Original Research Article

Correlation between respectful maternity care and childbirth experience in a tertiary care centre

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ABSTRACT

Background: Respectful maternity care (RMC) is essential for a positive childbirth experience. Disrespectful maternity practices can lead to adverse maternal and neonatal outcomes. This study evaluates the correlation between RMC and childbirth experience among women delivering at a tertiary care centre. The objectives was to study the correlation between respectful maternity care and childbirth experience.

Methods: A cross-sectional study was conducted at the Department of Obstetrics and Gynaecology, Hind Institute of Medical Sciences, Safedabad, Barabanki, over 18 months (July 2023 to January 2025). A total of 150 postpartum women were enrolled using a consecutive sampling method. Data were collected using the Respectful Maternity Care (RMC) Questionnaire and the Childbirth Experience Questionnaire (CEQ). RMC was assessed across seven domains, while CEQ measured four dimensions of childbirth experience. Statistical analysis included correlation assessments between RMC and childbirth experience domains.

Results: The study found a significant correlation between RMC and childbirth experience ($p<0.001$). Domains of physical harm and ill-treatment ($r=0.734$), informed consent ($r=0.725$), and dereliction of care ($r=0.711$) showed strong associations with perceived safety and decision-making. Women who experienced greater autonomy, informed consent, and respectful care reported a better childbirth experience. The analysis also found that family structure influenced RMC, with joint family participants reporting significantly higher dignity scores ($p=0.032$). However, economic and educational status did not significantly impact RMC or childbirth experience.

Conclusions: The study highlights the critical role of respectful maternity care in shaping a positive childbirth experience. Improving patient autonomy, informed consent, and professional support can enhance maternal satisfaction and reduce negative childbirth experiences. Targeted interventions are needed to reinforce respectful maternity care practices in tertiary care settings.

Keywords: Respectful maternity care, Childbirth experience, Informed consent, Maternal satisfaction, Tertiary care

INTRODUCTION

Pregnancy, childbirth, and postpartum are crucial stages in a woman's life, involving physiological, psychological, and emotional changes. The Indian government has taken many measures to improve maternal and new born health, including the LaQshya project, targeted to improve the quality of care in delivery rooms and maternity surgeries.[1] In light of these improvements, respectful maternity treatment (RMC) has become a critical element of better obstetric care.[2,3] RMC involves the humane and dignified care of women during childbirth, respecting their rights and wishes through effective communication, positive attitudes and appropriate obstetrician behaviour. Respectful maternity treatment (RMC) encompasses concepts such as informed consent, privacy, emotional support, autonomy and protection from abuse and discrimination.[4-6] Research has shown that verbal and physical abuse, neglect, inadequate privacy and denial of

informed choice negatively impact delivery experiences.[4,7] A positive birth experience can improve maternal mental health, promote early bonding between mother and child and increase parental confidence.[8] In tertiary facilities characterized by high patient volumes, RMC principles may be unintentionally neglected, resulting in substandard birth experiences.[9] The study explored the relationship between RMC and childbirth experiences in tertiary care centres in India.

METHODS

This study was a cross-sectional study which was conducted in Department of Obstetrics and Gynaecology, at Hind Institute of Medical Sciences, Safedabad, Barabanki after getting approval of ethical committee for a duration of 18 months (July 2023 to January 2025). The study included women aged 18-49 years who delivered in the tertiary care centre and gave written and informed consent to participate in the study. Women who had adverse obstetric outcomes like stillbirth or neonatal death, were not in a state to respond and were not willing to participate were excluded from the study. A total of 150 female patients were selected based on the criteria. The participants were briefed on the objectives and methods of the study and requested to sign a written informed consent in case they were willing to participate in the study. The RMC questionnaire which was developed initially by Sheferaw et al and childbirth experience questionnaire developed by Dencker et al were used in our study.[10,11] The data was collected at two points. A face to-face interview using RMC questionnaire was carried out 6-8 hours post-partum. A second interview was conducted at the time of discharge using childbirth experience questionnaire. The study tool comprised of questionnaire consisting of three parts. The first part of the questionnaire included information on participants' sociodemographic characteristics such as age, religion, education, occupation, type of family, and socioeconomic status. The second part comprised of questions based on seven major categories of the RMC charter 1 which included-physical abuse, non-consented care, non- confidential care, non-dignified care, discrimination based on specific attributes, abandonment or denial of care, and detention in a facility. Childbirth experience questionnaire comprised the third part. The English version of the questionnaire was translated into vernacular language (Hindi) to ensure content clarity for participants. For respectful maternity care, all the items in each of the seven major domains was scored on a 3-point Likert scale-always, sometimes, never as 2, 1, 0, respectively, or yes, no as 2, 0, respectively. For some of the items like, did the staff scream or shout over you, reverse coding was done wherein always, sometimes, never was scored as 0, 1, 2, respectively, or yes, no scored as 0, 2, respectively. The highest attainable score was 2, and the higher the score better was the quality of respectful maternity care. Childbirth questionnaire consisted of 4 domain which included-own capacity, professional support, perceived safety and participation. The statistical analysis was performed with SPSS version 21.0. The data

were presented in the form of mean (standard deviation) and percentage (%). The chi-square test was used to compare categorical variables, while the independent t-test was used to assess discrete variables between groups. A p value of 0.05 was considered statistically significant.

RESULTS

Sociodemographic factors

The majority belonged to the 25-29 years age group (41.33%, n=62). The mean age of participants was 26.75±3.97 years. Out of the 150 participants, the majority (89.33%, n=134) were Hindu, while 10.67% (n=16) were Muslim. Out of 150 participants, the majority (48.00%, n=72) had primary education, followed by graduates (23.33%, n=35) and those with secondary education (21.00%, n=32). A smaller proportion (7.33%, n=11) were illiterate. Out of 150 participants, the majority (84.00%, n=126) were homemakers, while a smaller proportion were engaged in skilled (8.67%, n=13), unskilled (4.00%, n=6), and semi-skilled (3.33%, n=5) occupations. Out of 150 participants, the majority (78.67%, n=118) belonged to a joint family, while 16.67% (n=25) lived in a nuclear family. Out of 150 participants, the majority (52.00%, n=78) belonged to the lower middle class, followed by 22.67% (n=34) in the upper middle class. A smaller proportion were from the upper lower class (13.33%, n=20) and the lower class (12.00%, n=18). The summary of these factors can be summarised in Table 1.

Table 1 shows various sociodemographic factors and the number and percentage of majority participants in all those categories.

Table 1: Sociodemographic factors and the number and percentage of majority participants in all those categories.

S. no.	Sociodemographic factors	Majority participants
1.	Age	25-29 years (41.33%, n=62).
2.	Religion	Hindu (89.33%, n=134)
3.	Education	Primary (48.00%, n=72)
4.	Occupation	Homemakers (84.00%, n=126)
5.	Family Type	Joint Family (78.67%, n=118)
6.	Socioeconomic Status	Lower Middle (52.00%, n=78)

RMC scores across domains

Domain 1: Physical harm & ill treatment

The mean score for physical harm and ill treatment was 8.97±1.42, with a median of 10.00 and an interquartile

range (IQR) of 8-10. The minimum score recorded was 5, while the maximum was 10.

Domain 2: Informed consent and choice

The highest mean score was observed in informed consent and choice (16.04±2.84), with a median of 17.00 and an IQR of 14-18. The scores ranged from 7 to 20.

Domain 3: Dignified treatment and respect

The mean score for dignified treatment and respect was 8.77±1.52, with a median of 9.50 and an IQR of 8-10. The scores ranged from 4 to 10.

Domain 4: Dereliction of care

The mean care score was 13.40±2.37 (median: 14, IQR: 13–15), with scores ranging from 7 to 18.

Domain 5: Discrimination based on attributes

This domain had a fixed score of 2.00 for all participants, indicating no reported cases of discrimination based on caste, religion, socioeconomic class, or disability.

Domain 6: Detention in facility

The mean score for detention in the facility was 3.84± 0.54, with a median of 4.00 and an IQR of 4-4. Scores ranged from 2 to 4.

Domain 7: Non-confidential care

The mean score for non-confidential care was 5.50±0.82, with a median of 6.00 and an IQR of 5-6. The scores ranged from 3 to 6.

Various scores across different domains of RMC are summarised in Table 2 and Figure 1.

Table 2 shows different domains of RMC and scores measured in mean, median, standard deviation, minimum and maximum scores with interquartile range (IQR).
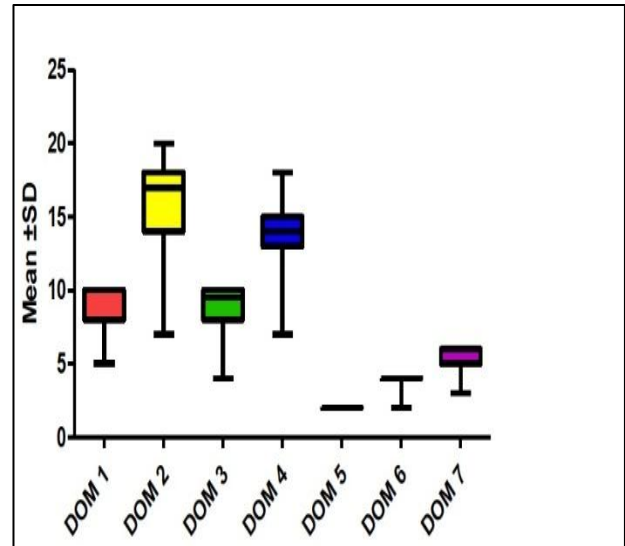

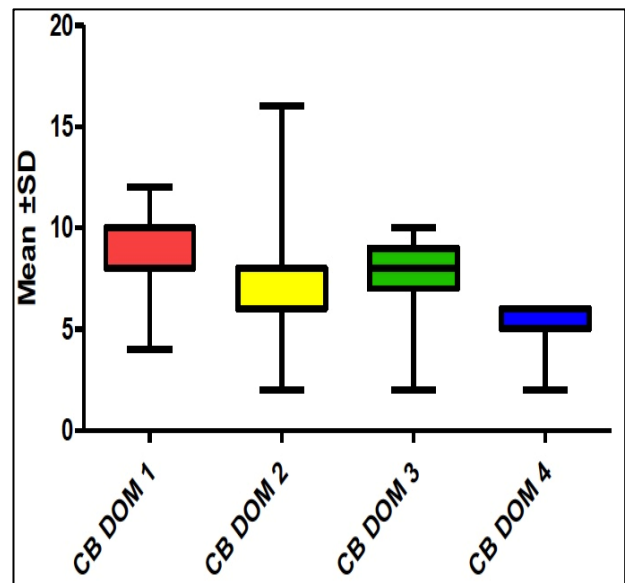**Figure 1: Mean on Y-axis versus 7 domains of RMC on X-axis.**

Figure 2: Mean on Y-axis versus 4 domains of Childbirth Experience on X-axis.

Table 2: Different domains of RMC and scores measured in mean, median, standard deviation, minimum and maximum scores with IQR.

Domains	Mean	Median	Std. deviation	Minimum	Maximum	IQR	
						25	75
DOM 1	8.97	10.00	1.42	5	10	8	10
DOM 2	16.04	17.00	2.84	7	20	14	18
DOM 3	8.77	9.50	1.52	4	10	8	10
DOM 4	13.40	14.00	2.37	7	18	13	15
DOM 5	2.00	2.00	0.00	2	2	2	2
DOM 6	3.84	4.00	0.54	2	4	4	4
DOM 7	5.50	6.00	0.82	3	6	5	6

Table 3: Different domains of childbirth experience scores measured in mean, median, standard deviation, minimum and maximum scores with IQR.

Domains	Mean	Median	Std. deviation	Minimum	Maximum	IQR	
						25	75
CB DOM 1	9.09	10.00	1.92	4	12	8	10
CB DOM 2	7.13	8.00	1.82	2	16	6	8
CB DOM 3	7.82	8.00	1.87	2	10	7	9
CB DOM 4	5.24	6.00	1.12	2	6	5	6

Table 4: Correlation between RMC scores and CEQ scores with p value < 0.05 as statistically significant.

Domains		CB DOM 1	CB DOM 2	CB DOM 3	CB DOM 4
DOM 1	Pearson correlation	0.682**	0.590**	0.734**	0.801**
	P value	<0.001	<0.001	<0.001	<0.001
DOM 2	Pearson correlation	0.725**	0.497**	0.631**	0.757**
	P value	<0.001	<0.001	<0.001	<0.001
DOM 3	Pearson correlation	0.432**	0.511**	0.630**	0.612**
	P value	<0.001	<0.001	<0.001	<0.001
DOM 4	Pearson correlation	0.541**	0.555**	0.711**	0.746**
	P value	<0.001	<0.001	<0.001	<0.001
DOM 5	Pearson correlation				
	P value	.	.	.	.
DOM 6	Pearson correlation	0.193*	0.293**	0.314**	0.329**
	P value	0.018	<0.001	<0.001	<0.001
DOM 7	Pearson correlation	0.258**	0.059	0.274**	0.250**
	P value	0.001	0.475	0.001	0.002

**:Statistically significant

Childbirth experience scores across domains

Domain 1: Own capacity (CB DOM 1)

The mean score for own capacity during childbirth was 9.09±1.92, with a median of 10.00 and an IQR of 8-10. The minimum score was 4, and the maximum was 12.

Domain 2: Professional support (CB DOM 2)

The mean score for professional support was 7.13±1.82, with a median of 8.00 and an IQR of 6-8. Scores ranged from 2 to 8.

Domain 3: Perceived safety (CB DOM 3)

The mean score for perceived safety was 7.82±1.87, with a median of 8.00 and an IQR of 7-9. Scores ranged from 2 to 10

Domain 4: Participation in decision-making (CB DOM 4)

The mean score for participation in decision-making was 5.24±1.12, with a median of 6.00 and an IQR of 5-6. Scores ranged from 2 to 6.

Various scores across different domains of childbirth experience are summarised in Table 3 and Figure 2.

Table 3 shows different domains of childbirth experience scores measured in mean, median, standard deviation, minimum and maximum scores with IQR.

Correlation between RMC and childbirth experience (CEQ) scores

Statistically significant positive correlation was found between RMC and childbirth experience. Strong association was seen in the following categories.

Physical harm and ill-treatment and participation (r=0.801, p<0.001) perceived safety (r=0.734, p<0.001).

Informed consent (r=0.725, p<0.001) with participation by women.

Modest association was seen between dignified treatment and care negligence and childbirth experience. Weak association was seen between detention in facilities and non-confidential treatment and childbirth experience. Correlation between RMC and CEQ scores are summarised in Table 4.

Table 4 shows correlation between RMC scores and CEQ scores with p<0.05 as statistically significant.

DISCUSSION

Sociodemographic factors

In our study we found that most participants were aged 25-29, followed by 18-24, and 30-34. The mean age was 26.75±3.97 years, which aligns with previous research on the demographic distribution of women receiving maternity care. Our results are similar to Hajizadeh et al where 48.5% of women were 26–35 years old, 39.5% were 18-25, and 12.3% were 36 and older.[12] Muhayimana et al found that 73.1% of mothers were 21-35 years old, with 14.3% aged 18-20 and 12.6% aged 36-44.[13] Birie et al found that 50.8% of women were 25-34 years old, followed by 15-24 (29.5%) and 35-49 (19.7%).[14] These data support the trend that most women obtaining maternity care are 25-34 years old, with a lower percentage younger and older.

In our study, most participants (89.33%, n=134) were Hindu, while 10.67% (n=16) were Muslim. The religious distribution mirrors the main population mix of the area where the survey was undertaken, with Hinduism being the principal religion affiliation. Studies done in India showed similar trend with Hinduism being the predominant faith.[15]

In our study, most participants (84.00%) were homemakers, with a smaller proportion engaged in skilled, unskilled, and semi-skilled occupations.

According to Devi et al 69.0% were homemakers, followed by self-employed women (22.1%), private-sector workers (6.2%), and government employees (2.7%).[15] Homemakers dominated both surveys, although ours had a greater share. In contrast, Hajizadeh et al found 95.5% of participants employed.[12] This implies that in certain places, more women work during pregnancy, which may affect their maternity care, financial autonomy, and health decisions.

In our study, we found that the majority (48.00%, n=72) had primary education, followed by graduates (23.33%, n=35) and those with secondary education (21.00%, n=32). A smaller proportion (7.33%, n=11) were illiterate. Devi et al found that 31.9% had high school diplomas, 22.1% had higher secondary degrees, and 18.6% had graduate degrees.[15] Their research included 5.3% elementary education and 5.0% illiteracy, showing a better educational position than ours.

In our study, we found that 78.67% of participants were from joint families, indicating a strong traditional family structure. This may impact maternity care experiences, decision-making processes, and support systems during childbirth. Women in joint families may benefit from greater familial support, but decision-making autonomy in healthcare choices may be influenced by family elders, cultural norms and collective family decisions. A comparable study by Birie et al classified family size based on the number of household members, reporting that 69.2% of families had ≤4 members (indicative of nuclear families), while 30.8% had ≥5 members (suggesting extended or joint family setups).[14] Although their study did not categorize family structure explicitly, the higher proportion of smaller family units suggests a greater prevalence of nuclear families compared to our study.

In our study, the majority of participants (52.00%, n=78) belonged to the lower middle class, with 22.67% in the upper middle class. Women from lower socioeconomic backgrounds may face financial constraints, limited healthcare access, and potential disparities in maternity care services. According to Hajizadeh et al most women had a moderate economic position (76.6%), with a lesser share in the low (7.2%) and high (16.2%) economic categories.[12]

RMC across the domains

In our research, the highest mean score was observed in the domain of informed consent or choice (16.04±2.84), highlighting effective communication and decision-making involvement, aligning with findings by Devi et al who noted only 4.4% of participants reported inadequate process explanations.[15] Similarly, Altahir et al reported 35% of providers failed to introduce themselves or obtain consent.[16] The mean score for physical harm and ill treatment was 8.97±1.42, with a median of 10.00, suggesting adequate physical care, aligning with RMC rates of 63.42% Hajizadeh et al and 66% Sheferaw et al.[10,12] Dignified treatment scored 8.77±1.52, while Devi et al reported 64.3% faced abuse, in contrast to Sando et al who noted only 6% undignified care.[15,17] Singh et al documented verbal abuse in 93% cases, underscoring global issues.[18]

Dereliction of care scored 13.40±2.37, consistent with findings by Mousa et al and Rosen et al regarding delayed care and abandonment.[19,20] Discrimination scored a uniform 2.00 in our study, denoting no reported bias, in line with Hajizadeh et al but contrasting with elevated rates in African and South Asian contexts Bohren et al and Yadav et al.[21,22,24] Detention due to financial coercion scored low (3.84±0.54), diverging from Devi et al and Sharma et al who reported unofficial payment demands at 10.3% and 65%, respectively.[15,23] Non-confidential care scored 5.50±0.82; 9.4% of women in Devi et al and 94.3% in Yadav et al faced privacy issues, often due to infrastructural constraints by Lusambili et al.[15,21,24] Overall, our findings align with Sando et al who reported 66% RMC with Indian estimates of maltreatment ranging from 28.8% to 71.31% Raval et al and Ansari et al.[17,25,26]

The childbirth experience across domains

Our study explored birthing experiences across four domains. The mean self-capacity score was 9.09±1.92, showing most women felt capable, aligning with Hajizadeh et al, Sheferaw et al, Rasouli and Ghanbari-

Homayi.[10,22,27,28] Professional support scored 7.13±1.82, though some reported delays and poor communication, as noted by Bohren et al, Mousa and Turingan, and Rosen et al.[5,19,20]

Perceived safety scored 7.82±1.87, indicating general comfort, though concerns about procedures persisted. Hajizadeh et al and Mousa emphasized non-discriminatory care, while Bohren et al noted racial bias concerns.[5,12,19]

Decision-making scored lowest at 5.24±1.12, with limited patient autonomy. Devi et al and Altahir et al found low informed consent rates (4.4% and 35%) and 48.7% of women couldn't choose birthing positions, consistent with Afulani et al and WHO.[14-16,29,30]

Correlation between RMC and childbirth experience

This study underscores the substantial correlation between RMC and childbirth experience (CEQ), with physical harm and ill-treatment (r=0.734, p<0.001) and informed consent (r=0.725, p<0.001) exhibiting the most robust associations with perceived safety and participatory decision-making. Women who had superior physical care, informed consent, and autonomy reported more favourable birthing experiences, underscoring the need for patient-centred maternity care. The association between dignified treatment and dereliction of care was modest, highlighting the influence of provider attitudes and continuity of care. Detention in facilities and non-confidential treatment shown lesser, although significant relationships; these elements nevertheless impacted women's perception of control and security during labour.

Limitations of the study

The major limitation of our study were data was collected from a single tertiary care center, limiting generalizability of the study. There were self-reported responses which may be affected by recall and social desirability bias. The study did not account for variations in provider training, workload, or institutional policies affecting RMC. Future studies should include more diverse settings and qualitative interviews for deeper insight.

CONCLUSION

Based on our study we can conclude that Positive childbirth experiences are linked to Freedom from physical abuse, Informed consent, Dignified treatment and Continuity of care. Providing treatment free from any abuse, improving patient autonomy and continuous care throughout labour can enhance maternal satisfaction and reduce negative childbirth experience.

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