

DOI: <http://dx.doi.org/10.18203/2320-1770.ijrcog20194346>

Original Research Article

## How involved are husbands in antenatal care? the perspective of women availing antenatal services at a maternity hospital in rural South Karnataka, India

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**Received:** 15 July 2019

**Revised:** 10 August 2019

**Accepted:** 03 September 2019

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### ABSTRACT

**Background:** Male involvement in maternal health is associated with significant positive health outcomes in the mother. We aimed to assess the antenatal women's perception of their husbands' involvement in antenatal care in a maternity hospital in rural Karnataka, India.

**Methods:** 200 pregnant women in a maternity hospital in Karnataka were interviewed using a semi-structured pilot tested questionnaire on their perception about their husbands' participation in antenatal care.

**Results:** The mean score of women's perception of husband's awareness of antenatal care was  $10.1 \pm 2.2$  out of a maximum of 12, while that of husband's attitude to antenatal care was  $7.7 \pm 1.4$  out of a maximum of 9 and of husband's participation was  $21.7 \pm 5.4$  out of a maximum of 30. The score of perception of husband's awareness was significantly higher among multigravidae and among women who had a planned pregnancy. The score of perception of husband's attitude was significantly higher among women from nuclear families, multigravidae, those with a living child and those with no complications in the current pregnancy. The score of perception of husband's participation was significantly higher among women with no complications in the current pregnancy.

**Conclusions:** Husbands play a vital role in the antenatal care of their wives. This should be harnessed by health care workers by providing health education to them, encouraging husbands to accompany their wives to antenatal checkups and labour and promptly communicating clinical findings to them.

**Keywords:** Antenatal care, Awareness, Health education, Male partner, Patriarchy, Pregnancy

### INTRODUCTION

India accounts for at least a quarter of maternal deaths worldwide and is striving to achieve the goal of reducing the national maternal mortality rate to less than 100 per 100,000 live births. Maternal health has traditionally been viewed as women's domain with inadequate participation from their male partners. In patriarchal societies like

India, men are the decision makers and they hold the social and economic power in families, more so in rural areas. They often decide the family size, health care access and financial allocation for antenatal care. Helping the wife with household chores and taking care of children are not culturally acceptable in Indian societies. However, male involvement in maternal health is associated with significant positive health outcomes such

as reduce post-partum depression, improved utilization of health care services and improved rates of skilled birth attendance.<sup>1</sup> Pregnant women who receive health education with their husbands reap benefits such as complete postnatal visits and better birth preparedness.<sup>2</sup> The country of Uganda has even launched the National male involvement in maternal health strategy to enhance male participation in maternal health.<sup>3</sup> A husband can involve himself in his partner's pregnancy by accompanying her for antenatal visits to the health facility, improving his knowledge on antenatal and child care, providing financial support, getting himself HIV tested, being with wife during delivery and discussing with her about antenatal care and family planning.<sup>4</sup> Shift of cultural norms towards male involvement in maternal health may involve a long duration of time. This is due to the gender inequality in decision making and responsibility in pregnancy.<sup>5</sup> Nonetheless, male involvement in maternal care could have an impact on the first two delays of maternal and child care namely delay in decision to seek care and delay in reaching care.<sup>6</sup> Age of the father, education, income and employment are certain known factors associated with male involvement in maternal and child health.<sup>7</sup> Traditional gender roles can be challenged to encourage more men to participate in antenatal care.<sup>8</sup>

Since it has been documented that male involvement in maternal and child care can improve the health status of the mother and child, it is vital to understand the antenatal mother's perspective of her husband's involvement in her antenatal care. This will widen our understanding of the family dynamics in maternal health and aid us in determining the intensity of involvement of husbands in maternal health.

With the paucity of evidence on male involvement in maternal health in India, this study aims to study women's perspective of their husband's involvement in antenatal care with the view of improving support systems for pregnant women thereby improving pregnancy outcomes. The evidence generated from this study will add to existing knowledge on the involvement of men in antenatal care of rural women and the factors associated with it. This knowledge could then be used to focus on future health educations and messages related to maternal health to both men and women.

## **METHODS**

The study was conducted in a missionary-run rural maternity hospital located in a village in Ramnagara district, South Karnataka, with approximately 160-180 deliveries every month including assisted deliveries and caesarean sections

The study was conducted among antenatal women attending outpatient department of the study hospital.

### ***Inclusion criteria***

- Antenatal women aged 18 years and above, in their third trimester that availed antenatal services at this hospital, were invited to participate in the study.

### ***Exclusion criteria***

- Antenatal women who were in labour or were seriously ill were excluded.

Based on a previous study in Nepal, with a relative precision of 20%, and 80% power, the sample size was calculated and rounded off to 200.<sup>7</sup> Consecutive sampling method was employed. This study was conducted from October to November in 2017.

Women who participated in the study gave written informed consent, following which a face-validated, pre-tested semi-structured interview schedule was administered which contained socio-demographic details of the patient, husband and family and obstetric details. To capture the subject's perception of her husband's involvement in her antenatal care, the questionnaire had 12 questions on women's perceptions of their husbands' awareness on essential obstetric care, danger signs in antenatal period and birth preparedness, 9 questions on women's perception of their husband's attitude to pregnancy which included whether husbands were willing to help with household chores during the pregnancy, willing to donate blood for their wife and whether they felt that pregnant women needed special care, 20 questions on women's perception of their husband's participation in pregnancy which included jointly deciding on place for antenatal care and delivery, accompanying for antenatal visits and ultrasounds, arranging for money, emergency transport and blood donor in advance for the delivery.

Positive response to each question was scored as one, giving a maximum possible score of 12 for husband's awareness, 9 for husband's attitude and 30 for husband's participation..

### ***Statistical analysis***

The data thus collected was entered in Microsoft Excel and data was analysed using SPSS v16. Socio-demographic and obstetric data was described by proportions, mean and standard deviation. The scores of the women's perception of husband's awareness, attitude and participation in antenatal care were associated with various socio-demographic and obstetric variables using independent t-test.

Correlation between these scores and certain socio-demographic variables was done using Spearman's correlation. A p-value of <0.05 was considered to be statistically significant.

**RESULTS**

A total of 200 antenatal women were enrolled in the study. The mean age of the study subjects was 22.8±2.6 years, while that of the husband was 29.7±3.5 years. The subjects had 11.5±2.4 number of years of formal education. 191(95%) were Hindu by religion, 193(96.5%) were homemakers, 148(74%) belonged to nuclear families. 99(49.5%) of husbands were daily wage earners and 62(31%) were farmers. Median monthly per capita income was Rs. 2370(1410, 3880) and median number of family members was 4.<sup>3,6</sup>

The mean age at marriage was 20.0±2.0 years for the study subjects. 97(48%) were primigravidae and 122(61%) said the pregnancy was planned. The mean current gestation age of the subjects was 36±3.6 weeks and the median (IQR) gestational age at registration was 8 weeks.<sup>6,12</sup> Median number of antenatal visits were 8.<sup>7,10</sup> The median duration of time spent by the study subjects in their mothers' house during pregnancy was 30(30, 60) days. 34(17%) of the women had a complication in the present pregnancy, while 18(9%) of the multigravidae had a complication in a past pregnancy. 17(8.5%) reported regular alcohol consumption by the husband (Table 1).

**Table 1: Association between sociodemographic variables and women's perception of husband's awareness, attitude and participation.**

Variable	Category	N (%)	Awareness score Mean±SD	p value	Attitude score Mean±SD	p value	Participation score Mean±SD	p value
Type of family	Nuclear	148	10.3 (2.2)	0.21 <sup>a</sup>	7.9 (1.1)	<0.001 <sup>a</sup>	22.8 (4.6)	0.33 <sup>a</sup>
	Joint	52	9.8 (2.4)		7.1 (1.6)		22.1 (5.9)	
Gravida	Primi	97	9.7 (2.4)	0.006 <sup>a</sup>	7.2 (1.2)	<0.001 <sup>a</sup>	22.7 (5.1)	0.93 <sup>a</sup>
	Multi	103	10.6 (1.9)		8.2 (1.2)		22.6 (4.9)	
Living children	Yes	92	10.5 (1.9)	0.06 <sup>a</sup>	8.3 (1.2)	<0.001 <sup>a</sup>	22.4 (4.9)	0.60 <sup>a</sup>
	No	108	9.9 (2.4)		7.2 (1.2)		22.8 (5.1)	
Planned pregnancy	Yes	122	10.5 (1.8)	0.001 <sup>a</sup>	7.6 (1.3)	0.32 <sup>a</sup>	22.2 (5.4)	0.11 <sup>a</sup>
	No	78	9.5 (2.6)		7.8 (1.3)		23.4 (4.3)	
Complications in current pregnancy	Yes	34	9.5 (3.0)	0.06 <sup>a</sup>	7.2 (1.9)	0.03 <sup>a</sup>	20.9 (5.8)	0.03 <sup>a</sup>
	No	166	10.3 (2.0)		7.8 (1.2)		23.0 (4.7)	

a: Independent t-test, b: One-way Anova

**Table 2: Correlation between sociodemographic variables and women's perception of husband's awareness, attitude and participation.**

Variable (n=200)	Awareness score		Attitude scores		Participation score	
	Correlation coefficient	p value	Correlation coefficient	p value	Correlation coefficient	p value
Age	0.04	0.56	0.19	0.01	0.02	0.80
Age at marriage	0.04	0.61	-0.01	0.94	0.10	0.15
Age of husband	0.00	0.95	0.12	0.13	-0.04	0.56
Years of education	0.19	0.008	0.01	0.93	0.15	0.03
Monthly per capita Income	0.12	0.12	-0.12	0.10	0.01	0.94
No. of family members	-0.01	0.88	0.09	0.21	-0.04	0.54
Weeks at first registration	-0.05	0.50	0.14	0.05	-0.21	0.003
No. of antenatal visits	0.05	0.49	-0.06	0.42	0.48	<0.001
Duration of time spent in mothers house (in days) n=121	-0.04	0.62	-0.02	0.83	0.02	0.82
Awareness	-	-	0.48	<0.001	0.29	0.001
Attitude	-	-	-	-	0.26	<0.001

Spearman's rank correlation

The mean score of women's perception of husband's awareness of antenatal care was 10.1±2.2 out of a maximum of 12, while that of husband's attitude to antenatal care was 7.7±1.4 out of a maximum of 9 and of husband's

participation was 21.7±5.4 out of a maximum of 30. The score of perception of husband's awareness was significantly higher among multigravidae and among women who had a planned pregnancy. The score of

perception of husband's attitude was significantly higher among women from nuclear families, multigravidae, those with a living child and those with no complications in the current pregnancy. The score of perception of husband's participation was significantly higher among women with no complications in the current pregnancy (Table 1).

There was a significant correlation between husband's awareness of antenatal care and the number of years of education. There was a significant correlation between husband's attitude and increasing age of the subject as well as the score of perception of her husband's awareness. There was a significant correlation between husband's participation in antenatal care and early registration of pregnancy, increasing number of antenatal visits, score of perception of her husband's awareness and attitude. There was no significant difference in the mean scores of perceptions of husband's awareness, attitudes and participation in antenatal care with regards to religion, occupation of the subject, husband's occupation, history of complication in past pregnancies and history of alcohol consumption by the husband (Table 2).

## DISCUSSION

Men are important stakeholders in maternal and child health. However, in India pregnancy and child birth is generally viewed as women's affair and male involvement is usually minimal. In our study, we studied the pregnant women's perspectives about their husbands' involvement in antenatal care. The mean age at marriage of women in our study was 20. This is less, as compared to the mean age at marriage of Indian women which is 23.59. Of the pregnant women studied, 96.5% were home makers. In India 25.68% of women participate in workforce.<sup>10</sup> The low prevalence of workforce participation in our study could be due to the pregnancy status and age of the patients. Among our study subject, 61% reported the pregnancy to be planned. In comparison with the Indian rate of unintended pregnancies which is 70.1 per 1000 women, our study level is low.<sup>11</sup> This could be due to the fact that the study was conducted in a hospital and most women were in third trimester. During pregnancy, most women in our study stay in their mothers' house for a specified period of time. This is due to the traditional custom which is favorable for women's health since the women can take adequate rest at mothers' houses.<sup>12</sup> The median number of antenatal checkups a woman had in our study was 8, which in line with the recommended number of antenatal checkups for positive pregnancy experience which is 8.<sup>13</sup> In our study, 17% of the women had complications, this is similar to the prevalence of high-risk pregnancies in South India which is 18.3%.<sup>14</sup> The prevalence of alcohol use among the husbands in our study was 8.5%. In India, the prevalence of alcohol use is 30%.<sup>15</sup> The low prevalence of alcohol use in our study could be due to the proxy answers given by the wives on behalf of their husbands. There could also be the factor of social desirability bias among women while reporting their husbands' alcohol use.

While most women felt that the husbands' knowledge (10.7/12) and attitude (7.7/9) scores were higher than the participation in antenatal care score (21.7/30). In a study done by Mohammed et al, in Ethiopia, it was observed that male partners' active involvement in antenatal care increases the maternal healthcare utilization and male partners' awareness in antenatal care can make them lenient in providing necessary resources for maternal health care access.<sup>16</sup> As active decision makers in the household, male partners play a vital role in birth preparedness and complication readiness. Despite having better knowledge and attitude towards antenatal care of their wives, participation in antenatal care of the male partners in our study comparatively less. This could be due to the fact that obstetric health care facilities are not inviting for husbands. In most hospitals, men are not allowed into the obstetric OPDs and labor rooms. Doctors and health care workers interact mostly with the patient and her female relatives, and only for major decisions such as consent for Cesarean section, consent for tubectomy and complications in pregnancy, they communicate with the husbands.

In this study we observed that awareness among husbands increases as education increases. Education of the husbands in our study was associated with better awareness in antenatal care. Wai et al, observed similar findings where education of husband was a predictor of husbands' involvement in antenatal care of their wives.<sup>17</sup> In the first pregnancy, usually husbands' awareness regarding antenatal care is less.<sup>18</sup> In our study we observed that husbands of multigravida have better awareness as compared to primigravida. We observed a significant association between husbands' participation and early registration and number of antenatal visits. The National Health Mission of India recommends early registration of pregnancy in first trimester and minimum of 4 antenatal visits for pregnant women.<sup>19</sup> Husbands' participation in antenatal care as a predictor of this obstetric service utilization must be further explored and adequate health education of husbands on antenatal care must be provided to encourage participation in wives' pregnancies.

## CONCLUSION

In this study conducted in a rural private obstetric hospital among pregnant women, we have observed that, according to them their husbands have better knowledge and attitude towards antenatal care is better than participation in antenatal care. Better education of husband and wife being a multigravida is associated with increased knowledge of antenatal care among husbands. As age increases husbands' attitude towards antenatal care is better. Husbands' participation in antenatal care is associated with early registration of pregnancy and increased antenatal check-up visits.

Husbands play a vital role in the antenatal care of their wives. This should be harnessed by health care workers by providing health education to them, encouraging husbands

to accompany their wives to antenatal checkups and labour and promptly communicating examination and investigation findings of their wives to them. This study was conducted among pregnant women and not their husbands. Social desirability bias and assumptions about husbands' knowledge and attitude could have influenced their answers. The study being a cross sectional study could not assess the direction of the associations observed.

## ACKNOWLEDGMENTS

Authors would like to thank Dr. Sr. Gladys Menezes, Obstetrician, Snehalaya Hospital, Solur for the support of this study.

*Funding: No funding sources*

*Conflict of interest: None declared*

*Ethical approval: The study was approved by the Institutional Ethics Committee*

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**Cite this article as:** Gnanaselvam NA, Dore A, Beaty S, Jacqueline VY, Rose AT, Mary A, et al. How involved are husbands in antenatal care? the perspective of women availing antenatal services at a maternity hospital in rural South Karnataka, India. *Int J Reprod Contracept Obstet Gynecol* 2019;8:3878-83.