Published online 2022 January 16.

Research Article



Mothers' Experiences of Husband's Involvement in Maternal Fetal Attachment: A Qualitative Study

Elieh Abasi¹, Narjes Sadat Borghei², Maryam Farjamfar³, Shahrbanoo Goli ¹ and Afsaneh Keramat ⁵,*

Received 2021 September 03; Revised 2021 November 03; Accepted 2021 December 24.

Abstract

Background: The involvement of husbands during pregnancy within the Iranian culture is one of the challenging topics. In this context, efforts to encourage male involvement in the maternal health issues can strengthen family bonds and consequently improve the relationships between men and women in societies.

Objectives: This qualitative study aimed to elucidate the involvement of husbands in maternal-fetal attachment (MFA).

Methods: Using a qualitative approach and conventional content analysis, 11 pregnant women referring to the health care centers in Sari, Iran were interviewed from March 2020 to February 2021. The participants met the maximum diversity criteria in terms of age, level of education, occupation, and socioeconomic status. Deep and unstructured interviews were utilized to obtain the research data. All the interviews were then transcribed verbatim and analyzed using the qualitative content analysis method developed by Graneheim and Lundman in MAXQDA Software.

Results: A total of 350 codes emerged from the data. We identified a main theme entitled 'husband support', which included four categories and 11 sub-categories. The main categories were: (1) empathic response, (2) emotional support, (3) continued support, and (4) attention to fetus.

Conclusions: Interventions to enhance husband support could increase MFA. Planning to promote male participation in pregnancy process is essential to promote maternal and child health.

Keywords: Attachment, Husbands, Involvement, Qualitative Research

1. Background

Maternal-fetal attachment (MFA) is assumed as the first and the most important relationship, associated with the manner and the quality of mother-fetus interactions (1, 2). Rubin cited in Brandon et al. provided the theoretical framework for prenatal attachment. Later, Cranley, Lumley, Condon, Leifer and Müller worked on this issue (3). There is compelling evidence that the emergence of MFA predicts maternal attitudes and behaviors following childbirth and mother-infant interactions (4). The role of men in the issues of pregnancy is thus one of the challenging topics. Therefore, some efforts to encourage male involvement in the maternal health issues can boost family bonds and consequently improve those between men and women in societies (5).

One of the inconveniences facing Iranian pregnant women is that their partners cannot understand their problems in this sensitive period. Moreover, there are several barriers to male involvement in prenatal care in Iran. As a result, mothers undergo a lot of pressure during pregnancy, and their fetal health status might also be affected. Thus, husbands are required to contribute more to the issues of pregnancy and maternal health (6). In a qualitative study, the couples expressed that the role of fathers was to support mothers emotionally and physically (7). Another qualitative research demonstrated that the more the pregnant women felt attached to their fetus, the more confident and the less worried they were about it (8).

In these studies, men's participation was considered important, but the manner of participation was not mentioned. Before encouraging men to participate in promot-

¹Student Research Committee, School of Nursing and Midwifery, Shahroud University of Medical Sciences, Shahroud, Iran

²Counseling & Reproductive Health Research Center, Golestan University of Medical Sciences, Gorgan, Iran

³School of Medicine, Shahroud University of Medical Sciences, Shahroud, Iran

⁴Department of Epidemiology, School of Public Health, Shahroud University of Medical Sciences, Shahroud, Iran

⁵Center for Health Related Social and Behavioral Sciences Research, Shahroud University of Medical Sciences, Shahroud, Iran

^{*}Corresponding author: Center for Health Related Social and Behavioral Sciences Research, Shahroud University of Medical Sciences, Shahroud, Iran. Tel: +98-2332395054, Email: keramatt@yahoo.com

ing maternal fetal attachment, the way of their participation should be examined from the perspective of women, and the results be used to design interventions to increase male participation.

2. Objectives

In order to gain a comprehensive understanding of how the spouse can participate in maternal attachment to the fetus, a holistic view is necessary. To the best of our knowledge, no Iranian studies have evaluated mothers' experiences in this field. Therefore, the present qualitative study aimed to explain the involvement of husbands in promoting MFA to pave the ground for improving this type of attachment through discovering the most important factors and implementing the most effective interventions in this domain.

3. Methods

Using a qualitative approach and conventional content analysis, 11 pregnant women referring to the health care centers in Sari, Iran, were interviewed from March 2020 to February 2021. The inclusion criteria were pregnant women over 20 weeks and willingness to participate in the study. All interviews were recorded and an informed consent was obtained from the participants. Purposive sampling was used to select participants. The selected participants met the maximum diversity criteria in terms of age, level of education, occupation, and socioeconomic status. Deep and unstructured interviews were applied to obtain research data.

The interview questions, considering the research purpose, were focused on the involvement of husbands in MFA development. For example, "what is the role of your husband in boosting your sense of attachment to the fetus?" or "how does the relationship between you and your husband affect your attachment to the fetus?"

The interview started with a broad and general question about pregnancy, followed by exploratory ones to encourage the participants and gain more in-depth information. Each interview lasted for an average of 60 - 90 minutes, and the place of interview (home or health care center) was determined by the participants. Sampling continued until data saturation was reached. Interviews were recorded upon the participants' permission with an MP3 recorder. The interviews were then transcribed verbatim.

Data analysis was performed simultaneously with data collection using the conventional content analysis method introduced by Graneheim and Lundman (9) in the MAXQDA Software. In content analysis studies, the results

are reported in the form of categories and/or themes. A category can consist of things, ideas, attitudes, conceptions, and experiences. Also, a theme is expressed as a unifying 'red thread' running via some categories, which gives special meaning to repetitive topics and experiences (10). This type of study inspects important meanings, such as obvious and hidden content, unit of analysis, meaning unit, abstraction, content area, code, category, and theme (9). After writing the text, each interview is read many times to come up with a concept and plunge into raw data. Then, meaning units are identified and abstracted and descriptive codes are given to them. After that, according to the similarities and differences, semantic units were formed into subcategories, and then correlative subcategories were located in the category. Finally, the categories were evolved into a theme.

In this study, Goba and Lincoln methods were used to ensure the accuracy and reliability of the research (11). To approve the data credibility, elongated engagements, maximum deviation, peer checking, and member checking were utilized. The data obtained from the study were confirmed by two experts. For confirmability, decision trail of the study steps and data analysis were determined, so that other investigators would be able to assess the research process. External auditing was performed to provide dependability. For transferability, a large and obvious profile of the attendants and the context of the study were prepared so that the reader can decide whether to use the results or not.

4. Results

The study participants included 11 pregnant women (age range: 22 - 37 years old) with a history of one to three pregnancies. The participants were housewives or employees, holding a high school diploma to master's degree (Table 1).

A total of 350 codes emerged from the data. We identified a main theme entitled 'husband support', which included four categories and 11 sub-categories. The main categories were: (1) empathic response, (2) emotional support (3) continued support, and (4) attention to fetus (Table 2).

4.1. Empathic Response

4.1.1. Mutual Understanding

Awareness of the mutual understanding between a couple is among the most basic steps towards promoting MFA. One of the participants stated that:

"... When my husband pays more attention to me, I feel more attached to the fetus. Whenever I feel annoyed, it suffices only if he understands me. When he understands me, I pay more attention to the fetus" (P2).

Table 1. Demographic Characteristics of the Participants					
Participant No.	Age	Level of Education	Occupation		
1	37	MA	Housewife		
2	30	Diploma	Housewife		
3	34	Bachelor	Housewife		
4	31	Bachelor	University student		
5	26	MA	Employee		
6	34	Bachelor	Employee		
7	25	Bachelor	Housewife		
8	32	Bachelor	Housewife		
9	22	Diploma	Housewife		
10	29	MA	Employee		
11	33	Diploma	Employee		

Another participant, who did not have a good relationship with her husband, said:

"My husband does not understand me. This issue bothers me."

4.1.2. Expressing Love to the Mother

In this line, one of the participants said that:

"... My husband made me more optimistic to the fetus. The baby has increased my husband's attention much more than ever. I feel nice. I have a very good feeling to the child. I love my husband more because I enjoy his love as much as I enjoy the baby in my womb" (P8).

4.2. Emotional Support

4.2.1. Create a Sense of Security

In response to the question "what should your husband do to increase your sense of attachment to the fetus?", one of the pregnant women also added that:

"... I want my husband to make me feel safe. I would like my husband to come home sooner and be by my side. When he is there, I am relieved that if something happens, he is by my side... he gives me a sense of security" (P6).

4.2.2. Create a Sense of Calm

As highlighted by one of the participants, a pregnant woman might become reassured and feel calm if her husband had shown much attention and love. She also added that:

"... My husband is paying much attention to me these days. These activities give me peace. The more my husband comforts me, the more I feel attached to the fetus" (P6).

4.2.3. Good Interaction

One of the participants stated that:

"... In our previous pregnancy, our interactions were low and mostly others around us intervened; but in this pregnancy we have a lot of interaction and this makes me more attached to the fetus" (P1).

4.3. Continued Support

4.3.1. Husband's Accompaniment During Pregnancy

Support and companionship would augment maternal interest in the fetus and her sense of attachment. One of the participants said that:

"... Of course, when he is with me, he shows kindness, cares for my needs, and even pays much attention to the child and me. When I visit the doctor or undergo ultrasounds, my husband accompanies me in this way, and I feel more attached to the baby..." (P7).

4.3.2. Presence During Childbirth as a Reassurance

The participants believed that as soon as they realized that their husbands were with them during childbirth, they felt a sense of reassurance:

"... I would like my husband to be by my side during childbirth; it reassures me and gives me more peace. It also makes me pay more attention to the baby because of my enthusiasm for pregnancy" (P10).

4.4. Attention to Fetus

Some behaviors by husbands can augment the sense of attachment to the fetus in pregnant women, as follows:

4.4.1. Counting Time for Childbirth

Most women would like to interact with their husbands about the fetus, such as talking about the fetus and determining the baby's delivery date:

"... We talk about the fetus once or twice a day. Last night, when he asked about the baby's delivery date, it meant the world to me. We calculated the date of childbirth together. My husband is eager to see the fetus" (P11).

4.4.2. Ways to Communicate with Fetus

Most participants expressed that they liked their husbands to be interested in the child and to do things like touching the belly, reading stories, talking to the baby, and expressing emotions. One of the participants stated that:

"... My husband expresses his interest in the baby and talks about it. He touches my belly and feels the baby's movements. It is good if he tells a story" (P6).

able 2. Sub-categories, Categories, and the Emerged Theme							
Theme	Husband Support						
Categories	Empathic response	Emotional support	Continued support	Attention to fetus			
Subcategories	Mutual understanding	Create a sense of security	Husband's accompaniment in pregnancy	Counting time for childbirth			
	Expressing love to the mother	Create a sense of calm	Presence during childbirth as a reassurance	Ways to communicate with fetus			
		Good interaction		Father's previous experiences			

4.4.3. Father's Previous Experiences

The husband's previous experiences could affect how they react to pregnancy and the fetus. For example, a pregnant woman whose husband was an only child, deprived of his father's blessings, said that:

"... As my husband lost his father from birth, I mean, before he was born, I feel that he cares much more for the fetus and does many things for it. Considering that my husband has no siblings, I feel that he wants to show more love to his child" (P9).

4.4.4. Father's Traits Affect Attachment

The husband's personality traits also affect how they play their roles as fathers in MFA. One of the participants said that:

"... If my husband was unmannerly and crabby, it could have a negative effect on my sense of attachment. My husband is always patient and well behaved; that is why I feel positive about my emotional state towards the fetus" (P3).

5. Discussion

This study evaluated the multi-dimensionality of male involvement in MFA development. The main finding of our research was 'husband's support' in the process of MFA during pregnancy. Also, empathy was further cited as one of the factors affecting the role of husbands in MFA. Similarly, the results of a study investigating the relationship between attachment style and empathy in nursing students showed that the safe attachment style was positively correlated with empathy. Empathetic couples accordingly have positive emotions towards each other, have constructive interactions, and try effective verbal communications (12).

The experiences of the participants in this study showed that mutual understanding plays an important role in creating the mother's attachment to the fetus. Previous studies have implied that immune and positive adult passionate relationships are related to quality of maternal-fetal relation; however, the findings have been conflicting, and the basic mechanisms have not been apparent (13, 14).

The results of the Walsh study determined that the nature of the maternal-fetal connection was best estimated by lovely caregiving responsiveness to spouse and mother's own psychological well-being (13). On the other hand, several surveys demonstrated no association between couple or family communication and MFA (15, 16). The experience of mothers in our study showed that expressing love to the mother is the cause of the mother's positive feeling for the fetus. One study suggested that men who cooperate actively in pregnancy and birth experience a greater affinity with their babies and partners and have an enhanced self-esteem for their spouses (17).

Father's traits affect attachment

Another aspect of the husband's involvement in the attachment development is emotional support. Participants stated that, the husband can bring security and peace to the mother. Similar to our finding, a study on women who had experienced a miscarriage found that the ones receiving emotional support had more chance of having a successful subsequent pregnancy compared to those who had benefitted no support (18). Yarcheski et al. in their metaanalysis found that social support was the most powerful psychological predictor of MFA (2). Also, Hopkins concluded that social support had a direct connection with both the quality and the level of MFA; so, rising social support is presumably helpful in increasing this relationship (19). Vehviläinen-Julkunen and Liukkonen concluded that the presence of fathers could make mothers feel more safe and comfortable (20). As the experience of mental health problems during pregnancy may impair the mother's ability to bond closely with the unborn baby (21, 22), probably due to the lack of emotional resources and maternal identity (23), the husband's emotional support can be effective in promoting MFA. Therefore, appropriate interventions can provide such a support by husbands. In our study, the continued support by the husband was another aspect of husband involvement in MFA. Moreover, most husbands in our study actively supported their spouses during pregnancy and in child birth process. Similarly, in a qualitative survey by Mortazavi, women expressed their desire to have the companionship of their husbands in the hospital until childbirth (6). Women reporting low levels of support from their husbands during pregnancy had thus more symptoms of emotional distress, increasing the risk of adverse consequences for mothers and babies (24). However, women enjoying the support of their husbands during pregnancy had relationships with higher quality levels (25). As demonstrated in the participants' opinions, the husband's inattention to the pregnant mother in various fields could reduce their motivation to participate in health-related behaviors. Thus, the husband could support his wife by being present during pregnancy and childbirth, which makes the pregnant woman reassured.

In our study, attention to the fetus was another way for the father to be involved in the attachment development. The participants expressed that they like their husbands to use various methods such as touching the belly, talking, selecting a given name, etc. to communicate with the fetus. They also tended to spend some time talking to their partners about the fetus and looking forward to the birth of the fetus. According to the study by Akbarzade et al., educating the fathers about the attachment skills and transferring them to their wives increased the MFA (26). The quality of fathers' thoughts and feelings is thus very important in shaping their reactions to the fetus (27). Therefore, fathers with more attachment to the fetus are more sensitive to the timely onset and continuation of prenatal care services to their wives, as well as their enough sleep, nutrition, and physical activities (28).

5.1. Limitations

This research is among the few studies focusing on men's role in pregnancy in the field of attachment. However, this study had some limitations. Application of our findings is limited due to the nature of qualitative studies. Although we chose the maximum diversity approach to choose participants, the results could not be generalized to all Iranian women. Since the husband plays a very significant role in creating attachment to the fetus, we offer that in future surveys, some interviews with the spouses be organized in order to gain new findings.

5.2. Conclusions

Our results suggested that husband-centered interventions can lead to a favorable relationship among couples. In this regard, developing intervention programs focused on the role of husbands in educational programs and services for pregnant women is one of the important issues in advancing health care goals. It is proposed to arrange plans for enhancing the support given to mothers by their husbands to promote understanding about these topics in the attempt to keep healthy mothers.

Footnotes

Authors' Contribution: E. A. and A. K. contributed to the development and design of this research. E. A. and N. S. B. collected the required data; and content analysis was performed by the team of researchers.

Conflict of Interests: Authors declare that they have no conflict of interests

Data Reproducibility: The data presented in this study are openly available in one of the repositories or will be available on request from the corresponding author by this journal representative at any time during submission or after publication. Otherwise, all consequences of possible withdrawal or future retraction will be with the corresponding author.

Ethical Approval: This study was approved by the Ethical Committee of Shahroud University of Medical Sciences (Ethics No.IR.SHMU.REC.1398.019).

Funding/Support: This study is part of a PhD thesis (code: 9808) supported by Shahroud University of Medical Sciences.

Informed Consent: Informed consent was obtained from all participants.

References

- Alhusen JL. A literature update on maternal-fetal attachment. J Obstet Gynecol Neonatal Nurs. 2008;37(3):315–28. doi: 10.1111/j.1552-6909.2008.00241.x. [PubMed: 18507602]. [PubMed Central: PMC3027206].
- Yarcheski A, Mahon NE, Yarcheski TJ, Hanks MM, Cannella BL. A metaanalytic study of predictors of maternal-fetal attachment. *Int J Nurs Stud.* 2009;46(5):708–15. doi: 10.1016/j.ijnurstu.2008.10.013. [PubMed: 19081091].
- Brandon AR, Pitts S, Denton WH, Stringer CA, Evans HM3083029. A
 history of the theory of prenatal attachment. J Prenat Perinat Psychol Health. 2009;23(4):201. [PubMed: 21533008]. [PubMed Central:
 PMC3083029].
- Siddiqui A, Hägglöf B. Does maternal prenatal attachment predict postnatal mother-infant interaction? Early Human Development. 2000;59(1):13-25. doi: 10.1016/s0378-3782(00)00076-1.
- 5. Carter M. Husbands and maternal health matters in rural Guatemala: wives' reports on their spouses' involvement in pregnancy and birth. Soc Sci Med. 2002;55(3):437–50. doi: 10.1016/s0277-9536(01)00175-7.
- Mortazavi F, Mirzaii K. [Concerns and expectations towards husbands' involvement in prenatal and intrapartum cares: A qualitative study]. Payesh. 2012;11(1):51–63. Persian.
- Greenhill E, Vollmer RL. Perceptions of a Father's Role during a Couple's First Pregnancy. Fam Consum Sci Res J. 2019;48(1):52-64. doi: 10.1111/fcsr.12327.
- Ross E. Maternal—fetal attachment and engagement with antenatal advice. Br J Midwifery. 2012;20(8):566-75. doi: 10.12968/bjom.2012.20.8.566.
- Graneheim UH, Lundman B. Qualitative content analysis in nursing research: concepts, procedures and measures to achieve trustworthiness. *Nurse Educ Today*. 2004;24(2):105-12. doi: 10.1016/j.nedt.2003.10.001. [PubMed: 14769454].

- Graneheim UH, Lindgren BM, Lundman B. Methodological challenges in qualitative content analysis: A discussion paper. Nurse Educ Today. 2017;56:29–34. doi: 10.1016/j.nedt.2017.06.002. [PubMed: 28651100].
- Cope DG. Methods and meanings: credibility and trustworthiness of qualitative research. Oncol Nurs Forum. 2014;41(1). doi: 10.1188/14.ONF.89-91. [PubMed: 24368242].
- Momeni Kh, Seyedi MS, Rezaei K, Ebrahimi M. The mediating role of spouses' empathy in the relationship between leisure patterns with happiness and marriage stability. Women Fam Educ Cult J. 2014;9(28):108-23. Persian.
- Walsh J, Hepper EG, Marshall BJ. Investigating attachment, caregiving, and mental health: a model of maternal-fetal relationships. BMC Pregnancy Childbirth. 2014;14:1-9. doi: 10.1186/s12884-014-0383-1. [PubMed: 25406583]. [PubMed Central: PMC4241222].
- Bloom KC. Perceived relationship with the father of the baby and maternal attachment in adolescents. J Obstet Gynecol Neonatal Nurs. 1998;27(4):420-30. doi: 10.1111/j.1552-6909.1998.tb02666.x. [PubMed: 9684205].
- Mercer RT, Ferketich S, May K, DeJoseph J, Sollid D. Further exploration of maternal and paternal fetal attachment. Res Nurs Health. 1988;11(2):83-95. doi:10.1002/nur.4770110204. [PubMed: 3363178].
- Zachariah R. Maternal-fetal attachment: influence of mother-daughter and husband-wife relationships. Res Nurs Health. 1994;17(1):37-44. doi:10.1002/nur.4770170106. [PubMed: 8134610].
- May KA. Three phases of father involvement in pregnancy. Coping with life crises. Springer; 1981. p. 115–27.
- Bashiri A, Harlev A, Agarwal A. Recurrent Pregnancy Loss. Springer; 2016. doi: 10.1007/978-3-319-27452-2.
- Hopkins J, Miller JL, Butler K, Gibson L, Hedrick L, Boyle DA. The relation between social support, anxiety and distress symptoms and maternal fetal attachment. *J Reprod Infant Psychol*. 2018;36(4):381-92. doi: 10.1080/02646838.2018.1466385. [PubMed: 29727202].
- 20. Vehviläinen-Julkunen K, Liukkonen A. Fathers' experiences of child-

- birth. Midwifery. 1998;14(1):10-7. doi: 10.1016/s0266-6138(98)90109-7.
- Condon JT, Corkindale C. The correlates of antenatal attachment in pregnant women. *Br J Med Psychol.* 1997;70 (Pt 4):359–72. doi: 10.1111/j.2044-8341.1997.tb01912.x. [PubMed: 9429755].
- Rubertsson C, Pallant JF, Sydsjö G, Haines HM, Hildingsson I. Maternal depressive symptoms have a negative impact on prenatal attachment - findings from a Swedish community sample. J Reprod Infant Psychol. 2014;33(2):153-64. doi: 10.1080/02646838.2014.992009.
- McNamara J, Townsend ML, Herbert JS. A systemic review of maternal wellbeing and its relationship with maternal fetal attachment and early postpartum bonding. *PLoS One*. 2019;14(7). e0220032. doi: 10.1371/journal.pone.0220032. [PubMed: 31344070]. [PubMed Central: PMC6657859].
- Glazier RH, Elgar FJ, Goel V, Holzapfel S. Stress, social support, and emotional distress in a community sample of pregnant women. J Psychosom Obstet Gynaecol. 2004;25(3-4):247-55. doi: 10.1080/01674820400024406. [PubMed: 15715023].
- Durtschi JA, Soloski KL, Kimmes J. The Dyadic Effects of Supportive Coparenting and Parental Stress on Relationship Quality Across the Transition to Parenthood. J Marital Fam Ther. 2017;43(2):308-21. doi: 10.1111/jmft.12194. [PubMed: 27701778].
- 26. Akbarzade M, Setodeh S, Sharif F, Zare N. The effect of fathers' training regarding attachment skills on maternal-fetal attachments among primigravida women: A randomized controlled trial. *Int J Community Based Nurs Midwifery*. 2014;2(4):259–67. [PubMed: 25349869]. [PubMed Central: PMC4201213].
- Vreeswijk CM, Maas AB, Rijk CH, van Bakel HJ. Fathers' experiences during pregnancy: Paternal prenatal attachment and representations of the fetus. *Psychol Men Masc.* 2014;15(2):129–37. doi: 10.1037/a0033070.
- Lindgren K. Relationships among maternal-fetal attachment, prenatal depression, and health practices in pregnancy. Res Nurs Health. 2001;24(3):203-17. doi: 10.1002/nur.1023. [PubMed: 11526619].