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Iranian Husbands' Involvement in Prenatal Care, Childbirth and Postpartum: Viewpoints of the Mothers

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ABSTRACT

BACKGROUND AND OBJECTIVE: Pregnancy is one of the most important, critical and at the same time glorious periods in every woman's life that the male involvement plays an important role in promoting prenatal, childbirth, and postpartum care and health of both mother and infant. The aim of this study was to determine the level of male involvement in these periods in Iran.

METHODS: This cross-sectional study was conducted in six provinces of Iran in 2015. Totally, 2788 mothers with a history of childbirth between 2-6 months were randomly selected for classification. The data were collected using a researcher-made questionnaire containing 34 individual, family and environmental questions and 17 ones were related to the male involvement based on Likert scale with the score of 1-5. Mean higher than 3.5 was considered as higher than average or sufficient involvement. The data were simultaneously collected from health records and through interviews with mothers.

FINDINGS: The mean age of 2713 mothers under study was 27.7±5.5 years. From the mothers' point of view, the mean of men's involvement was 3.60±0.72 from at least 0.71 to at most 5.0. The minimum and maximum participations were observed in training class and dealing rationally with the mothers' weakness and faintness (2.5±1.6) and (4.4±0.9), respectively. There was a significant relationship between men's participation and mother's occupation, husband's education, number of pregnancies and children, unwanted pregnancy, bad memories of postpartum period and the areas of maternal death ($P<0.05$).

CONCLUSION: The results showed that Iranian husbands' involvement in prenatal care, childbirth and postpartum has the acceptable level.

KEY WORDS: *Men's involvement, Husbands' involvement, Prenatal care, Postpartum care, Viewpoints of the mothers, Iran*.

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Introduction

Pregnancy is one of the most important, critical, and at the same time glorious periods of every woman's life. The physical, psychological health of women during this period has significant effects on the health of the fetus, the success of natural vaginal delivery and breastfeeding. Women who have benefited from the support of family members and relatives, especially their spouses, during pregnancy are more likely to tolerate the stresses and difficulties of pregnancy and childbirth (1).

Reproductive health, with its broad implications, emphasizes the importance of the role of fathers and mothers in passing pregnancy and childbirth, and the upbringing and maintenance of children. Men's participation in various aspects of reproductive health leads to the strengthening of family relationships and the increasing sense of responsibility of men towards the education and health of children (2, 3).

But despite the importance of male participation, the status of men is still controversial in pregnancy related events. For some, pregnancy and childbirth is an exclusively women's experience, and the role of men in it must deliberately be secondary. Others believe reproductive affairs are an important stage for subtle interactions and dialogue about gender relations, the desired distribution of power, and the right time to promote couples. Efforts to promote men's participation in women's health and fertility can promote the quality of male-female relationships at home and in society (4, 5).

Given the positive role of men in improving the outcomes of prenatal and postnatal care, men's participation today is considered as an important strategy in achieving the MDGs such as women's empowerment, gender equality and maternal health promotion (6, 7). The World Health Organization considers men's participation in safe parenting programs, including facilitating access to and use of perinatal care, increasing awareness of perinatal care, and participation in delivery planning (8).

The results of studies on the extent of participation of men in supporting their spouses indicate that the level of participation in different regions of the world is very different. In a study by Mortazavi et al., 25% of women reported that their spouse's participation in prenatal care was low, with 33% reporting female non-participation or low participation in home affairs. 61% of women had not received any health advice from their spouse, or at least they had been advised. The level of awareness 77% of men about pregnancy problems was low (9).

In the study of Redshaw et al, the rate of participation in the care of the newborn in fathers who had a postpartum maternity leave, had a good financial condition and had a pregnancy was more than the other fathers, Also, 78.9 percent of the fathers participated in the maintenance of the child when the spouse was out of work or at work. Participation rate in the field of play with the child was 96.6%, nutrition aid was 87.3%, clothing replacement was 86.9%, and bathing 77.3% (10). A study in Nigeria reported that 97.4% of men encouraged spouses to visit the clinic, 96.6% of men paid for services, and 94.6% accompanied their wives to the clinic. And 83/3 men stay at the clinic at the time of the visit of their spouse (11).

The importance of men's role in promoting the health of mothers and infants, including promotion of prenatal care, infant care, nutrition and breast-feeding, postpartum family planning, and maternal mental health (13, 12), make it essential that each country and the region frequently examines the quantity and quality of male participation and its facilitating and preventive factors, and based on it, to design and implement evidence-based interventions. Therefore, the aim of this study was to determine the level of male participation in prenatal and postnatal care from the viewpoint of mothers and the factors affecting it in Iran.

Methods

This cross-sectional study was carried out after obtaining permission from the ethics committee of Ahvaz Jundishapur University of Medical Sciences with AJUMS.REC.1393.119 code and informed consent about the wife of the fertile age (10-49 years). According to a national survey of the process of death of mothers in Iran during the years 1386-91 and the division of Iranian provinces into three groups, low risk, moderate and high risk of death of mothers (14), six provinces including two provinces (Chaharmahal Bakhtiari and Hamadan).

With fewer than 15 deaths per 100,000 live births from low-risk areas, two provinces (West Azarbaijan and Khorasan Razavi) with 15-25 deaths from medium-risk areas and two provinces (Golestan and Hormozgan) with death above 25 Deaths from high risk areas were randomly selected. In each selected province, according to the sample size estimation and the prediction of more than 400 mothers, 24 urban and rural health centers of the Iranian public sector were randomly selected according to the geographical distribution of the population. In selected health centers, the health records

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of mothers who were covered during pregnancy and delivered more than two months before the study were studied. Data were collected using a researcher-made questionnaire containing two parts.

The first part of the questionnaire was based on the framework of maternity health care formulas that included the area under study, residential area (urban / rural), urban population of the studied cities, mother's age, mother's education and mother's occupation, spouse's age, spouse's education and spouse's occupation, prenatal care, number of pregnancies, abortions, stillbirths, live children, faced with risk factors and illness during pregnancy, the time when the first prenatal care was taken, the number of prenatal and postpartum care, and the maternal body mass index Referring to the selected health centers and completing the documentation of the health record.

The second part of the questionnaire contains the placeholders including the type of residential home (apartment / non-apartment), the ownership of a residential home (personal / impersonal), the distance between the place of residence to the service center (on foot and by the vehicle), pregnancy conditions (wanted and unwanted) , mother's marriage, marital relationship with her husband, having bitter memories related to the period of pregnancy, delivery and postpartum, and 14 questions related to the participation of men in pregnancy, childbirth and postpartum care, and 3 questions related to expectations and the mothers' expectations of their husbands were completed through interviews with selected mothers. The validity of the questionnaire was confirmed by a questionnaire from 7 people including 2 experts working in the Ministry of Health of the Mothers' Health Department, 2 faculty members of the faculty members, 3 midwifery experts working in the health centers, and its reliability was 89% by Cronbach's test.

Mothers who were covered by a health center during the recent pregnancy had at least one history of care during the recent pregnancy and had maternal delivery between two and six months before the study. Therefore, mothers without a health record and lacking a history of care and delivery with a history of less than 2 months and more than 6 months were excluded from the study. To score the answers to questions about personal, family and environment variables with coding, and 17 questions about male participation in the scale of 5 Likert levels (very high, high, moderate, low and very low), respectively, a score of 5 to 1 data and the questions returned to Excel in the same way (slightly discrete). To judge inadequate participation, an average of less than or equal to 3.5 and an adequate participation of an average of 3.5 (out of a maximum of 5) was the criterion. Data were analyzed by Chi-Square test for nominal quality variables and Stepwise Backward Logistic Regression Model for two variables classified in SPSS23 software and $p < 0.05$ was considered significant.

Results

Of the 1510 mothers living in urban areas and 1278 mothers living in rural areas participating in the study, they responded to a total of 95% to 97.7% of each of the total questions. From the mothers' point of view, the mean score of male participation rate (from 5 ceiling points) was 3.60±0.72 (table 1). The average participation rate of men in various cases related to care and support during pregnancy and after delivery (from 5 ceiling levels), in 8 cases above 3.5 (sufficient participation) and in 6 equal to or less than 5 / 3 (insufficient participation).

The highest expectation of mothers of the spouse is the presence of the spouse at the time of delivery in the maternity ward (table 2). Men's participation in support and assistance related to pregnancy, childbirth and postpartum of their spouse was significantly associated with some factors and with some factors without relevance. Participation of men in pregnancy, childbirth and postpartum care with 15 individual variables, familial or social variables had a significant relationship (table 3).

Data were analyzed by two-way analysis, between the levels of male participation and variables including location (urban / rural), urban population of the cities surveyed, the number of care during pregnancy, family relationship with the spouse, the number of marriage of the mother , Spouse's occupation, pre-natal care history, history of abortion, death history, type of residential home (apartment / non-apartment), home ownership, maternal BMI were not significant. In analyzing the data, two-variable analysis of two variables in all 15 variables which has a significant relationship with male participation level, in multivariate analysis (Backward LR), the correlation of several variables was confirmed. Table 4 shows the relationship between individual, family and social variables in parallel with the level of male participation. In multivariate analysis, with eight test steps, eight variables were finally confirmed as influential factors in men's participation, and seven

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other variables included the beginning of the first care of the pregnancy, the distance between the home and the health unit on foot and with the vehicle, the age and education of the mother, the age of the spouse, the bitter memories of the pregnancy period have been eliminated as ineffective factors in male participation.

Table 1. Level of participation of men in prenatal care, maternity and postpartum care

Frequency of participation level from the viewpoint of mothers Partnership items in line	Very low and low	Average	much and too much	Total mothers responding	Mean±SD
Timely attendance at home	138(5)	951(35.1)	1620(59.5)	2707	3.8±0.9
Welfare and recreation facilities	280(10.4)	818(30.3)	1603(59.3)	2701	3.7±1.0
Assistance in doing homework	117(4.3)	511(19)	2068(76.7)	2696	4.1±0.9
Supplying the food needed for pregnancy	141(5.2)	614(22.6)	1958(72.2)	2713	4.0±1.0
A reasonable deal with low home affairs due to the weakness of the pregnancy, childbirth, and postpartum periods	120(4.4)	275(10.2)	2313(85.4)	2708	4.4±0.9
A reasonable attitude to the lack of sexual demands due to the restrictions of the period of pregnancy and postpartum	162(6)	299(11)	2245(83)	2706	4.2±0.9
Reminding and assisting in the timely use of drug and other prescription drugs	557(20.6)	718(26.5)	1431(52.9)	2706	3.3±1.6
Accompanying a referral to a health or diagnostic center	302(11.2)	551(20.4)	1854(68.5)	2707	3.8±1.3
Attending educational classes or studying for prenatal, childbirth and postpartum care	1105(40.9)	824(30.5	775(28.7)	2704	2.5±1.6
willingness to attend maternity (at birth)	195(7.2)	321(11.9)	2184(80.9)	2700	4.2±1.2
Requesting relatives to help with housework	501(18.5)	479(17.7)	1733(63.9)	2713	3.5±1.6
Recommendation or insistence on normal delivery	1055(39)	386(14.3)	1265(46.7)	2706	2.7±2.0
Awareness of the common complications of pregnancy, childbirth and postpartum, and the lack of understanding of it.	606(22.7)	814(30.4)	1254(46.9)	2674	3.2±1.5
Tear and dry or wash the baby	784(29.1)	790(29.3)	1121(41.6)	2695	3.0±1.6

Table 2. Expectations of mothers from the spouse for the support needed during pregnancy, childbirth and postpartum.

Level and average expectation Expectations of the spouse in line	Very low and low	Average	much and too much	Total mothers responding	Mean±SD
Participate in pregnancy-related sessions and classes until and after delivery	699(26.4)	709(26.8)	1241(46.8)	2649	3.1±1.6
Attended maternity during delivery process	176(6.6)	208(7.8)	2287(85.6)	2671	4.5±1.2
Lack of referral to the workplace during the last month of pregnancy and after delivery to do home affairs	428(15.9)	574(21.3)	1694(62.8)	2696	3.7±1.5

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Table 3. Factors Affecting Men's Participation Level in Pregnancy, Childbirth, and Postpartum Care from the Mothers' Perspective

The factors studied	Participation rate	Inadequate participation	Adequate participation	Total mothers responding	P-value
Begin the first pregnancy care	The first trimester of pregnancy	695(39.0)	1086(61.0)	1781	0.036
	The first trimester of pregnancy	159(46.0)	187(54.0)	346	
	The first trimester of pregnancy	15(48.4)	16(51.6)	31	
Distance between home and health unit (on foot)	Up to a quarter of an hour	715(38.4)	1146(61.6)	1861	0.001
	More than a quarter	379(45.2)	460(54.8)	839	
Distance between home and health unit (by vehicle)	Up to 5 minutes	889(39.5)	1362(60.5)	2251	0.008
	More than 5 minutes	185(46.1)	216(53.9)	401	
Mother's age	Up to 28 years old	516(38.5)	826(61.5)	1342	0.024
	More than 28 years	565(43.3)	772(57.7)	1337	
Mother's education	Illiterate to high school	494(43.1)	653(56.9)	1147	0.008
	High school to college	567(38.3)	913(61.7)	1480	
Mother's job	housewife	1020(41.4)	1446(58.6)	2466	0.000
	Employed	50(26.9)	136(73.1)	186	
Spouse's age	Up to 30 years	413(37.5)	687(62.5)	1100	0.008
	More than 30 years	661(42.3)	902(57.7)	1563	
Spouse's education	Illiterate to high school	600(46.0)	705(54.0)	1305	0.000
	High school to college	466(35.1)	862(64.9)	1328	
Number of pregnancy	1-2 times	684(38.2)	1107(61.8)	1791	0.000
	More than 2 times	389(42.2)	453(53.8)	842	
Number of previous children	0-2 child	819(38.9)	1288(61.1)	2107	0.001
	More than 2 children	280(46.3)	325(53.7)	605	
Conditions of pregnancy	Wanted	875(37.3)	1868(62.7)	2343	0.000
	Unwanted	221(60.1)	147(39.9)	368	
Areas examined according to the risk of maternal death	Low risk	385(44.8)	475(55.2)	860	0.001
	Medium risk	362(41.0)	520(59.0)	882	
	High risk	354(36.1)	626(63.9)	980	
Total risk factors or diseases before and during pregnancy	No risk factors or disease	325(36.7)	560(63.3)	885	0.003
	Has a risk factor or a disease	776(42.2)	1061(57.8)	1837	
Having bitter memories of pregnancy	Lacks bitter memories	616(37.6)	1023(62.4)	1639	0.000
	Has bitter memories	455(44.6)	565(55.4)	1020	
Having bitter memories of the delivery and postpartum stages	Lacks bitter memories	409(35.3)	751(64.7)	1160	0.000
	Has bitter memories	663(44.2)	837(55.8)	1500	

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Table 4. Relationship between personal, familial and social variables with the level of male participation in Iran

Variable name	OR Exp(B)	CI-95%	P-value
Mother's job (housewife / employed *)	0.576	0.378-0.888	0.013
Spouse education (illiterate to high school / high school to college) *	0.699	0.576-0.848	0.000
Pregnancy (up to two times / more than twice *)	1.465	1.085-1.978	0.013
Number of children (up to 2 children / more than 2 children *)	0.702	0.496-0.992	0.045
Conditions of pregnancy (wanted / unwanted)	2.449	1.825-3.285	0.000
Geographic areas based on the death rate of mothers (low risk / moderate and high risk *)	0.747	0.611-0.913	0.004
Total risk factors or diseases before and during pregnancy (no risk factors / has risk factors)	1.194	0.977-1.458	0.083
Bitter memories of delivery and postpartum periods (without bitter memories / bitter memories *)	1.430	1.180-1.733	0.000
Constant	1.293		0.353

*Referrer Group

Discussion

The study showed that the highest expectations of mothers was the presence of the spouse at the place of delivery. Perhaps few of the policymakers and administrators imagine that the presence of their spouses at maternity place is so important for mothers of Iran. Contrary to the subjective perception of some who believe that the creation of facilities for the presence of spouses in the place of delivery is believed to be affected by Western culture, the Iranian mothers' desire for spouses to attend birth is sometimes more than Western developed countries. In the study of Dragonas et al. in Greece, a maximum of 73% of mothers preferred their wife to be with them at the time of delivery (15). Perhaps the great desire of Iranian mothers for the presence of a spouse at the place of delivery is that if their spouse at birth is suffering from the complications of the childbirth process, they are less likely to become malignant, and their participation after delivery is greater. And this can be done by studying others that the father's involvement in pregnancy and at the place of delivery leads to a stronger relationship between father and child and increases the father's responsibility in resolving postpartum problems. Let it be the same (17-16).

The findings of this study and other researchers may suggest that Aguiar et al. (2005) encourage men to participate in prenatal care as an important first step in promoting the commitment of men to maternal and neonatal health (18). This study showed that from the viewpoint of mothers of Iran, men had the greatest contribution to understanding the reasons for not doing homework due to the weakness and anxiety caused by pregnancy and childbirth. The findings can be attributed to a higher level of men's education and a greater understanding of them with the common problems of pregnancy and postpartum. It is natural that men who have a higher participation in the above-mentioned outcomes are likely to increase their participation in other matters related to pregnancy, childbirth, and postpartum. The significant effect of education on male participation was shown in this study and others (19).

The present study showed that the lowest participation rate of men was in educational or study classes about prenatal care and delivery. This finding may be in some way related to the views of mothers. Because in examining the expectations of mothers of the spouses, the lowest expectations of mothers about the company's spouse was in the classroom, which was reported by Simbar et al. More than 95% of the participants agreed that men should also be careful about care Pregnancy was not trained (20). The discrepancy between the findings of this study and the study may be related to the socioeconomic status, as in the Simbar study, the sample was from the Iranian capital. The inadequate presence of men in maths and lower waiting periods in this regard can be a deterrent to holding training courses for couples. This is when the study Jungmarker et al. Emphasized that health care providers should identify male needs and combine a family-centered approach to prenatal care (21).

In a qualitative study that was conducted with a deep interview of 14 couples and 8 mothers providing care, caregivers unanimously believed that the provision of coupled services provided the quality of care and

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understanding of pregnant women to health information, and often pregnant women and their spouses can better reflect and express their attitudes (22). In a study that evaluated the impact of male participation on maternal health education in Nepal, the average increase in health knowledge in mothers who participated with their husbands' attendance at training sessions was almost twice the number of mothers who were alone in educational sessions Attended (23). One of the findings of this study was the significance of the extent of participation of men in geographical areas with different maternal mortality rates, and the extent of male participation, contrary to expectations, from areas with lower death rates to areas with high maternal mortality rates increased.

One of the reasons for this can be related to the expectations of mothers in different regions of Iran, which are also related to the economic and social situation and the level of literacy. It is natural that mothers who are more educated and have a higher economic status expect more from their spouse's participation. In this study, the level of male participation in pregnancy and postpartum care was lower in unwanted pregnancies. The finding suggests that unwanted pregnancy can significantly reduce spouse's wit and if unwillingness is on the part of men, it will probably have more impact, and thus women will be more reluctant to face their spouse.

In this study, the level of male participation to promote the delivery of their wife was lower than the normal method. Considering the high rate of delivery of cesarean section in Iran (about 48%), three major reasons including social and demographic factors, medical causes and non-medical causes were raised (24), Perhaps one of the factors influencing the role of men in choosing a cesarean section or unwillingness to have normal delivery. The finding could be in contradiction with the expectations of the World Health Organization, which has declared participation in the planning of maternity by men (8).

According to the study, to determine the strategies for decreasing the rate of cesarean delivery in Iran and to present four effective strategies including standardization of cesarean section delivery, education, regulation and supervision of the performance of doctors (25), by providing educational services to men and creating changes in their attitude may increase men's participation in childbirth planning, thereby providing one of the necessary conditions for reducing the delivery of cesarean section. Findings of this study showed that the number of pregnancies, the number of maternal delivery and the number of children increased, man participation significantly decreased. The above findings may be associated with a gradual decline in the desire for more childbearing in Iran. In other words, Iranian men may have less competition to accept the paternal role and responsibilities associated with it as children become more involved. The above findings should be a significant point for healthcare providers, who will provide maternal and foster care services along with promoting child-rearing, counseling and education.

From the findings of this study, it can be concluded that the rate of participation of Iranian men in prenatal care, delivery and postpartum is relatively high and many factors affect the participation rate of men. Considering the undesirable effect of male inadequate participation on the health of mothers and infants, it is suggested that pregnant women in Iran provide educational, counseling and support services with a family-centered approach, taking into account effective factors and prioritizing them. Provide care during pregnancy, delivery and postpartum.

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