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Original Research Article

The impact of birth companion on respectful maternity care and labor outcomes among Indian women: a prospective comparative study

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ABSTRACT

Background: Childbirth is a transformative experience for women, and the presence of a birth companion has been shown to have positive effects on the labor process. This study aimed to investigate the influence of having a birth companion on respectful maternity care (RMC) and labor outcomes. The study was conducted at Pandit Bhagwat Dayal Sharma post graduate institute of medical sciences, Rohtak, India, from February 2020 to March 2021.
Methods: The study included two groups: group 1 (n=200) with a birth companion and group 2 (n=200) without a birth companion. Participants were recruited from laboring women at the labor ward, ensuring representation and minimizing bias. Inclusion criteria encompassed women between 37-41 weeks gestational age in active labor, with specific prerequisites for having a birth companion. Data were collected using a pre-set questionnaire to assess RMC, pain scores, behavior of medical personnel, and patient satisfaction. Secondary outcomes included the mode of delivery, duration of labor, complications, and the women's experience with their birth companion.
Results: The study revealed significant differences between group 1 and group 2 in various aspects. Group 1 exhibited lower rates of physical and verbal abuse, improved consented and confidential care, and higher overall scores for RMC. Group 1 also reported lower pain scores, more favorable behavior from healthcare providers, and better overall hospital experiences. Additionally, group 1 had fewer instrumental deliveries and cesarean sections, as well as a shorter duration of labor compared to group 2.
Conclusions: This study demonstrates that having a birth companion during labor significantly improves RMC, pain management, and labor outcomes. Women accompanied by a birth companion experience reduced rate of abuse, increased satisfaction with healthcare providers, and a more positive overall labor experience. Encouraging the presence of birth companions during childbirth can enhance women's experiences, promote RMC, and contribute to improved labor outcomes.

Keywords: Childbirth, RMC, Labor outcomes

INTRODUCTION

Childbirth is considered the most cherished, yet sometimes agonizing event in a woman's life and for her family. The process of labor can be an intimidating experience for women, particularly during their first delivery as they may encounter discomfort stemming from severe pain, worries, panic, and even postpartum depression.[1,2]

In today's era, with the rise of institutional deliveries, the absence of close family as well as loved ones has led to a lack of emotional support and increased anxiety for the laboring women.[3] The concept of "safe motherhood" often focuses solely on physical health and safety, neglecting the importance of providing emotional support and maintaining the dignity and respect of the laboring women. This deficiency is prevalent in many countries today as well as has led to the emergence of the concept of the RMC.[4]

World health organization states, "RMC refers to care organized for and provided to all women in a manner that maintains their dignity, privacy and confidentiality, ensures freedom from harm and mistreatment, and enables informed choice and continuous support during labour and childbirth."[5]

Abuse in maternity care refers to any deliberate or unintentional act by healthcare providers that causes physical, mental, or spiritual trauma to women, while disrespect in maternity care refers to the neglect of a woman's needs, personal dignity and the integrity.[6-9]

The presence of a birth companion throughout the labour process, from its initiation to breastfeeding, can have a significant impact and help minimize unnecessary patient-clinician interactions and optimize manpower during this critical time.[10]

Considering these factors, study aims to observe influence of having a birth companion on RMC and labour outcomes.

METHODS

This prospective comparative study was conducted from February 2020 to March 2021 at Pandit Bhagwat Dayal Sharma post graduate institute of medical sciences, Rohtak, India. The study aimed to investigate the impact of a birth companion on labouring women. Two groups were compared: group 1 (n=200) had a birth companion, while group 2 (n=200) did not. Subjects were randomly recruited from the labouring women at the Labor Ward, ensuring representation and minimizing bias.

The inclusion criteria for the study required participants to be between 37-41 weeks of gestational age, in active labour, and meet specific prerequisites for having a birth companion. These prerequisites aimed to create a supportive environment during labour. They included having a female relative with childbirth experience, no communicable diseases, and adherence to wearing clean clothes to minimize infection risks.

The birth companion's role was to offer continuous support to the pregnant woman during labor while refraining from interfering with hospital staff or treatment procedures. It was also emphasized that they should not attend to other women in the labour room.

Women with medical, obstetrical, or surgical conditions and high-risk pregnancies, including teenage pregnancy, elderly primigravida, history of adverse obstetric outcomes, gestational age outside the range of 37-41 weeks, and multigravida (gravida 4 or more), were excluded from the study. These exclusion criteria aimed to focus on low-risk pregnancies and minimize the potential influence of confounding factors on the study outcomes.

RMC was assessed based on components of physical abuse, confidentiality care, consented care, and dignified care. Pre-set questionnaire (Appendix 1) was utilized, with participants providing responses of yes or no. A score of 0 was assigned for "yes" response, while a score of 1 was assigned for "no" response. RMC score then calculated based on cumulative responses across these components.

The intensity of pain experienced by the participants was quantified using the Wong-Baker faces pain rating scale.[11]

The level of satisfaction among the women and their experience with their birth companion was determined through a pre-set questionnaire consisting of ten questions (Appendix-2 and 3). Participants were asked to rate their satisfaction on a five-point Likert scale ranging from 1 (poor) to 5 (excellent). The total score ranged from 10 to 50, with a score of 30 or higher indicating satisfactory levels of satisfaction.

The primary outcomes of this study encompassed three key areas: pain, the behaviour of medical personnel including doctors, staff nurses, and supporting staff, as well as overall satisfaction with the labour process.

Additionally, study also considered secondary outcomes, which included mode of delivery, duration of labour, complications during delivery, and women's experience with their birth companion.

RESULTS

As seen in Table 1, there was no statistically significant difference in age and period of gestation between the two groups. However, a significant difference was noted between the two groups in terms of duration of labour, RMC score, pain score, and satisfaction score.

Table 1: Various characteristics and their mean value in both groups.

Characteristics	Group 1	Group 2	P
Age (In years)	24.66±3.56	24.36±3.01	0.371
Period of gestation (week)	38.59±1.12	38.51±1.18	0.460
Duration of labour	9.96±1.62	11.67±3.66	0.01
RMC score	9.78±0.49	9±0.61	0.001
Pain score	4.97±1.5	6.52±1.66	0.001
Satisfactory score	30.91±1.84	28.15±2.1	0.001

Table 2: Distribution of patients in two groups according to their parity and mode of delivery.

Variables		Group 1, n (%)	Group 2, n (%)	Total, n (%)	P value
Parity	Nulliparous	94 (47)	67 (33.5)	161 (40.3)	0.40
	Para 1	87 (43.5)	103 (51.5)	190 (47.5)	
	Para2	19 (9.5)	30 (15)	49 (12.2)	
Mode of delivery	Vaginal delivery	194 (97)	183 (91.5)	377 (94.3)	0.84
	Assisted vaginal delivery	2 (1)	5 (2.5)	7 (1.8)	0.04
	Caesarean section	4 (2)	12 (6)	16 (4)	

As seen in Table 2, the parity between the two groups did not show any statistically significant difference. However, there was a significant difference in the mode of delivery between the two groups. Group 2 had a higher proportion of assisted vaginal deliveries and caesarean.

In group 1, patients were permitted to have a birth companion. Among them, 44% selected their mother-in-law, followed by sister-in-law (27%), sister (16.5%), and mother (8%). Additionally, 4.5% had other individuals such as their aunt, neighbour, or accredited social health activist (ASHA) worker as their chosen birth companion (Figure 1).

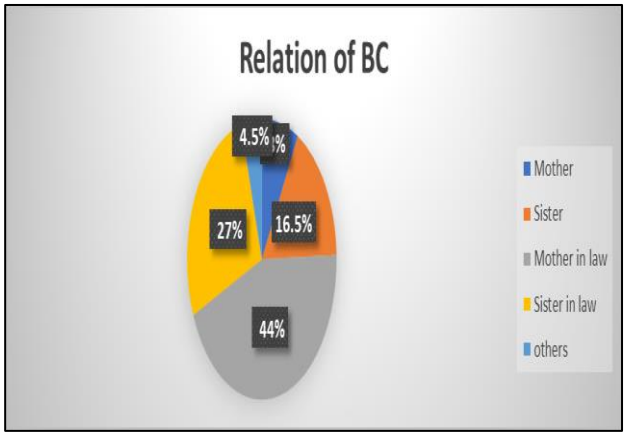

Figure 1: Relation of BC in group 1.

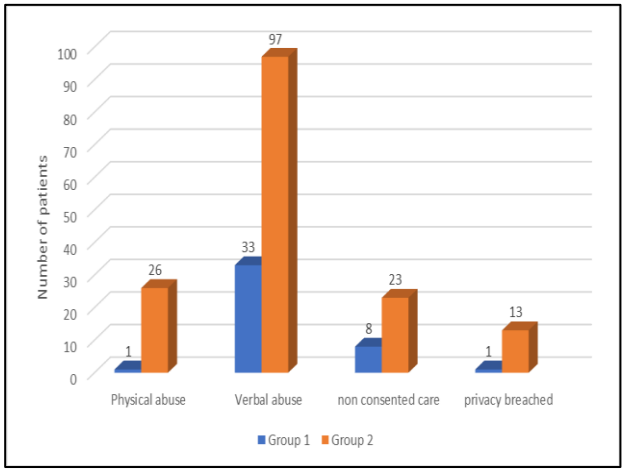

Figure 2: Frequency distribution according to components of RMC in group 1 and group 2.

In the two groups as can be seen in Figure 2, group 1 experienced statistically significant less physical abuse (0.5% vs 13%) and verbal abuse (16.5% vs 48.5%) compared to group 2 as part of RMC, with a p=0.001 and 0.001 respectively. Additionally, a statistically significant difference was seen between group 1 and 2, with higher values of non-consented care (4% vs 11.5%) and privacy breached (0.5% vs 6.5%) observed in group 2, p=0.001 and 0.001 respectively.

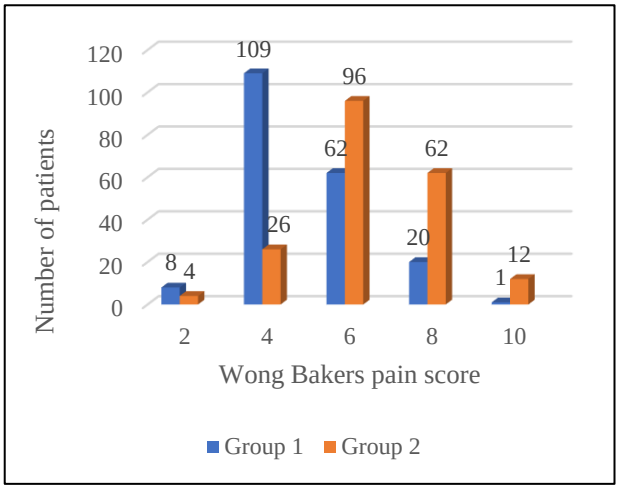

Figure 3: Comparative pain score experienced in two groups with and without BC.

In terms of pain score, group 1 had a mean value of 4.97±1.5, while group 2 had a mean value of 6.52±1.66. Group 2 showed a statistically significant higher pain score, with a p=0.001. Additionally, 37% of participants in Group 2 experienced pain of 8 or more, compared to only 10.5% in group 1 (Figure 3).

As can be seen from Table 3, there were significant differences between group 1 and group 2 in the behaviour of doctors/staff on arrival (p=0.001) and in the behaviour of non-doctor or nurse staff (p=0.009). Group 1 patients received more information about labor progress (p=0.001) and experienced prompter nurse responses (p=0.002), possibly due to the presence of a birth companion. However, there was no significant difference seen in time spent in examination and counselling between the two groups (p=0.19). Group 1 also had higher levels of privacy and a better overall hospital experience (p=0.04), with a higher likelihood of returning (p=0.001) compared to group 2.

Table 3: Distribution of patients in two groups as per satisfactory questionnaire.

Characteristics	Group 1	Group 2	P value
Behaviour of doctor/nurse on arrival	3.48±0.57	3.15±0.49	0.001
Behaviour of doctor/nurse during delivery	3.08±0.53	3.03±0.37	0.327
Behaviour of staff	3.0±0.44	2.9±0.35	0.009
Communication	2.7±0.57	2.0±0.55	0.001
Time spent in examination and counselling	3.2±0.57	3.11± 0.72	0.19
Promptness by nurses	2.78±0.51	2.63±0.43	0.002
Privacy	1.89±0.75	1.53±0.72	0.001
Overall experience	3.31±0.51	3.26±0.44	0.04
Return to hospital	3.53±0.50	3.27±0.46	0.001
Experience with BC	4.23±0.43	-	-

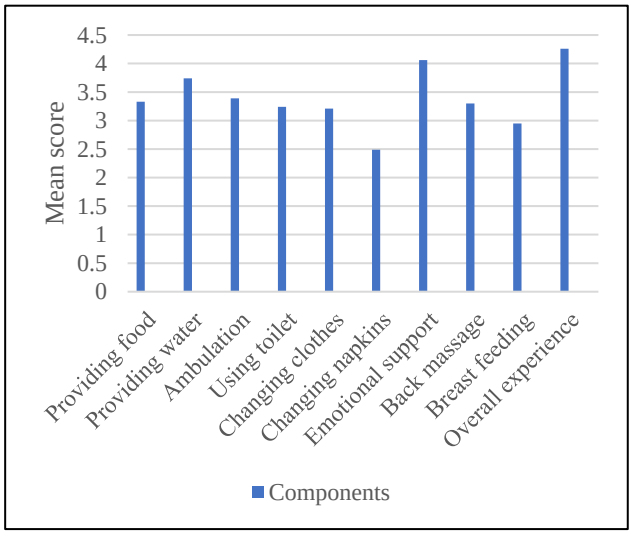

Figure 4: Mean score for various components of birth companion's duty.

The women's experience with a birth companion was assessed using various parameters (Figure 4). Patients reported satisfaction with the provision of food and water by their birth companion, as well as assistance with mobility and using the toilet. However, fewer patients found the birth companion helpful in changing napkins, likely due to cultural factors. The birth companion provided pain relief through back massage and emotional support, which increased the women's confidence. Overall, women accompanied by a birth companion expressed high satisfaction, with many finding the birth companion helpful in breastfeeding the newborn.

DISCUSSION

Birth companions play a crucial role in reducing anxiety and providing psychological support to women throughout the labor and delivery process. However, in modern-day hospitals, the presence of companions or support from hospital staff is often restricted due to workload and policies. Therefore, this study aimed to compare the impact of having a birth companion on RMC and labor outcomes.

In group 1, the majority of women chose their mother-in-law (44%) as their birth companion, followed by sister-in-law (27%). This preference may be attributed to the high respect and perceived wisdom of elder women in Indian households. In contrast, a study by Bruggemann et al reported that a woman's partner (47.5%) was the most preferred companion, followed by the woman's mother, mother-in-law, and sister-in-law.[12] These variations in companion preferences can be attributed to cultural differences and the institutional protocols that only allowed female companions in the present study.

Women in group 1 had fewer instrumental deliveries and cesarean sections compared to group 2 (3% vs. 8.5%, p=0.04). Similar results were observed in studies conducted by Khresheh et al, Noori et al and Kashanian et al where the number of cesarean deliveries was significantly lower in the intervention group, indicating a positive influence of having a birth companion.[13-15]

The study also revealed a significant difference in the mean duration of labor between group 1 (9.96±1.62 hours) and group 2 (11.66±3.67 hours), indicating a shorter duration of labor in the presence of a birth companion (p=0.01). Similar findings were reported in studies conducted by Langer et al, Kashanian et al, Mosallam et al and Dickson et al.[16-18] However, studies by Bruggemann et al and Khresheh et al did not find a significant difference in the duration of labor.[12,13] These discrepancies may be attributed to differences in institutional management and medical interventions across the studies.

In terms of RMC the presence of a birth companion in Group 1 was associated with reduced physical abuse, verbal abuse, and improved consented and confidential care. The overall mean RMC score was significantly higher in group 1, indicating improved RMC in the presence of a birth companion. These results align with the findings of Balde et al where the absence of labor companionship was associated with increased physical abuse, verbal abuse, and non-consented procedures.[19]

Pain experienced by mothers in group 1 was significantly less compared to group 2. Study conducted by Mossallam et al also reported that pain perception among women in the intervention group with a birth companion was lower, resulting in less need for analgesics and a more enjoyable experience compared to the control group where no

companion was allowed.[17] Similar results were observed in studies by Khresheh et al and Kashanian et al.[13,15]

Study observed improved behavior among healthcare providers (doctors, nurses, staff), promptness, privacy, and communication in group 1 compared to group 2 (p=0.001, 0.009, 0.002 and 0.001 respectively). However, no statistically significant difference was noted in behavior of doctors/staff during delivery and time spent in examination and counseling (p=0.327 and 0.19, resp.). This may be attributed to the high patient load in tertiary care center. To address this, additional support and counseling could be provided to women during their antenatal visits. Sharma et al and Balde also reported that presence of birth companion improved communication, waiting time and decreased mistreatment.[19,20]

The study assessed women's satisfaction using a predetermined questionnaire, and the results were considered satisfactory. Noori et al also concluded that the presence of a companion during labor increased mothers' satisfaction with the childbirth experience. Similar findings were reported by Bruggemann et al and Mossallam et al where less satisfaction and negative feelings were observed in group without companion.[12,14,17]

Birth companion provided various forms of support to women, including assistance with food and water, ambulation, changing clothes, using the toilet, and most importantly, emotional support, which reduced anxiety, fear, and helped cope with labor pains through back massage. The maximum positive effect of birth companion was observed in providing emotional support. Supportive and encouraging role of companions is also supported by studies conducted by Najafi et al and Banda.[21,22]

CONLCUION

In conclusion, the present study demonstrates that having a birth companion not only provides emotional and physical support to parturient women but also significantly improves their satisfaction with the labor process and the facility where they deliver. It is associated with shorter duration of labor, less pain, and reduced abuse (both verbal and physical) compared to women who are not allowed to have a birth companion. Therefore, allowing birth companions should be encouraged to enhance labor outcomes, satisfaction, and RMC.

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Questionnaire

Table 1: RMC questionnaire.

RMC component	Questions	Yes	No
For physical abuse	Whether patient experienced any physical abuse		
1	Pushed		
2	Pinched/beaten/slapped		
3	Used force as a restrain during examination/ labor/delivery		
4	Procedures done without anaesthesia		
For consented care	Whether surgical /other procedure done without asking her consent		
For dignified care	Whether abused verbally		
1	Whether health care providers scolded or shouted at her		
2	Whether negative comments were made about her		
3	Threatened to withhold treatment		
Confidential care	Whether exposed without her consent during examination		
1	Health care providers discussed her private health information in other's presence		
2	Whether her body parts were seen by other people (apart from health providers) during delivery		

Table 2: Satisfactory score questionnaire.

Sr. no	Attributes	Poor (1)	Fair (2)	Good (3)	Very good (4)	Excellent (5)
1.	How was the behaviour of treating doctor or nurse at arrival?					
2.	How was behaviour of staff other than doctor/nurse?					
3.	How was your experience for providing information by treating staff regarding progress of labor? (Communication)					
4.	Time spent for examination and counselling by doctor?					
5.	Promptness in response by nurses in labor room?					
6.	How was the behaviour of doctor/ staff during delivery?					
7.	How was your experience regarding privacy before, during and after delivery?					
8.	How was your overall experience in the hospital?					
9.	How likely are your return for your own family's treatment to this hospital?					
10.	How was your experience with the birth companion					

Table 3: Experience with birth companion questionnaire.

Sr. no	Attributes	Poor (1)	Fair (2)	Good (3)	Very good (4)	Excellent (5)
1	Providing food					
2	Providing drinking water					
3	Making patient ambulatory					
4	Helping in urination and toilet					
5	Helping in changing clothes					
6	Back massage to relieve pain					
7	Emotional support during labor process					
8	Helping breast feeding initiation					
9	Helping in changing napkins					
10	Overall experience.					