

Original Research Article

Assessment of husbands' involvement in birth preparedness and complication readiness: a hospital-based study

Srishti Singh^{1*}, S. K. Jha¹, Anuj Jangra², Tanisha³, Taniya³, Shruti³, Surbhi Mohan³

¹Department of Community Medicine, Bhagat Phool Singh Government Medical College for Women, Khanpur Kalan, Sonapat, Haryana, India

²Department of Community Medicine, Pt. B. D. Sharma PGIMS, Rohtak, Haryana, India

³MBBS Student, Bhagat Phool Singh Government Medical College for Women, Khanpur Kalan, Sonapat, Haryana, India

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*Correspondence:

Dr. Srishti Singh,

E-mail: srishti16june@gmail.com

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ABSTRACT

Background: The journey to parenthood starts well before conception and demands righteous involvement of both partners to achieve favourable pregnancy outcomes. BPACR may be influenced by male-partner engagement because husbands are the family's most powerful decision-makers and their involvement may reduce maternal death by avoiding delays through a well-planned birth and complication readiness. The present study was undertaken to assess the knowledge and role of husbands in birth preparedness and the reasons for lack of participation.

Methods: This hospital based cross-sectional study was conducted among 141 husbands (aged >21 years) of recently delivered postpartum women who were admitted and delivered in the hospital in 2023. A semi-structured interview schedule was used for data collection.

Results: It was found that around half of participants had knowledge of danger signs while 85.1% and 87.2% identified skilled SBA and transportation for delivery respectively. 70.2% wives were satisfied with their husband's support. Knowledge of danger signs, insisting ANC, arranging food/clothes, allowing wife to rest and providing emotional support had significant association with wives' satisfaction. The commonest reasons for lack of participation were that men were not allowed to enter labour room (31.9%) and busy arranging food and money (25.5%).

Conclusions: It was found that husbands showed high readiness in logistics and emotional support and active participation in chores. Majority of wives were satisfied with their husband's support which emphasizes that male involvement is not just a clinical necessity but a psychological one. Hospital and labour room policies to be more inclusive of male partners.

Keywords: BPACR, Complications, Emotional support, Labour room, Satisfaction

INTRODUCTION

The journey to parenthood starts well before conception and demands righteous involvement of both partners to achieve favourable pregnancy outcomes. A pregnant female seeks to avail enough support and involvement from her partner in the pregnancy journey which may culminate in adopting various, conflicting roles and responsibilities. This may include maintaining the

employment responsibilities; managing the household effectively as well as maintaining his primary focus on supporting his partner and child at the expense of his own needs.

Birth preparedness and complication readiness (BPACR) is a globally accepted strategy that encourages pregnant women, their families, and communities to effectively plan for births and deal with emergencies, if they occur.

BPACR may be influenced by male-partner engagement because husbands are the family's most powerful decision-makers. The responsibility of the husband or male partner in birth preparation and complication readiness is to recognize danger signs, come up with a plan for a birth attendant, make a plan for the delivery location, save money for transportation, and find a potential blood donor. According to National Family and Health Survey (NFHS-5) 2019-21, only 58.1% of mothers in our country had availed four or more antenatal care consultations.¹ In India, despite the best of interventions still 97 women die due to pregnancy related causes for every 1000 live births.² Male involvement in maternal health care reduces maternal death by avoiding delays through a well-planned birth and complication readiness.³

It is quite reliable to state that women in developing countries are either under collective decision making with their partners or completely depends on male partner's decision on issues of reproductive lives, whereas in contrast, attendance of husbands at antenatal clinic is rare in many communities and it is difficult to find men accompanying with their partners during ANC and delivery.^{4,5} Male involvement enables antenatal women to effectively utilize obstetric services and play a crucial role in minimising delay in seeking care and delay in reaching the health facility.⁶

Men's roles in safeguarding maternal health have gained increased interest in recent years while in contrast many studies have indicated that male partner involvement in maternal and child health is still low in many countries.⁷ Although child bearing and rearing is traditionally considered as a women's role, studies have shown increasing desire of women for their husbands' involvement, including during labour.^{8,9} Lewis et al in their qualitative study from Nepal reported that women felt 'closeness' to their husbands and were more able to share their feelings around pregnancy and childbirth. There is a need to move away from seeing men as "oppressors" and instead recognise them as partners in this realm. Men's involvement in earning a livelihood and traditional norms like not touching a postpartum woman for at least seven days after childbirth came out as major limitations in men's involvement in maternal care.^{10,11}

Given the noteworthy role that the male partners play in child bearing and rearing it is important to focus on the current state of knowledge and attitude of the male counterparts and their role in maternal care. The present study was undertaken to assess the knowledge and role of husbands in birth preparedness and the reasons for lack of participation.

METHODS

The present study was undertaken by undergraduate medical students as a part of their teaching curriculum and focused on creating awareness, generating interest and promoting research among young medical

professionals. Our study was non-interventional and involved minimal/no risk to the study participant. The study was undertaken in a rural medical college located in an industrialized district which caters to migratory population and patients from neighbouring states as well. This hospital based cross-sectional study was conducted among husbands of recently delivered postpartum women who were admitted and delivered in our hospital. All men aged 21 years and above and married to a postpartum woman who delivered between March to June 2023 and accompanying their wives to our hospital for delivery were included while those who were seriously ill and not willing to participate in the study were excluded. A semi-structured interview schedule consisting of questions related to socio-demographic profile, details of present and past pregnancies and birth preparedness and complications readiness was used for data collection. Modified BG Prasad classification for the year 2023 was used to assess socio-economic status of study participants.¹²

Minimum sample size was estimated using the prevalence of well-prepared women as 58.5%, relative error of 15% at level of significance of 95%, and using the formula $N = Z^2 pq / L^2$ and came out to be 122.¹³ Finally a total of 141 eligible study subjects were included in the study. Husbands of all recently delivered women (those women who had delivered one day prior to the day of data collection) admitted in the hospital were included in the study and recruited using consecutive sampling. The investigators visited the postpartum ward of the hospital, explained the purpose of the study and obtained written informed consent from study participants before the initiation of data collection. If the selected postpartum women refused to participate in the study then the next eligible participant was included. To ensure quality of data collection, number of respondents that were interviewed per day was fixed to a maximum of ten participants.

Confidentiality of data was maintained. Study subjects were informed about the role of husbands in birth preparedness and to deal with any upcoming complications.

Collected data was entered in the master chart in MS Excel 2010 and analysis was carried out using R software v4.3.2 as per the objectives of the study. Descriptive statistics was used to demonstrate demographic characteristics of respondents. Chi-square test was used to compare proportion difference between categorical variables. Binary logistic regression analysis was performed to study the independent association of significant variables. p value of less than 0.05 was considered as statistically significant.

RESULTS

It was found out that 44.7% of study participants did not know of any danger signs of pregnancy, 54 (38.29%)

knew of three danger signs while the rest (17.02%) knew of more than three danger signs.

In this study, 60 females were primipara. Of the remaining multiparous females (81), during previous

pregnancy husbands paid for post-partum cultural expenses in three-fourth of the cases and 40% husbands accompanied wife for PNC visits. Of the newborns for whom naming ceremony was not organized, fifteen were females.

Table 1: Role of fathers in birth preparedness (n=141).

Role of husbands	Yes N (%)	No N (%)
Knowledge of danger signs	78 (55.3)	63 (44.7)
Took wife to hospital for any danger sign (either observed by himself or wife)	90 (63.8)	51 (36.2)
Know of financial support under Janani Suraksha Yojna (JSY)	57 (40.4)	84 (59.6)
Know of transport facility under Janani Shishu Suraksha Karyakram (JSSK)	54 (38.3)	87 (61.7)
Insist/aware wife for antenatal visits	30 (21.3)	111 (78.7)
Provided money to wife for transportation expenses of antenatal visits	114 (80.9)	27 (19.1)
Identify skilled birth attendant (SBA)	120 (85.1)	21 (14.9)
Help identify mode of transportation for delivery	123 (87.2)	18 (12.8)
Save money for delivery related expenses	114 (80.9)	27 (19.1)
Arrange blood donor	39 (27.7)	102 (72.3)
Arrange for nutritious diet for wife	117 (83)	24 (17)
Help with domestic chores	108 (76.6)	33 (23.4)
Allow wife to take rest	129 (91.5)	12 (8.5)
Provide emotional support to wife	132 (93.6)	9 (6.4)
Meet the doctor	96 (68.1)	45 (31.9)
Discuss among family/friends regarding pregnancy or delivery	117 (83)	24 (17)
Arrange food/clothes for mother and the baby	117 (83)	24 (17)
Happy with outcome of pregnancy	138 (97.9)	3 (2.1)
Wife is happy/satisfied with husband's support in present pregnancy	99 (70.2)	42 (29.8)

Table 2: Role of husbands in postpartum period during previous pregnancy (n=81).

Role of husbands	Yes N (%)	No N (%)
Organize naming ceremony for the baby *	48 (59.25)	33 (40.74)
Pay for post-partum cultural expenses	63 (77.77)	18 (22.22)
Accompany wife to hospital for PNC visits	33 (40.74)	48 (59.25)

*Fifteen (18.5%) were newborn females for whom naming ceremony was not organized.

Table 3: Reasons for lack of participation by study participants (n=141).

Reasons	N (%)
Not living together	6 (4.3)
Busy arranging food and money	36 (25.5)
Lack of interest	12 (8.5)
Feel that child birth is a woman's affair	3 (2.1)
Feel that child birth is a natural phenomenon not requiring much attention	3 (2.1)
Cultural / Religious barriers	9 (6.4)
Men are not allowed to enter the labour room	45 (31.9)
Lack of knowledge	12 (8.5)

Table 3 depicts that the commonest reasons for lack of participation by study participants were that men were not allowed to enter the labour room (31.9%) followed by being busy with livelihood (25.5%) and lack of knowledge or interest (8.5%).

As seen in Table 4, husband's knowledge of danger signs, taking wife to hospital for danger signs, insisting ANC, identifying SBA, arranging for transportation, food, helping with domestic chores, allowing rest and emotional support had significant association with wife's satisfaction towards husband's support (p value <0.05).

Table 4: Association of variables related to role of fathers in birth preparedness with wives' satisfaction for husband's support (n=141).

Role of husbands		Wife not satisfied with husband's support N (%)	Wife satisfied with husband's support N (%)	Statistics (χ^2 , df, p value)
Knowledge of danger signs	No	27 (42.9)	36 (57.1)	9.302, 1, p=0.003
	Yes	15 (19.2)	63 (80.8)	
Took wife to hospital for any danger sign	No	21 (41.2)	30 (58.8)	4.956, 1, p=0.026
	Yes	21 (23.3)	69 (76.7)	
Know of financial support under JSY	No	18 (31.6)	39 (68.4)	0.147, 1, p=0.72
	Yes	24 (28.6)	60 (71.4)	
Know of transport facility under JSSK	No	21 (38.9)	33 (61.1)	3.466, 1, p=0.063
	Yes	21 (24.1)	66 (75.9)	
Insist/aware wife for antenatal visits	No	21 (50)	21 (50)	11.685, 1, p=0.001
	Yes	21 (21.2)	78 (78.8)	
Identify SBA/place of delivery	No	12 (57.1)	9 (42.9)	8.829, 1, p=0.03
	Yes	30 (25)	90 (75)	
Help identify mode of transportation for delivery	No	12 (66.7)	6 (33.3)	13.419, 1, p<0.01
	Yes	30 (24.4)	93 (75.6)	
Save money for delivery related expenses	No	12 (44.4)	15 (55.6)	3.43, 1, p=0.064
	Yes	30 (26.3)	84 (73.7)	
Arrange blood donor	No	30 (29.4)	72 (70.6)	0.025, 1, p=0.875
	Yes	12 (30.8)	27 (69.2)	
Arrange for nutritious diet for wife	No	18 (75)	6 (25)	28.27, 1, p<0.01
	Yes	24 (20.5)	93 (79.5)	
Help with domestic chores	No	24 (72.7)	9 (27.3)	37.983, 1, p<0.01
	Yes	18 (16.7)	90 (83.3)	
Allow wife to take rest	No	9 (75)	3 (25)	12.82, 1, p<0.01
	Yes	33 (25.6)	96 (74.4)	
Provide emotional support to wife	No	9 (100)	0 (0)	22.661, 1, p<0.01
	Yes	33 (25)	96 (74.4)	
Meet the doctor	No	18 (40)	27 (60)	3.296, 1, p=0.069
	Yes	24 (25)	72 (75)	
Discuss among family/friends regarding pregnancy/delivery	No	21 (87.5)	3 (12.5)	5.65, 1, p=0.017
	Yes	21 (17.9)	96 (82.1)	
Arrange food/clothes for mother and the baby	No	12 (50)	12 (50)	46.062, 1, p<0.01
	Yes	30 (25.6)	87 (74.4)	

Table 5: Independent association of variables related to role of fathers in birth preparedness with wives' satisfaction for husband's support (n=141).

Variables	Sig.	Exp(B)	95% C.I. for EXP(B)- Lower	95% C.I. for EXP(B)- Upper
Knowledge of danger signs	0.018	7.200	1.408	36.816
Took wife to hospital for any danger sign	0.046	0.143	0.021	0.966
Insist/aware wife for antenatal visits	0.581	1.602	0.301	8.519
Help identify mode of transportation for delivery	0.759	1.623	0.074	35.821
Identify SBA/place of delivery	0.323	2.783	0.365	21.189
Arrange for nutritious diet for wife	0.454	0.414	0.041	4.170
Help with domestic chores	0.000	47.711	6.290	361.916
Allow wife to take rest	0.999	0.000	0.000	.
Arrange food/clothes for mother and the baby	0.000	77.900	14.640	414.517
Provide emotional support to wife	0.999	-	0.000	-
Constant	0.998	0.000		

On applying binary logistic regression analysis, it was seen that wives' whose husbands knew of danger signs were seven times more likely to be satisfied with their husband's support during pregnancy and postpartum period (p value 0.018). Further those husbands who took their wife to hospital for danger signs, helped with domestic chores and arranged food/clothes were likely to have 47 times and 77 times respectively satisfied wives for their support during pregnancy and postpartum period (p value <0.05).

DISCUSSION

The involvement of husbands in birth preparedness and complication readiness is a critical component of the World Health Organization's strategy to improve maternal outcomes. This hospital-based study evaluated the multifaceted roles of husbands, revealing a dichotomy between high levels of practical and emotional support and significant gaps in medical literacy and awareness of government health schemes.

Knowledge of danger signs and medical literacy

Our findings indicate that only 55.3% of husbands had knowledge of obstetric danger signs, with nearly 45% unable to identify a single warning symptom. This is consistent with studies conducted in similar low-and-middle-income settings, such as Ethiopia and Nepal, where male knowledge of danger signs often lags behind their willingness to provide financial support.^{14,15} Interestingly, while knowledge was moderate, 63.8% of husbands had actively taken their wives to the hospital for a danger sign. This suggests that while husbands may not recognize specific clinical symptoms, they are responsive to their spouse's perceived distress. However, the statistical correlation ($p=0.003$) between knowledge of danger signs and the wife's happiness with support underscores that medical literacy is a key determinant of perceived spousal support quality.

BPCR components: preparedness versus awareness

The study revealed high rates of preparedness in logistics: 85.1% identified SBA and 87.2% arranged transportation. These figures are higher than those reported in earlier regional studies, reflecting a positive shift toward institutional delivery.¹⁶ However, a significant gap was observed in blood donor readiness (27.7%), a critical component of complication readiness. This reflects a common trend where "readiness" is often viewed as a routine logistical task rather than a contingency plan for emergencies.¹⁷

Furthermore, awareness of government social safety nets was surprisingly low; only 40.4% were aware of financial support under Janani Suraksha Yojana (JSY) and 38.3% were aware of Janani Shishu Suraksha Karyakram (JSSK). This lack of awareness regarding entitlements may lead to unnecessary out-of-pocket expenditures, even

though 80.9% of husbands reported saving money for the delivery.

Domestic and emotional support

A highlight of this study is the high prevalence of emotional support (93.6%) and provision of a nutritious diet (83%). These results align with recent shifts in paternal roles where men are increasingly viewing themselves as "providers of care" rather than just "providers of funds".¹⁸ The strong statistical significance between helping with domestic chores ($p<0.01$), allowing rest ($p<0.01$), and the wife's satisfaction suggests that the woman's perception of support is rooted more in daily physical relief and emotional presence than in financial preparation alone.

Postpartum involvement and gender bias

The transition to the postpartum period showed a decline in certain aspects of involvement. Only 40.7% of husbands accompanied their wives for postnatal care (PNC) visits. This decline in the "fourth trimester" is a well-documented phenomenon where paternal focus shifts toward the newborn's ceremonies rather than the mother's recovery.¹⁹ A concerning finding was the gender disparity in naming ceremonies; 18.5% of newborns did not have a ceremony, all of whom were female. This suggests that despite modernization, deep-seated cultural preferences for male children continue to influence paternal engagement and celebratory investments in the postpartum period.²⁰

Barriers to participation

The primary barrier identified was being "busy arranging food and money" (25.5%), followed by the hospital policy of not allowing men into the labour room (31.9%). The latter is a systemic barrier that reinforces the "woman's affair" stereotype (noted by 2.1% of participants). Research indicates that hospital environments that are "male-unfriendly" discourage husbands from becoming active partners in the birthing process.^{21,22} Addressing these systemic barriers by creating space for "birth companions" could significantly enhance the husband's role in BPCR.

CONCLUSION

While husbands show high readiness in logistics and emotional support, their participation is hampered by low awareness of obstetric risks and government schemes. The correlation between a husband's active participation (chores, diet, and knowledge) and maternal satisfaction emphasizes that male involvement is not just a clinical necessity but a psychological one for the mother. To achieve favourable maternal and fetal health targets, hospital interventions should focus on educating husbands during ANC visits and reforming labour room policies to be more inclusive of male partners.²³

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