

## Research Article

# Husband Involvement in Antenatal Care among Pregnant Women in a Tertiary Care Setting

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### ABSTRACT

**Background & Objectives:** Antenatal care is special care given to women during pregnancy and is regarded as a cornerstone for improving perinatal outcomes. In Nepal, men are the backbone of the family, and their engagement in maternal health care is crucial for promoting maternal and fetal health. The objective of this study was to find out the husband's involvement in the care of antenatal women, which includes support and help in providing a nutritious diet, rest and sleep, help in household chores, attending antenatal clinic, and planning for birth preparedness.

**Materials and Methods:** A descriptive cross-sectional design was used. All the pregnant women in the third trimester visiting the ANC Clinic in Rapti Academy of Health Science, Dang, were the study population. The structured

interview schedule was used for the data collection. Data was entered in Statistical Package for Social Science (SPSS) and was analyzed using descriptive and inferential statistics.

**Results:** This study's finding shows that most pregnant women's husbands (76%) had high involvement in antenatal care. There was a statistically significant association between the level of the husband's participation in antenatal care and the age of the respondent (P value <0.05).

**Conclusions:** The majority of the respondent had high involvement of their husband in antenatal care, but involvement in birth preparedness and complication readiness was quite low; therefore, awareness program on birth preparedness and complication readiness is recommended.

**Keywords:** Antenatal care, husband's involvement, primi mothers, third trimester

### **INTRODUCTION**

Pregnancy is the period in which a fetus develops inside a woman's womb. It usually lasts about 40 weeks. During pregnancy, there is a progressive anatomical and physiological change in all body systems [1]. Antenatal Care (ANC) provides physical, emotional, social, and economic support to pregnant women and is a crucial determinant

of safe delivery. ANC ensures a substantial reduction of maternal and perinatal mortality [2]. Providing emotional and physical support, the husband and his family will be able to improve the health of the woman throughout pregnancy [3].

In recent years, men have been encouraged to accompany their wives for antenatal care and participate in labor and childbirth. Positive health outcomes are associated with fathers' involvement during pregnancy [4]. In England, where paternal involvement was higher, multiparous women were less likely to report psychological, physical, and post-traumatic stress symptoms [5]. In Ethiopia, husband involvement in maternal and neonatal child care has shown 2.34 times less chance of having postpartum depression [6]. Another study showed that 56% of women were accompanied by their husbands to the ANC clinic, and 59.0% were helped with domestic chores. Husbands helped in arranging transportation to the birthing center by 64.6% [7]. Achieving high coverage of antenatal care (ANC) or delivery by skilled birth personnel, as stated in the Millennium Development Goals, will remain a dream until male spouses are encouraged to get involved in reproductive health, including supporting their partner in using healthcare facilities before, during, and after pregnancy [8]. In the process of improving Maternal and child health, the role of males cannot be ignored [2].

Similarly, in Nepal, among married men, 39.3% of men participated in ANC [9]. Male involvement is vital to improving women's health [10], where vital decisions are taken by the husband; their involvement in reproductive health strongly impacts improving the health status of women. Thus,

a man has to be knowledgeable and responsible for the care of women during pregnancy. So, the objective of this study was to find out the husband's involvement in antenatal care among antenatal women.

## **MATERIALS AND METHODS**

A descriptive cross-sectional design was used to assess the husband's involvement in antenatal care among antenatal women. The Rapti Academy of Health Science (RAHS) was the study setting. The study population was all the primi-parous pregnant women of the third trimester attending the antenatal clinic of RAHS Institutional Clinic. All the primiparous pregnant women willing to take part in this study were included. The sample size was calculated by using standard Cochran's Formula ( $n=z^2pq/l^2$ ) where  $P=54.6\%$  [10]. The calculated sample size was 95, adding a 5% non-response rate, sample size was 100. Non-probability purposive sampling technique was used to select samples. Antenatal Card of pregnant women was assessed and explained the purpose of the study; those who met the inclusion criteria were selected, and an interview technique was used to collect the data in their feasible time when they were waiting for their checkup. The structured interview schedule was used. It consists of questions related to the socio-demographic characteristics of respondents and husbands, questions related to obstetric characteristics, and questions related to the involvement of husbands regarding antenatal care. Written informed consent was obtained from each respondent before data collection. Respondent's dignity was maintained by giving the right to discontinue at any time if they wish to discontinue. Confidentiality was maintained by not disclosing or using the

information, only for study purposes. Respondents were not harmed. It consisted of a total of 41 questions, only 30 of which were related to the involvement of the husband in antenatal care. 1 score was given for involvement and 0 for non-involvement in antenatal care. The level of involvement was categorized as a score of more than or equal to 50% is regarded as high involvement, and a score less than 50% is considered low involvement. Each interview took about 15-20 minutes. Data collection was done from 2079/10/29 to 2079/11/12. After data collection, the data were coded, stored, and entered in a datasheet and were analyzed using Statistical Package for Social Science (SPSS) Version 16. The obtained data were

analyzed using descriptive statistics, percentage, mean, standard deviation, and inferential statistics. Chi-square, Fisher's exact test was used to measure the association between the level of husband's involvement and selected variables.

## RESULTS

Table 1 reveals that more than half of the respondents (54%) were below or equal to the mean age. The age range is from 18 to 31 years, with the mean age 24.24 years, with SD  $\pm 3.036$ . Following that, nearly one-half of the respondents (48%) were Janajati, and almost all (90%) belonged to Hinduism. Similarly, the majority of the respondents (69.7%) have secondary and above level education. Sixty-

**Table 1: Demographic information of the respondents (n=100)**

| Variables                         | Number | Percent |
|-----------------------------------|--------|---------|
| <b>Age (in completed years)</b>   |        |         |
| ≤24 years                         | 54     | 54.0    |
| >24 years                         | 46     | 46.0    |
| Mean $\pm$ SD = 24.24 $\pm$ 3.036 |        |         |
| <b>Ethnicity</b>                  |        |         |
| Janajati                          | 48     | 48.0    |
| Brahmin, Chhetri                  | 37     | 37.0    |
| Dalit                             | 12     | 12.0    |
| Madhesi,                          | 2      | 2.0     |
| Muslim                            | 1      | 1.0     |
| <b>Religion</b>                   |        |         |
| Hinduism                          | 90     | 90      |
| Buddhism                          | 3      | 3.0     |
| Christianity                      | 5      | 5.0     |
| Islam                             | 2      | 2.0     |
| <b>Education</b>                  |        |         |
| Can read and write                | 99     | 99.0    |
| <b>Level of Education(n=99)</b>   |        |         |
| Basic                             | 30     | 30.3    |
| Secondary and above               | 69     | 69.7    |
| <b>Occupation</b>                 |        |         |
| House maker                       | 63     | 63.0    |
| Service                           | 35     | 35.0    |
| Student                           | 2      | 2.0     |

three percent of the respondents were housemaker.

Table 2 shows that more than half of the respondents' husbands (56%) were below or equal to the mean age. The age ranges from 19 to 35 years, with the mean age 26.73 years and  $SD \pm 3.53$ . Similarly, the Majority (75%) of the respondents' husbands had secondary and above level education, and almost all (98%) of the respondents' husbands were in

service.

Table 3 shows the obstetric characteristics of the respondents, in which less than half of the respondents (44%) were 9 months of pregnancy. Following that, most of the pregnancies were planned (77%). Almost all (97%) of the respondents had done regular antenatal checkups in pregnancy, and most of their husbands (83%) were the decision makers in their home.

**Table 2: Demographic information of the Respondents' Husband (n=100)**

| <b>Variables</b>                 | <b>Number</b> | <b>Percent</b> |
|----------------------------------|---------------|----------------|
| <b>Age</b>                       |               |                |
| ≤26 years                        | 56            | 56.0           |
| >26 years                        | 44            | 44.0           |
| Mean $\pm$ SD = 26.73 $\pm$ 3.53 |               |                |
| <b>Level of Education</b>        |               |                |
| Basic                            | 25            | 25.0           |
| Secondary and above              | 75            | 75.0           |
| <b>Occupation</b>                |               |                |
| Service                          | 98            | 98.0           |
| Student                          | 2             | 2.0            |

**Table 3: Pregnancy-related information of the Respondents (n=100)**

| <b>Variables</b>           | <b>Number</b> | <b>Percent</b> |
|----------------------------|---------------|----------------|
| <b>Month of Pregnancy</b>  |               |                |
| 7 months                   | 23            | 23.0           |
| 8 months                   | 33            | 33.0           |
| 9 months                   | 44            | 44.0           |
| <b>Type of pregnancy</b>   |               |                |
| Planned                    | 77            | 77.0           |
| Unplanned                  | 23            | 23.0           |
| <b>Regular ANC checkup</b> |               |                |
| Yes                        | 97            | 97.0           |
| <b>Decision maker</b>      |               |                |
| Husband                    | 83            | 83.0           |
| Mother-in-law              | 14            | 14.0           |
| Father-in-law              | 1             | 1.0            |
| Mother                     | 2             | 2.0            |

Table 4 reveals the husbands' involvement in ANC care of pregnant women; almost all (99%) provided money and brought nutritious foods, 90% helped with household chores, and among them, only 52% helped always with household chores, 64% helped in washing dishes, 81.1% prepared meals, 86% allowed them to take rest. Regarding accompanying during a hospital visit for an antenatal checkup, only 76% of the husbands visited the hospital with the respondents. Among the 76% husbands, only 34.2% always accompanied. Regarding birth preparedness, only 55% had prepared for delivery, and among them, 90% had arranged money, 83%

had planned for delivery with skilled birth attendants, 56.4% had arranged baby clothes, 58% had arranged clothes for the mother, 63% had a transportation plan, and only 16.4% had arranged blood donors.

Table 5 shows the level of the respondent's husband's involvement regarding antenatal care. Most of the antenatal women had high involvement (76%) of their husbands in the antenatal period.

Table 6 shows the association between the husband's involvement in antenatal care and the socio-demographic characteristics of

**Table 4: Respondents' Husband's Involvement in Providing Antenatal Care n=100**

| Variables                                     | Number | Percentage |
|---|--------|------------|
| Provided money                                | 99     | 99.0       |
| Encouraged to take a nutritious diet          | 78     | 78.0       |
| Bought a nutritious diet                      | 99     | 99.0       |
| Prepared food                                 | 73     | 73.0       |
| Remind to take iron and calcium               | 85     | 85.0       |
| Helped with household activities              | 90     | 90.0       |
| Helped in household activities, Always (n=90) | 47     | 52.2       |
| Preparing meals and snacks                    | 73     | 81.1       |
| Washing dishes                                | 58     | 64.4       |
| Buying goods                                  | 50     | 55.6       |
| Cleaning house                                | 43     | 47.8       |
| Carrying water                                | 41     | 45.6       |
| Washing clothes                               | 41     | 45.6       |
| Preparing meals and snacks                    | 73     | 81.1       |
| Allow to take rest in daytime (n=100)         | 86     | 86.0       |
| Helps to create a quiet environment           | 89     | 89.0       |
| Provide comfortable clothes                   | 68     | 68.0       |
| Provide company during ANC Visit              | 76     | 76.0       |
| Always (n=76)                                 | 26     | 34.2       |
| Accompany during the laboratory examination   | 63     | 63.0       |
| Preparation for birth preparedness by husband | 55     | 55.0       |
| Preparation done *(n=55)                      |        |            |
| Arranging money                               | 50     | 90.9       |
| Preparation of delivery through SBA           | 46     | 83.6       |
| Arranging means of transportation             | 35     | 63.6       |
| Baby clothes                                  | 31     | 56.4       |
| Mother clothes                                | 32     | 58.0       |
| Identified an appropriate blood donor         | 9      | 16.4       |
| Others**                                      | 13     | 23.6       |

\*Multiple Responses

\*\*Other bottle, thermos, baby soap, sanitizer

respondents. There was a significant association between the age of the respondents ( $p=0.018$ ) and the husband's involvement in antenatal care.

**Table 5: Level of husband involvement in providing antenatal care (n=100)**

| Level of Involvement | Score | Number |
|----------------------|-------|--------|
| Low Involvement      | <50%  | 24     |
| High Involvement     | >50%  | 76     |

Maximum score= 27, Minimum score= 7

association between the respondents' husbands' age, ethnicity, education, and occupation and level of husband involvement in antenatal care. Similarly, this study showed no association between occupation, type of family, and level of husband involvement in antenatal care, but a study conducted in Lalitpur showed an association between ethnicity, religion, occupation, type of family, and level of husband involvement in

**Table 6: Association between levels of Husband's Involvement in ANC Care with Socio-demographic Characteristics of Respondents (n=100)**

| Variables               |                 | Level of Involvement |      | Chi-square | P value |
|-------------------------|-----------------|----------------------|------|------------|---------|
|                         |                 | Low                  | High |            |         |
|                         |                 | N                    | %    | N          | %       |
| <b>Respondent's age</b> | $\leq 24$ years | 18                   | 33.3 | 36         | 66.7    |
|                         | $> 24$ years    | 6                    | 13.0 | 40         | 80.0    |
| <b>Occupation</b>       | Housemaker      | 17                   | 27.0 | 46         | 73.0    |
|                         | Others*         | 7                    | 18.9 | 30         | 81.1    |
| <b>Type of Family</b>   | Nuclear Family  | 11                   | 21.2 | 41         | 78.8    |
|                         | Joint Family    | 13                   | 27.1 | 35         | 72.9    |

\*Significant at  $p$  value<0.05, \*Other-Service, Business, Agriculture, Student

## DISCUSSION

In this study, more than three-fourths (76%) of the respondents' husbands have high involvement in antenatal care. Similar to this one done in Lalitpur, Nepal, showed that most of the husbands (87.7%) were highly involved during antenatal care. another study conducted in Kathmandu, Nepal, concluded that more than half of the husbands (54.6%) had high involvement in antenatal care [10]. A similar study done in Mumbai, India showed majority of the husbands (62%) had a low level of involvement and only one-third (38%) had a high level of involvement in antenatal care [11].

This study showed a significant association between respondents' age and the level of husband involvement in antenatal care. A study [10] also showed a significant

antenatal care [2]. In this study, there shown that more than three-fourths (78%) of husband encouraged their pregnant wife to eat a nutritious diet. Almost all (99%) of the respondents' husbands brought nutritious diets. Most of the respondents' husbands (85%) remind them to take iron and calcium during the journey of pregnancy. A similar study concluded majority (74.6%) of the respondents' husbands were encouraged to take a nutritious diet and buy nutritious food, 67.1%. The majority of the respondents' husbands (60%) remind them to take iron and calcium during the antenatal period [10]. Another study conducted in Varanasi, India, showed that more than a fourth of the husbands (77.6%) were encouraged to take green vegetables and fruits to their wives during the antenatal period [8].

This study revealed that almost all (90%) of the respondents' husbands supported and

helped with the household chores. More than half of the respondents' husbands (52.2%) always helped with the household activities. Most of the respondents' husbands (81.1%) helped in preparing meals and snacks. Likewise, the majority of the respondents' husbands helped in washing dishes (64.4%), more than half of the husbands helped in buying goods (55.6%), less than half helped in cleaning the house (47.8%), carrying water (45.6%), and washing clothes (45.6%). A similar study showed most of the husbands (76.4%) helped with the domestic chores, the majority (65.4%) helped in preparing meals, less than half (42%) helped in washing dishes, the majority (71%) helped to do shopping, more than half (57.4%) helped in washing clothes and majority (71%) helped in cleaning the home [10]. Another study showed that almost all (92%) of the husbands of pregnant women supported in the household activities during the antenatal period, most of the husbands (95.6%) helped in fetching water, the majority (70.6%) helped in cooking food, more than half helped in washing clothes (58.6%) and washing dishes (56.5%) [12]. Likewise, in this study, almost all (90%) of the respondents' husbands helped with the household chores, whereas another study conducted in Lalitpur, Nepal, showed that almost all (93.3%) of husbands helped their wives in the household chores [2]. Another study done in Dang showed more than three-fourths of the husbands (78.4%) helped with household chores [13]. A similar study revealed that only a few (15.3%) helped their wife with household chores [8], and only 23.8% of husbands supported household chores during the antenatal period in Kenya [14].

This study found that more than three-fourths (76%) accompanied their wife for ANC visits. Another study showed that most

of the husbands (75.4%) accompanied their wives for ANC visits [2]. Additionally, a similar study conducted in Dang, Nepal [13] showed that more than four-fifth (86%) accompanied their wife for ANC visits whereas a study conducted in Varanasi, India showed less than half of the husbands (43.1%) accompanied their wife for ANC Visit [8] following that 54.1% accompanied their wife to ANC Clinic for service in Bumula, Kenya [14] and more than half(50.8%) accompanied their wife in ANC Visit in the Southern, Ethiopia [15]. Respectively, this study showed more than one-third (33.2%) of the respondents' husbands always accompanied their wives for ANC visits, but a study conducted showed more than four-fifths (77%) of husbands always accompanied for ANC visits [12]. This study shows almost all (99%) of the respondents' husbands provided financial support to their wives during the antenatal period, which is similar to the study conducted in India that showed all husbands (100%) provided some form of financial support to their wives during the journey of pregnancy [11].

This study showed that more than half of the respondents' husbands (55%) planned for birth preparedness and complication readiness, whereas the majority (68%) had prepared for the delivery [13]. Similarly, the majority (63.6%) of the respondents' husbands had done planning for birth preparedness [10]. In contrast study conducted in Kenya revealed that only one-fifth (20.3%) had planned for birth preparedness and complication readiness [14]. Regarding other aspects of birth preparedness and complication readiness, almost all of the respondent's husbands (90%) had arranged money for delivery, more than three-fifths (63.6%) had arranged means of transportation, more than four-fifth

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(83.6%) were prepared for delivery in health institution through skill birth attendant and only a few ((16.4%) had identified the appropriate blood donor. A similar study done showed that almost all (92%) had saved money for delivery, more than three-fifths (61%) had arranged transportation, most of them (89%) had arranged for the safe delivery site, and skilled birth attendant, and very few (18%) had arranged a blood donor [12]. Additionally, another study showed that most of the respondents' husbands (79.7%) had saved money for delivery, more than three-fourths (75.2% had planned for transportation, and only 18.5% had identified appropriate blood donors [10]. Husband support was assessed through a structured questionnaire among antenatal women, so actual husband involvement in antenatal care may not be reflected. The study was limited to the antenatal women of only one setting, so it limits generalizability.

## CONCLUSIONS

Most of the pregnant women had a high involvement of their husbands during their antenatal period. Most of the husbands encouraged them to eat a nutritious diet, and almost all of the husbands helped with the household chores and accompanied their wives to ANC checkups. But very few husbands had done birth preparedness; among them, only a few had identified the appropriate blood donor. An awareness program focusing on husband involvement in birth preparedness and complication readiness is strongly recommended.

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