

# Frequency and factors influencing men's involvement in maternal care in tertiary care hospitals of Peshawar Pakistan

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## ABSTRACT

**Background:** Men's involvement in maternal care positively affects maternal and infant health outcomes. This participation may include attending antenatal and postnatal visits, decision-making in pregnancy and childbirth, and providing emotional and financial support. This study aimed to determine the frequency of men's involvement in maternal care and the factors influencing their engagement.

**Methods:** A cross-sectional study was conducted from 13<sup>th</sup> March to 25<sup>th</sup> May 2023 at Hayat Abad Medical Complex and Northwest General Hospital, Peshawar. Data were collected through structured interviews with 246 women using a questionnaire. Responses were analyzed using SPSS version 21, ensuring accuracy and reliability.

**Results:** The respondents had a mean number of children of 3.44. Among husbands, 93.9% were over 25 years old, and nearly half had at least an undergraduate education. A significant proportion of husbands participated in maternal care, with 76.7% attending antenatal visits, 53.5% present during labor, and 54.3% assisting with postnatal care. Factors identified as barriers included cultural norms (43.7%), socioeconomic issues (33.1%), and lack of supportive environments at hospitals (26.9%), and distance to healthcare facilities (39.2%). Increasing husband's age correlated positively with postnatal support (Pearson coefficient: 0.266,  $p < 0.005$ ) and was statistically significant for antenatal visits ( $p < 0.001$ ) and postnatal care ( $p = 0.048$ ), though not for attendance during labor ( $p = 0.198$ ).

**Conclusion:** Husbands demonstrated a high level of involvement in antenatal visits compared to labor and postnatal care. Most women reported satisfaction with their partner's participation. While cultural norms, economic factors, and distance posed challenges, they did not majorly hinder involvement. Increased paternal involvement in maternal care should be encouraged to improve maternal and child health outcomes.

**Keywords:** Antenatal Care, Health Outcomes, Maternal Care, Paternal Involvement

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## Introduction

Maternal care is a crucial practice for ensuring the complete health of both the mother and baby. Both women and men should be involved in this practice. Studies have shown that involving men in maternal care improves the cognitive and socio-

emotional development of children (1). Men's involvement can encourage the mothers more (2). However, involving men can be difficult.

Studies have revealed that various factors can hinder their involvement, such as spousal communication, residence, waiting times, (3) low levels of education and income, negative cultural practices, and unavailability of skilled attendants (4). Sadly, in some parts of the world, knowledge about maternal health is still considered solely the responsibility of women (5).

In Pakistan, the situation regarding maternal care is already alarming (6). Poor socioeconomic status, early marriages, male dominance, lack of knowledge and other social norms have been linked with high maternal mortality (7) further exacerbated by inefficient and ineffective obstetric services at the primary level in certain areas. A study conducted in swat found that there was reasonable knowledge of ANC among men (8), while some studies in other areas show that no permission from male members of the family had been affecting their antenatal care (9). Engaging both genders in the process has the benefit of improved knowledge about the complications (10). In Pakistan both sides are responsible for why men lose interest in maternal care (11). A study done in Thatta, Sind found that men have a trust deficit and some who do accompany their women to public health facilities are not given enough time and attention by health officers (12). This is further complicating the matter as less-knowledgeable husbands often expose their pregnant wives to dangers like second-hand smoke and psychological, sexual and physical violence (13). A study done locally in Peshawar even found that male dominance was coming in the way of pre and post-natal care in the Palosi area (14).

This study highlights the importance of understanding husbands' involvement in maternal care, given its critical role in improving maternal and neonatal health outcomes. Despite significant progress in maternal health services, cultural and societal barriers often limit male participation in maternal care in regions like Peshawar. Exploring the extent and factors influencing husbands' involvement can help identify gaps and barriers, inform targeted interventions, and ultimately contribute to reducing maternal and neonatal morbidity and mortality in the community.

## Methods

A cross-sectional analytical study assessed husbands' involvement in maternal care during antenatal and post-natal stages and labor. The study was conducted from 13th March 2023 to 25th May 2023 at the obstetrics and gynecology departments of three tertiary care hospitals in Peshawar: Northwest General Hospital, Northwest Teaching Hospital, and Hayatabad Medical Complex. The study included 246 married women aged 18 to 49 years, who had experienced pregnancy and childbirth at any point in their lives, selected through non-probability convenience sampling. Women who were unwilling to participate or unable to provide reliable information due to health or cognitive limitations were excluded to minimize confounding factors. The sample size was calculated using the WHO formula for sample size estimation:  $n = Z^2 \times P(1-P) / d^2$ , where  $Z=1.96$  (for 95% confidence),  $P$ =prevalence of husband involvement in maternal care), and  $d=0.05$  (margin of error). The formula ensures adequate representation while accounting for variability in the target population. A reference for the WHO formula was derived

from the World Health Organization manual on sample size determination in health studies. Ethical approval was obtained from the Institutional Review Board and Ethical Committee of Alliance Healthcare Pvt Ltd (Sr. No. 028, Ref: IRB & EC/2023-SM/028), and official approval was granted from each institution followed by informed consent from all participants. Data was collected using a structured questionnaire that focused on the level of husbands' involvement in maternal care. Developed from existing literature and expert input, its face validity was ensured through feedback from obstetricians and community health experts. A pilot study with 20 participants confirmed clarity and reliability, with a Cronbach's alpha of 0.82. The data was analyzed using

SPSS version 24, where Chi-square tests were employed to analyze demographic variables and calculate frequencies. Additionally, Pearson correlation analysis was performed to examine the relationships between various factors influencing husbands' involvement in maternal care.

## Results

Data was collected from 246 females presenting to the obstetrics and gynecology departments of three major hospitals of Peshawar i.e. Northwest General Hospital, Northwest Teaching Hospital and Hayatabad Medical Complex.

### Demographics

The demographic information of the participants has been detailed in table 1.

**Table1. Demographics of the husbands of the participants**

Variables	Subgroups	Frequency (%)
Age	18-24 years	15 (6.1%)
	25-34 years	92 (37.6%)
	35-44 years	65 (26.5%)
	45 years and above	73 (29.8%)
Education Level	Primary level or below	39 (15.9%)
	Secondary level	50 (20.4%)
	Higher Secondary level	45 (18.4%)
	Bachelor's degree or above	111 (45.3%)
Employment Status	Employed (Full-time or Part-time)	97
	Self Employed	90
	Unemployed	43
	Other	15

### Frequency of men's involvement in maternal care

188 (76.7%) of the respondents had a positive response when were asked about their partners accompanying them to antenatal care visits during pregnancy while 57(23.3%) of them denied this. Similarly, 131(53.5%) of them affirmed that they were accompanied by their partners during labor and delivery and 114(46.5%) had a negative answer to this. 133(54.3%) of the respondents were assisted

by their husbands in post-partum care activities like diaper changing and bathing while 112(45.7%) of them did not have this privilege. 174(71%) of the respondents answered no when asked about any reluctance faced by them regarding maternal care by their husbands and 71(29%) of them said yes to the mentioned question.

The number of respondents very satisfied with their partner's involvement in maternal care was 88(35.9%), 60(24.5%) were just

satisfied, 42(17.1%) were neutral about the question while 32(13.1%) and 23(9.4%) were either dissatisfied or very dissatisfied respectively.

Societal and cultural norms, economic constraints, supportive healthcare systems and distance to healthcare facilities were explored to investigate any possible causes for men's low involvement in maternal care. The findings have been summarized in table 2.

### Factors Influencing men's involvement in maternal care

**Table 2. Factors Influencing Men's Involvement in Maternal Care**

Questions	Yes	No
Do cultural or societal norms influence your partner's involvement in maternal care?	107 (43.7%)	138 (56.3%)
Are there any economic constraints that hinder your partner's involvement in maternal care, such as financial expenses related to healthcare services or loss of workdays?	81 (33.1%)	164 (66.9%)
Do you feel that the healthcare system in tertiary care hospitals is supportive of men's involvement in maternal care, in terms of providing information and opportunities to participants?	179 (73.1%)	66 (26.9%)
Are you aware of any societal and cultural expectations regarding men's role in maternal care in your community?	189 (77.1%)	56 (22.9%)
Did the distance of the nearest healthcare facility ever affect your husband's desire to comply with your antenatal visits?	96 (39.2%)	149 (60.8%)
Do you think there is a need for policy changes or interventions to promote men's involvement in maternal care in tertiary care hospitals in Peshawar?	227 (92.7%)	17 (7.3%)

A chi-square test to assess the relation between education level and men's involvement in maternal care revealed that age was significant for antenatal visits

( $p=0.00$ ), insignificant for the company during labor ( $p=0.1980$ ) and again significant for post-natal help ( $p=0.048$ ). Table 3.

**Table 3: Men's involvement in natal care based on educational status**

Questions		Primary level or below	Secondary Level	Higher secondary level	Bachelors and above	p-value
Has your partner accompanied you to antenatal care visits during your pregnancy?	Yes	16	40	40	92	0.000
	No	23	10	05	19	
Did your partner accompany you during labor and delivery?	Yes	16	32	24	59	0.198
	No	23	18	21	52	
Did your partner accompany you in postpartum care activities for you and your newborn, such as with breast feeding, diaper changing or bathing?	Yes	17	23	22	71	0.048
	No	22	27	23	40	

The relation between employment and unemployment with antenatal care was significant ( $p=0.002$ ), post-natal care ( $p=0.347$ ) and presence during labor ( $p=0.476$ ) were insignificant. Table 4,

**Table 4: Paternal involvement natal care based on employment status**

Questions		Employed (Full time or half time)	Self employed	Unemployed	Other	P- value
Has your partner accompanied you to antenatal care visits during your pregnancy?	Yes	83	70	24	11	0.002
	No	14	20	19	04	
Did your partner accompany you during labor and delivery?	Yes	49	53	20	09	0.476
	No	48	37	23	06	
Did your partner accompany you in post-partum care activities for you and your newborn, such as with breast feeding, diaper changing or bathing?	Yes	55	51	18	09	0.347
	No	42	39	25	06	

We analyzed the data to find the correlation between the ages of the husband and antenatal care visits, company during labor and post-natal help. We only found an insignificant weak positive correlation for age-antenatal visits (Pearson coefficient: 0.025,  $p=0.7$ ) company during labor (Pearson coefficient: 0.120,  $p=0.06$ ). For post-natal help, there is a significant positive correlation. (Pearson coefficient: 0.266,  $p= 0.00$ ).

### Discussion

According to the results, 76.7% of the husbands accompanied their wives during antenatal visits. 53.5 % were present during labor and 54.3% were involved in the postnatal care. These numbers are similar to those found in a study in Bangladesh except for antenatal visits (15). They found that 84% of the husbands accompanied their wives to antenatal care. 50% were present during the

labor and one-third i.e. 66% were involved in postnatal care. Similar figures were reported in Central Tanzania where more than half of them (63.4%) and (64.1%) accompanied their partners to antenatal and postnatal care, respectively. The figures were very low for presence during deliver in Ethiopia (16, 17). Only 15 (1.6%) of the 966 men had accompanied their partners to the health care facility during the delivery (natal) period (18). Generally, similar figures (64% men involvement in antenatal care) were reported in southwest Ethiopia (19). Also in Bangladesh, husbands were not actively involved in woman antenatal care despite their partner wish and the figure is (85%) (20). However, in central Tanzania, Husband's involvement was reported to be 85% (21).

We found that 43.7% of the people agreed to cultural norms as barriers to men's

involvement. These figures are low as compared to a previous study in 2008 (22). Factors such as education level, household income, awareness of pregnancy-related topics, men's age at marriage, geographical region, and women's autonomy were identified as key predictors of whether male partners attended antenatal care in India (23). One obstacle that affects men's involvement is the anxiety and experience associated with social stigma (24).

The study in Ethiopia found that men's participation in maternity care was influenced

by their access to information about several key factors, including their role in maternity care, educational resources, and living conditions (25). This points towards the increasing awareness regarding this issue. Previously, in south Punjab, 3 out of 36 LHWs believed that this was an issue (26).

Financial stress was not an issue regarding male involvement for 66.9% of the participants in this present study. However, a study in India has found men belonging to the richest wealth quintile households to be more likely (Odds Ratio: 1.58) to attend antenatal care contacts than those belonging to the poorest wealth quintile (27). A study in Ghana found that it was an issue for some (53%) but not for others (43%) (28). Another study done in central Ethiopia show the low education is the basic issue in this regard (29). The family of low and moderate income was facing more this issue as compared to high-income family (30).

Distance from the nearest health facility also influences men's involvement in antenatal, labor and post-natal care for each 4 in 10 participants (39.2%). These are similar findings to the study based in Ghana that found that distances greater than 5km were barriers for 85% in prenatal care, 65% during

labor and delivery, and 75% in post-natal visits (31). It was opposed to the findings in a Tanzania-based study which reported that men who lived away had a higher level of involvement in antenatal care (64%), compared to their counterpart (52.6%) (21).

Most of the participants (73.1%) in our study thought that the tertiary care hospitals were supportive of men's involvement and did not discourage it.

## Conclusion

Husbands' involvement in maternal care during antenatal, labor, and postnatal stages was found to be significant but influenced by factors such as age, education, cultural norms, socioeconomic challenges, and access to healthcare facilities. Efforts to promote awareness, address cultural barriers, and improve hospital support systems are crucial to enhancing male participation in maternal care. Targeted interventions and community engagement programs are recommended to improve maternal and neonatal health outcomes.

**Study limitations:** This study is limited by our inability to interview patients randomly. This study also lacks men's perspective and was only based on female responses.

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