

Iranian men's attendance in pregnancy

Arezo Aliabedian¹, Mouloud Agajani Delavar^{2,*}, Arsalan Khan Mohammadi¹

¹ Department of Psychology, Ayatollah Amoli Branch, Islamic Azad University, Amol, Iran

² Infertility and Reproductive Health Research Center, Health Research Institute & Department of Midwifery, Babol University of Medical Sciences, Babol, Iran

Received: 24 Aug 2015

Accepted: 2 Nov 2015

Abstract

Background: The benefits of male involvement in pregnancy have recently gained recognition. The aim of this study was to explore the prevalence of Iranian men's attendance during pregnancy and its association with socio-demographic factors in Babol, Iran. This study also aimed to improve the male involvement in maternal health in Iran.

Methods: In a cross sectional study, a total number of 600 pregnant women, attending the antenatal clinics in both public and private medical centers from Feb. to Sep. 2015, were selected through a systematic random sampling method. A semi-structured questionnaire comprising 10-item, two-choice questions (Yes-No) elicited information about the men's attendance at antenatal clinic, their help with household chores, their attendance at counseling sessions, and their paying for the pregnancy service bills.

Results: According to the results, 414 husbands under study (69.0%) accompanied their wives to the antenatal clinic during the pregnancy. Nearly, less than half of the husbands (42.5%) helped their wives with household chores during pregnancy. After adjusting for suspected confounding factors, the OR of Iranian men's attendance at antenatal clinic for men with special job was 2.76 (95% CI, 1.26 - 6.05; P = 0.011), and for men with low educational level, it was 0.404 (95% CI, 0.18 - 0.90; P = 0.026). In addition, the OR of Iranian men's attendance at household chores for men with special job was 2.60 (95% CI, 1.43 - 4.74; P = 0.002), and for men with educational level between 7 to 12 years, it was 0.404 (95% CI, 0.18 - 0.90; P = 0.002). No significant associations were found between Iranian men's attendance in pregnancy with the age of men and women, income, residence status, education of women, job of women, birth order, or pregnancy intention.

Conclusion: The findings of this study indicated that the Iranian men's attendance in pregnancy is low. The Iranian Ministry of Health should strive to provide adequate guidelines for the development of male involvement in pregnancy.

Keywords: Pregnancy, Antenatal care, Male involvement, Iran

Introduction

At the 1994 International Conference on Population and Development, a new paradigm was established, whose aim was to emphasize the active

role of men in reproductive health (1). In addition, the World Health Organization (WHO) gave Strategies to increase male involvement in maternal health to improve health cares (2). In most Western countries, male involvement in pregnancy and childbirth has been

*Corresponding author: Dr. Moloud Aghajani, Delavar, Infertility and Reproductive Health Research Center, Health Research Institute & Department of Midwifery, Babol University of Medical Sciences, Babol, Ganjafrouz, Iran, Tel: +98-11-32360714, Email: moloodaghajani@yahoo.com

reported to be incrementally on the rise (3, 4). Male involvement in maternal health is a relatively new concept in such developing countries as Iran (5). Given their cultural conditions and personality types, men are not able to attend much to maternal health (6-8). Despite all the breakthroughs in health care policies, the Ministry of Health's Strategic Plan does not specifically include the number of services available to men at the maternal-child health clinics. Traditionally, Iranian ministry of Health and Primary Health Care facilities have their focus on women and constantly discourage male involvement.

Understanding the differential meanings of male involvement to men and women may lead to better predictions regarding the future attendance of males (9, 10). Therefore, the aim of this study was to explore the prevalence of Iranian men's attendance during pregnancy and its association with socio-demographic factors in Babol, Iran. This study also aimed to improve the male involvement in maternal health in Iran.

Materials and Methods

The Ethical Committees of the Medical Faculty of the Islamic Azad University, Ayatollah Amoli Branch, and Babol University of Medical Sciences approved this study. Informed written consents were also obtained from all the participants.

In a cross sectional study, a total number of 600 pregnant women, attending the antenatal clinics in both public and private medical centers from Feb. to Sep. 2015, were selected through a systematic random sampling method. A semi-structured questionnaire comprising 10-item, two-choice questions (Yes-No) elicited information about the men's attendance at antenatal clinic, their help with household chores, their attendance at counseling sessions, and their paying for the pregnancy service bills. The men and women who were separated during pregnancy and had one of the causes of death and divorce were excluded from the study.

The minimum sample size was estimated to be 600 individuals considering the 50% of the father's attendance, 50% of the lack of attendance, the margin error of 4%, and 95% of confidence level for the application of the Cochrane formula.

Men's attendance in pregnancy: A semi-structured questionnaire comprising 10-item, two-choice questions (Yes-No) elicited information about the men's attendance at antenatal clinic, their help with household chores, their attendance at counseling sessions, and their paying for the pregnancy service bills. This questionnaire was pre-tested by twenty subjects, and the ambiguous questions were re-structured before use. The reliability of the male involvement questionnaire was estimated to be 0.72 through Cronbach's alpha internal consistency, and 0.68 for the whole questionnaire, which was measured through Split-Half using Spearman-Brown formula. The reliability of the Men's feedback questionnaire on the participation of men was estimated to be 0.71 through Cronbach's alpha and 0.65 by Split-Half.

Socio-demographic and obstetric factors: The socio-demographic factors include age, educational level, the marriage age of the respondents and the information regarding the residence status, occupation and income of the participants. The data related to parity and pregnancy type were assessed in the interview.

All analyses were performed with SPSS (version 16.0). Descriptive statistics were used to describe socio-demographic data. Multiple logistic regression was used to determine the relationship between men's attendance in pregnancy and socio-demographic factors. Cronbach's alpha statistical method was used to calculate reliability coefficient. The significance level of $\alpha=0.5$ was considered for all assumptions.

Results

The mean age of women and men was 27.5 ± 5.4 and 31.5 ± 5.6 , respectively. A total 498 (83.0%) of women were work outside and 17% (102/600) were housewife. For hundred and fourteen (69.0%) of the husbands (69.0%) accompanied their wives to the antenatal clinic during the pregnancy. Nearly, less than half of the husbands (42.5%) helped their wives with household chores during the pregnancy. Around 62.2% husbands encouraged their wives to attend antenatal clinic, counseled their wives to have adequate nutrition (71.0%), and paid for the antenatal service bills (94.5%).

Table 1. Demographic characteristics of respondents (n = 600)

Variables	Total	Attendance at antenatal clinic			P	Household chores		p
		Yes	No	Yes		no		
	N (%)	N (%)	N (%)	N (%)	N (%)	N (%)		
Wife's age								
<25	174(29.0)	115(66.1)	59(33.9)	0.252	65(37.4)	109(62.6)	0.214	
25-34	367(61.2)	262(71.4)	105(28.6)		166(45.2)	201(54.8)		
≥35	59(9.8)	37(62.7)	22(37.3)		24(40.7)	35(59.3)		
Husband's age								
<25	50(8.3)	30(60.0)	20(40)	0.101	16(32.0)	34(68.0)	0.275	
25-34	384(64.0)	276(71.9)	108(28.1)		165(43.0)	219(57.0)		
≥35	166(27.7)	108(65.1)	58(34.9)		74(44.6)	92(55.4)		
Wife's education (years)								
<9	36(6.0)	23(63.2)	13(36.1)	0.013	16(44.4)	20(55.6)	0.245	
9-12	348(58.0)	226(64.9)	122(35.1)		138(39.7)	210(63.0)		
≥13	216(36.0)	165(76.4)	51(23.6)		101(46.8)	115(53.2)		
Husband's education (years)								
<9	54(9.0)	31(57.4)	23(42.6)	0.001	23(42.6)	31(57.4)	0.003	
9-12	362(60.3)	238(65.7)	124(43.4)		135(37.3)	227(62.7)		
≥13	184(30.7)	145(78.8)	39(21.2)		97(52.7)	87(47.3)		
Wife's occupation								
Housewife	498(83.0)	338(67.9)	160(32.1)	0.187	209(42.0)	289(58.9)	0.560	
Work outside	102(17.0)	76(74.5)	26(25.5)		46(54.1)	56(54.9)		
Husband's occupation								
Worker	40(6.7)	25(62.5)	15(37.5)	0.025	15(37.5)	25(62.5)	0.004	
Employed	70(11.7)	53(75.7)	17(24.3)		35(50.0)	35(50.0)		
Certain professions (lawyers, doctors, engineers)	52(8.7)	44(84.6)	8(15.4)		33(63.5)	19(36.5)		
Self-employment	438(73.0)	292(66.7)	146(33.3)		179(39.3)	266(60.7)		
Income (Toman*/m)								
<750,000	57(9.5)	43(75.4)	14(24.6)	0.343	18(31.6)	39(69.4)	0.294	
750,000-1,500,000	315(52.5)	208(66.0)	107(34.0)		133(42.2)	182(57.8)		
1,500,000-2500,000	159(26.5)	112(70.4)	47(29.6)		73(45.9)	86(54.1)		
>2,500,000	69(115)	51(73.9)	18(26.1)		31(44.9)	38(55.1)		
Residence status								
Urban	499(83.2)	343(68.7)	156(31.3)	0.757	211(42.3)	288(57.7)	0.812	
Rural	101(16.8)	71(70.3)	30(29.7)		44(43.6)	57(56.4)		
Bith order or last child								
First	281(46.8)	203(72.2)	78(27.8)	0.062	125(44.5)	156(55.5)	0.594	
second	209(34.8)	145(69.4)	64(30.6)		87(41.6)	122(58.4)		
Third+	110(18.3)	66(60.0)	44(40.0)		43(39.1)	67(60.9)		
Pregnancy intention								
wanted	516(86.0)	362(70.2)	154(29.8)	0.129	226(43.8)	290(26.2)	0.111	
Unwanted	84(14.0)	52(61.9)	32(38.1)		29(34.5)	55(65.5)		

*Toman; 10 Rials=1tomans=0.0003 USD

The husbands with special job ($p=0.025$), higher education ($p=0.001$) more likely to be accompanied their wives to antenatal clinic during the pregnancy than were men with the other job or little education. The men were more likely to be assisted at household

chore if they had special job ($P=0.004$). The husbands with lower education were less likely to be assisted at household chore than the higher education group ($p=0.003$). The results for men's attendance at antenatal clinic and household chores in the analysis of

Table 2. Association of various factors with Iranian men's attendance at antenatal clinic and household chores by multivariate logistic regression (n = 600)

Variables	Attendance at antenatal clinic			Household chores		
	OR	95% CI	P	OR	95% CI	P
<i>Wife's age</i>						
<25	0.90	0.39, 2.05	0.793	0.98	0.45, 2.15	0.966
25-34	1.15	0.59, 2.27	0.677	1.27	0.67, 2.43	0.466
≥35	1.00					
<i>Husband's age</i>						
<25	0.922	0.40, 2.13	0.850	0.64	0.28, 1.46	0.290
25-34	1.338	0.83, 2.15	0.229	0.92	0.59, 1.43	0.698
≥35	1.00			1.00		
<i>Wife's education (years)</i>						
<9	1.03	0.40	0.944	1.426	0.58, 3.50	0.438
9-12	0.80	0.49	0.388	1.148	0.72, 1.83	0.565
≥13	1.00			1.00		
<i>Husband's education (years)</i>						
<9	0.40	0.18, 0.90	0.026	0.57	0.27, 1.22	0.147
9-12	0.60	0.35, 1.01	0.057	0.48	0.30, 0.77	0.002
≥13	1.00			1.00		
<i>Wife's occupation</i>						
Housewife	1.158	0.654	0.616	1.28	0.77, 2.13	0.340
Employed	1.00			1.00		
<i>Husband's occupation</i>						
Worker	0.866	0.44, 1.71	0.678	0.956	0.49, 1.87	0.896
Employee	1.606	0.89, 2.89	0.114	1.524	0.91, 2.54	0.106
Certain professions (lawyers, doctors, engineers)	2.758	1.257, 6.05	0.011	2.601	1.43, 4.74	0.002
Self-employment	1.00			1.00		
<i>Income (Toman*/m)</i>						
<750,000	1.990	0.77, 5.13	0.155	0.869	0.37, 2.05	0.749
750,000-1,500,000	0.981	0.50, 1.94	0.955	1.385	0.74, 2.60	0.310
1,500,000-2,500,000	0.986	0.49, 1.99	0.969	1.413	0.75, 2.68	0.289
>2,500,000	1.00			1.00		
<i>Residence Status</i>						
Urban	0.701	0.43, 1.15	0.161	0.757	0.48, 1.20	0.239
Rural	1.00			1.00		
<i>Birth order or last child</i>						
First	1.963	1.16, 3.31	0.012	1.220	0.70, 2.12	0.481
second	1.538	0.94, 2.52	0.088	1.093	0.66, 1.80	0.726
Third+	1.00			1.00		
<i>Pregnancy intention</i>						
wanted	1.180	0.71, 1.97	0.526	1.36	0.82, 2.28	0.235
Unwanted	1.00			1.00		

-Potential confounders used in each characteristic were other characteristics

*Toman; 10 Rials=1 toman=0.0003 USD

age of women and men, income, residence status, education of women, job of women, birth order, or pregnancy intention were non significant (Table 1).

In order to better examine the characteristics of those men who attendance at antenatal clinic and

household chores, the estimated adjusted odds ratio (with 95% CI) for associations between various factors and Iranian men's attendance at antenatal clinic and household chores were calculated. As shown in table 2, the adjusted OR for Iranian men's attendance at

antenatal clinic in men with special job was 2.76 (95% CI, 1.26 - 6.05; $P = 0.011$), and for men with low educational level, it was 0.404 (95% CI, 0.18 - 0.90; $P = 0.026$). In addition, the OR of Iranian men's at household chores for men with special job was 2.60 (95% CI, 1.43 - 4.74; $P = 0.002$), and for men with educational level between 7 to 12 years, it was 0.404 (95% CI, 0.18 - 0.90; $P = 0.002$). No significant associations were found between Iranian men's at household chores with the age of men and women, income, residence status, education of women, job of women, or pregnancy intention (Table 2).

Discussion

The data from this study provide insights on how males get involved in antenatal care in north of Iran. First of all, the results of this study showed that 69.0% of Iranian men attended the antenatal clinics during the pregnancy. There are, however, few other studies, bearing similar results. Mortazavi et al (2011), for instance, reported 25% of men's attendance at the antenatal clinic in Shahrood, Iran (11). This could be due to the differences in socio-cultural factors, which allow the likelihood of the participation of men during the pregnancy of their wives (12). However, when compared with developed countries, men's attendance at the antenatal clinics was deemed to be low in Babol, Iran (3, 4). Interestingly, men with special jobs (lawyers, doctors, engineers) and higher education were more likely to attend antenatal clinics. Similarly, the findings of some studies in other countries showed that men's attendance at antenatal clinic could be correlated with their jobs and educational levels (13). Many factors such as specific education on various kinds of participation in the family affairs, men's attendance in childbirth classes, and social and behavioral changes may affect the genesis of men's attendance in antenatal clinic (8, 14-16). Secondly, our results also showed that less than a fifth of husbands helped with household chores during the pregnancy. Also, nearly, less than half of the husbands helped their wives with household chores during pregnancy. More than half of husbands encouraged their wives to attend antenatal clinic, counseled their wives to have adequate nutrition, and paid for the antenatal service bills.

In addition, this study proved that men with special jobs and higher educational levels were more likely to help their wives with household chores than were their

respective counterparts. In a similar study carried out in Nigeria, it was demonstrated that men who had higher educational levels and professional jobs were more likely to participate in household activities (13). In Iran, gender norms have been attributed to lack of male involvement in household chore (17). In other words, men are not inclined to do household chores at home in Iran on account of the fact that male involvement in household chores in Iran is perceived as men's weakness.

There are some limitations for this study. There is a possibility of reporting bias or exaggeration regarding men's attendance in various family affairs. This could stem from some women's fear or their discomfort in sharing all information related to their real life with others.

Conclusion

Despite all the limitations, the findings of this study could be used as a basis for increasing male involvement in health issues, especially the reproductive health. The Iranian Ministry of Health should strive to provide adequate guidelines for male involvement in pregnancy in the area in order to reduce such gender inequalities as "Entry forbidden to men" in all antenatal clinics. It is vital to hold child birth classes for men in order to raise their awareness of the benefits of their presence during the pregnancy of their wives. Emphasis should also be put on practical education to increase the involvement of men in maternal health issues, especially during pregnancy, and ways of improving the roles of gender in the community.

Acknowledgements

The authors acknowledge the assistance of the Islamic Azad University, Ayatollah Amoli Branch and Babol University of Medical Sciences for their support, and the participants for their kind attendance in this study.

Conflict of Interest

The authors declare that they have no competing interests.

References

1. United Nations. International conference on population and development programme of action. Twentieth Anniversary Edition ed: UNFPA; 2014.

2. World Health Organization, Department of Reproductive Health and Research. Programming for male involvement in reproductive health. Report of the meeting of WHO Regional Advisers in Reproductive Health WHO/PAHO, Washington, DC, USA, 5–7 September 2001. World Health Organization DoRHaR, editor 2002.
3. Porrett L, Barkla S, Knights J, de Costa C, Harmen S. An exploration of the perceptions of male partners involved in the birthing experience at a regional Australian hospital. *Journal of midwifery & women's health*. 2013 Jan-Feb;58(1):92-97.
4. Rowe RE, Magee H, Quigley MA, Heron P, Askham J, Brocklehurst P. Social and ethnic differences in attendance for antenatal care in England. *Public health*. 2008 Dec;122(12):1363-1372.
5. Sapkota S, Kobayashi T, Takase M. Husbands' experiences of supporting their wives during childbirth in Nepal. *Midwifery*. 2012 Feb;28(1):45-51.
6. Kaye DK, Kakaire O, Nakimuli A, Osinde MO, Mbalinda SN, Kakande N. Male involvement during pregnancy and childbirth: men's perceptions, practices and experiences during the care for women who developed childbirth complications in Mulago Hospital, Uganda. *BMC pregnancy and childbirth*. 2014;14:54.
7. Kost K, Landry DJ, Darroch JE. Predicting maternal behaviors during pregnancy: does intention status matter? *Family planning perspectives*. 1998 Mar-Apr;30(2):79-88.
8. Kwambai TK, Dellicour S, Desai M, Ameh CA, Person B, Achieng F, et al. Perspectives of men on antenatal and delivery care service utilisation in rural western Kenya: a qualitative study. *BMC pregnancy and childbirth*. 2013;13:134.
9. Simbar M, Nahidi F, Ramezani Tehrani F, Ramezankhani A. Fathers' Educational Needs about Perinatal Care: A Qualitative Approach *Hakim Research Journal* 2009;12(2):19-31 (Persian).
10. Webster J, Linnane JW, Dibley LM, Hinson JK, Starrenburg SE, Roberts JA. Measuring social support in pregnancy: can it be simple and meaningful? *Birth*. 2000 Jun;27(2):97-101.
11. Mortazavi F, Keramat A. The study of male involvement in prenatal care in Shahroud and Sabzevar, Iran. *Qom University of Medical Sciences Journal*. 2012;6(1):66-74
12. Andrew EV, Pell C, Angwin A, Auwun A, Daniels J, Mueller I, et al. Factors affecting attendance at and timing of formal antenatal care: results from a qualitative study in Madang, Papua New Guinea. *PloS one*. 2014;9(5):e93025.
13. Olayemi O, Bello FA, Aimakhu CO, Obajimi GO, Adekunle AO. Male participation in pregnancy and delivery in Nigeria: a survey of antenatal attendees. *Journal of biosocial science*. 2009 Jul;41(4):493-503.
14. Carter M. Husbands and maternal health matters in rural Guatemala: wives' reports on their spouses' involvement in pregnancy and birth. *Social science & medicine*. 2002 Aug;55(3):437-450.
15. Carter MW, Speizer I. Salvadoran fathers' attendance at prenatal care, delivery, and postpartum care. *Revista panamericana de salud publica = Pan American journal of public health*. 2005 Sep;18(3):149-156.
16. Duarte SJ, de Andrade SM, Mamede MV. Maternal decision on obtaining prenatal care: a study in Brazil. *Midwifery*. 2011 Apr;27(2):160-164.
17. Mortazavi F, Delara M, Akaberi A. Male involvement in prenatal care: impacts on pregnancy and birth outcomes. *The Journal of Urmia Nursing and Midwifery Faculty*. 2014;12(1):63-71 (Persian).