International Journal of Community Medicine and Public Health
Das D et al. Int J Community Med Public Health. 2026 Jul;13(7):3757-3767
https://www.ijcmph.com
pISSN 2394-6032 | eISSN 2394-6040

DOI: https://dx.doi.org/10.18203/2394-6040.ijcmph20262280

Original Research Article

A cross-sectional study on the prevalence of respectful maternal care among postnatal women during facility-based childbirth in a tertiary care centre in Bihar, India

Dipti Das*, D. Koteswaramma

College of Nursing, All India Institute of Medical Sciences, Patna, Bihar, India

Received: 19 April 2026
Accepted: 19 June 2026

***Correspondence:**
Dipti Das,
E-mail: dipti13114@aiimspatna.org

ABSTRACT

Background: Respectful maternal care (RMC) protects pregnant women's rights to maintain dignity and respect, ensuring appropriate, supportive care and autonomy. This study aimed to explore the prevalence of RMC in a tertiary healthcare setting and investigate its association with sociodemographic and obstetric variables.
Methods: A cross-sectional descriptive study design was conducted using a convenience sampling method. RMC was assessed among postnatal mothers using the standard Indian Person-Centred Maternity Care (PCMC) tool through face-to-face interviews conducted between mid-January and mid-March 2025. The data were analysed using SPSS version 25, calculating means±SD and frequency percentage distributions, and the chi-square test.
Results: In this study, it was found that the mean value of the PCMC score was 76.25% and 54% of women received adequate RMC. The most deficient domains were communication and autonomy, followed by supportive care. Women reported experiences of verbal abuse (23.3%), physical abuse (1.9%), feeling exposed with a lack of privacy during examinations (47%), providers never introducing themselves (36.7%), and delays in receiving treatment (78.1%). Moreover, 78.6% of women said they were never allowed to choose a birth companion during delivery. RMC was significantly associated with religion ($p<0.05$, df=1 at the 95% confidence level). It reflects the influence of religious diversity on experiences of disrespect.
Conclusions: The prevalence of RMC was only 54%. Therefore, healthcare providers require training to upgrade their communication skills and supportive care for women, which will improve access to quality public health services.

Keywords: Bihar, Facility-based childbirth, India, Postnatal women, Prevalence, Respectful maternal care, Tertiary care centre

INTRODUCTION

Maternal health encompasses the well-being of women during pregnancy, childbirth, and the postnatal period. Each of these stages should be a safe and positive experience for both the mother and baby. Although significant improvements have been made in the last two decades, an estimated 287,000 women died globally due to pregnancy and childbirth-related causes in 2020, according to the WHO.[1] Most of the maternal deaths, including those reported globally, are preventable if they are performed by a skilled health care provider on time in a supportive environment.

According to the WHO, respectful maternity care (RMC) refers to the humane and dignified treatment of a childbearing woman throughout her pregnancy, childbirth, and the postpartum period. It focuses on women's rights and preferences through effective communication and positive attitudes.[2] The concept of safe motherhood initiatives is a global effort, and it is designed to reduce maternal death and improve women's

health through social, community, and economic interventions. This should include rights to maintain dignity and respect, ensuring appropriate supportive care, and autonomy for pregnant women during maternity care.[3] However, reported evidence indicates that disrespect and mistreatment during childbirth remain prevalent globally, including physical or verbal abuse, discrimination, and non-consented care.[2,4] Globally, disrespect and abuse during labour have been widespread, ranging from 15% in Tanzania to over 90% in Nigeria and Peru.[5-7] The study by WHO (2019) in four lower-income countries- Ghana, Guinea, Myanmar, and Nigeria- showed that 42% of women experienced abuse or neglect during the childbirth process.[8]

In India, the Ministry of Health and Family Welfare, Government of India, also launched a program, Laqshya (Labour Room Quality Improvement Initiative), in 2017 to enhance beneficiary satisfaction, promote positive birthing experiences, and provide RMC to all women accessing public health services.[9] However, disrespect and abuse during childbirth have also been documented in various parts of India. For instance, disrespect in intrapartum care within community health facilities was highlighted in Gujrat.[10] A study in West Bengal found that 37.6% of women experienced at least one form of disrespect or abuse during facility-based childbirth, while 98.5% of women experienced the same in Uttar Pradesh.[11,12]

Women are particularly vulnerable during pregnancy, labour, and childbirth, and inadequate maternity care has been linked globally to adverse physical and psychological outcomes. Evidence from the UK indicates that insufficient care leads to breastfeeding reluctance and poor mother-infant bonding.[13] A qualitative study from Denmark documented unsatisfactory sexual relationships, and findings from Iran reported reduced quality of life.[14,15] Also, lack of supportive care during childbirth is associated with increased fear of vaginal delivery, reluctance to use alternative birthing positions, and greater preference for caesarean section.[16-18] Although these traumatic experiences may decrease over time, they can persist in memory up to five years.[19] A prospective cohort study of Iranian women showed a direct correlation between RMC and a positive birthing experience.[20] Therefore, maternity staff have a great role in the physical and emotional aspects of pregnancy, can provide compassionate and supportive care throughout the pregnancy.

In India, RMC studies are not explored much; particularly, they remain scarce in the eastern region. Bihar is a low socio-economic state in eastern India with a population of 10.41 crore and reports that 64% of births occur in health facilities (NFHS-4, 2015-16).[21] A qualitative study has explored in Bihar related to women's childbirth using body mapping techniques, however, a comprehensive assessment of RMC is not documented in the literature.[22]

Therefore, this study aimed to determine the prevalence of RMC during facility-based childbirth in a tertiary care hospital of Bihar and to analyse its association with maternal background characteristics.

METHODS

Study design

It was a cross-sectional descriptive research design was adopted for this study.

Operational definition

Prevalence

Prevalence is calculated as the number of postnatal women who received adequate respectful maternity care divided by the total number of postnatal women in the study, multiplied by 100.

RMC

RMC is measured using the PCMC-India scale. Women scoring equal to or above the mean score of the full PCMC scale and each subdomain are categorized as receiving adequate RMC, while those scoring below the respective mean are considered as receiving inadequate RMC.

Postnatal women

Refers to all mothers who have undergone childbirth (vaginal or cesarean) and have been admitted to the postnatal ward of All India Institute of Medical Sciences (AIIMS) Patna during the data collection period. Among them who are available, willing to participate, and able to provide coherent responses are included.

Study setting

This study was conducted in the postnatal ward of the AIIMS, Patna, Bihar. Patna, the state capital with a population of about 2.35 million, covering an area of approximately 250 square kilometres, is a key urban centre in eastern India. AIIMS Patna is a government tertiary care teaching and research hospital that serves as a referral centre for the diverse population of Bihar and nearby states. It provides comprehensive maternal and child health services along with other major departmental services, conducts 150-200 deliveries per month (1,800-2,400 annually) through vaginal or caesarean section. The hospital is well-equipped and adequately staffed with multidisciplinary teams to manage its high patient load.

Study period

This study took place for a period of 2 months from mid-January to mid-March 2025.

Study population

Postnatal women who have delivered in AIIMS Patna during the study period.

Inclusion criteria

Postnatal mothers, defined in the above section, were included with their written consent.

Exclusion criteria

Postnatal mothers who were unavailable during the study period or had delivered in hospitals other than AIIMS Patna.

Sampling technique

A convenience sampling technique was used.

Sample size

Poudel et al conducted a study on RMC in Nepal. Results showed that only 17% of women had received RMC.[23] So, from there prevalence rate was taken as 17%.

n = sample size

d=5%, that is the confidence interval (then d =0.05)

p=Expected prevalence or proportion (17%) =0.17 (Expected prevalence of RMC among postnatal women during facility-based childbirth)

Where, q = (1-p) = (1- 0.17) = 0.83

Z_α= 1.96 at 95% CI

So, by putting the values in the formula,

$$n = \frac{(Z_\alpha)^2 \times p \times q}{d^2}$$

$$= \frac{(1.96)^2 \times 0.17 \times 0.83}{(0.05)^2}$$

n= 216.82=217

Therefore, the calculated sample size was 217. As data were collected at a single point in the health facility before discharge, there was no follow-up component; therefore, dropout rates were not considered in this study.

Study variables

Research variable

Prevalence of RMC among postnatal women during institutional delivery.

Background information

Socio-demographic variables- age, residence, religion, education, occupation, and monthly family income.

Obstetric variables- parity, antenatal care (ANC) follow-up, gestational age, mode of delivery, and outcome of present pregnancy.

Data collection tools:

Tool-I was a semi-structured questionnaire, developed from the literature review and experts' opinion, to collect socio-demographic and obstetric data. These variables were included as they influence healthcare access, decision-making, and women's perception of RMC.

Tool-II standardized PCMC scale- India, developed by Afulani et al, to evaluate the prevalence of RMC.[24] Prior permission was obtained from the author for the use of this tool. This tool has demonstrated good content, construct, and criterion validity, and shows high internal consistency (Cronbach's alpha =0.85). The tool is divided into three conceptual domains, namely communication and autonomy (9 items), dignity and respect (6 items), and supportive care (12 items). Subscales for dignity and respect, communication and autonomy, and supportive care are also demonstrated acceptable reliability (Cronbach's alpha range: 0.67-0.73). The PCMC scale has 27 items with a total score from 0 to 81, and higher values depict more positive experiences of maternity care.

Technique

A face-to-face interview schedule was conducted to collect the data.

Ethical approval

The ethical approval for this study was obtained from the Institutional Ethical and Research Committee, AIIMS Patna (Ref. No.: AIIMS/Pat/IEC/1375, dated 30.12.2024). Written informed consent was obtained from all participants after explaining the aims and objectives of the study, as well as their right to withdraw at any stage without affecting their care. Confidentiality and anonymity were strictly maintained throughout the study.

Data collection process

This prospective study was conducted over two months (mid-January 2025 to mid-March 2025) in the postnatal ward of AIIMS Patna. Eligible women were identified according to defined above inclusion and exclusion criteria during daily ward rounds, excluding Sundays and public holidays. Clinical details were verified from medical records. A trained investigator introduced herself, explained the study's aims, objectives, risks, and benefits in the local language (Hindi), and obtained written informed consent. Ethical approval was secured

from the institutional ethics committee before data collection. Bedside interviews were conducted before discharge from the hospital, ensuring privacy, confidentiality, and minimizing disturbances from staff and family members. During the study period, a total number of 318 women were admitted to the postnatal ward. Of 225 approached, 219 consented, and complete data were obtained from 215 participants; four incomplete responses were excluded. Reasons for non-participation included reluctance to discuss childbirth, postpartum fatigue, maternal or neonatal illness, or non-specific responses. A total of 312 deliveries occurred, including 141 vaginal and 171 caesarean births, with 301 live births and 11 stillbirths/IUFDs during the study period.

Statistical method

Collected data were entered in Microsoft Excel and analysed using SPSS version 25.0. Women's experiences of RMC were assessed using a 4-point Likert scale (03: no, never =0; yes, a few times =1; yes, most of the time =2; yes, all the time =3). Negatively framed items were reverse-scored. Total scores ranged from 0-81, with higher scores indicating better care; these were rescaled to 0-100 for domain-wise comparison using the formula:

Table 1: Domain-wise comparison.

Scale or subscale	No. of items	Possible range of summative scores	Summative score for sample	Rescaled score for sample	Possible range of rescaled score
Full PCMC	27	0-81	W	(W/81) × 100	0-100
Dignity and respect	6	0-18	X	(X/18) × 100	0-100
Communication and autonomy	9	0-27	Y	(Y/27) × 100	0-100
Supportive care	12	0-36	Z	(Z/36) × 100	0-100

Categorical variables, i.e., socio-demographic and obstetric variables and PCMC categories, were summarized as frequencies and percentages using descriptive statistics. Quantitative variables (age, PCMC scores) were tested for normality by checking skewness, kurtosis, the Shapiro-Wilk test, histogram, and Q-Q plot. Our data showed a normal distribution. So, the mean and standard deviation (SD) were reported.

Based on the PCMC scale score guidelines, the mean value was considered the cut-off for RMC, which is also followed by several groups.[11,24-32] Women scoring equal to or above the mean score were categorized as receiving adequate RMC for most of the time, while those scoring below this threshold, considered to have an inadequate RMC. Chi-square tests were used to examine associations between RMC prevalence and selected sociodemographic and obstetric variables. A two-sided p value <0.05 was considered statistically significant at a 95% confidence interval.

RESULTS

Frequency and percentage distributions of background information are depicted in Table 2. Among the socio-demographic variables, the majority of women (75.3%) were aged between 21 and 30 years, with a mean age of 26.3 years (±SD 4.51; range 17-42). Over half of the participants resided in rural areas (52.6%), and most identified as Hindu (81.4%). The majority had completed education up to the intermediate level (grades 11-12) and were primipara (61.4%).

Table 3 shows the percentage distribution of the women's responses to the PCMC items by their subdomain. In the dignity and respect subdomain, the majority of women (66%) were treated with respect by healthcare providers at all times. While 61.4% of women were always treated in a friendly manner, 23.3% reported verbal abuse (12.6% once, 9.3% a few times, 1.4% many times). Physical abuse was reported by 1.9% (1.4% once, 0.5% a few times). More than half of the women (53%) experienced being always covered with a blanket or screen to maintain privacy during examinations in the labour room.

In the communication and autonomy subdomain, 36.7% of participants explained that healthcare providers never introduced themselves when they first interacted with them. However, more than three-fourths of women (77.2%) said they were always called by name and actively involved in their care. The maximum of the women (81.4%) said that consent or permission was taken all the time before doing any procedure or physical examinations, and 66.5% were given explanations all the time before undergoing procedures. In the supportive care subdomain, the majority (78.1%) of women received the treatment in a delay (just a little long: 40.9%, somewhat long: 29.3% and very long: 7.9% Also,78.6% of them had no birth companion present during delivery. Despite all these, 61.9% of women experienced that healthcare providers always gave them attention when needed and delivered the best possible care. Overall, 14.4% of participants described that the facility environment was not satisfactory, including 8.8% dirty and 5.6% very dirty.

Table 2: Frequency percentage distribution of background information of postnatal women (n=215).

Variables	Categories	Frequency	Percentage
Socio-demographic variables			
Age in years	≤20	18	8.4
	21-30	162	75.3
	>30	35	16.3
Residence	Rural	113	52.6
	Urban	102	47.4
Religion	Hindu	175	81.4
	Muslim	40	18.6
Education	No formal education (Illiterate)	6	2.8
	Primary school (grades 1-5)	13	6.0
	Middle school (grades 6-8)	18	8.4
	High school (grades 9-10)	30	14
	Intermediate (grades 11-12)	93	43.3
	Graduation and above (undergraduate, postgraduate, and higher education).	55	25.6
Occupation	Government employee	11	5.1
	Private employee	9	4.2
	Business	2	0.9
	Home maker	193	89.8
Monthly family income	Below Rs. 6500/-	33	15.3
	Rs. 6501-Rs. 20000/-	81	37.7
	Rs. 20001-Rs. 33500/-	60	27.9
	Above Rs. 33500/-	41	19.1
Obstetrics variables			
Parity	Primipara	132	61.4
	Multipara	83	38.6
Total ANC visit	<4 times	54	25.1
	≥4 times	161	74.9
Gestational age	<37 weeks	56	26
	≥37 weeks	159	74
Mode of delivery	Vaginal	101	47
	Cesarean	114	53
Outcome of present pregnancy	Living	215	100

Table 3: Frequency percentage distribution of women's responses to PCMC scale (n=215).

Questions	Responses	Frequency (%)
Dignity and respect sub-domain		
Did the health providers at the facility treat you with respect?	No, never	8 (3.7)
	Yes, a few times	19 (8.8)
	Yes, most of the time	46 (21.4)
	Yes, all the time	142 (66)
Did the doctors, nurses, and other staff at the facility treat you in a friendly manner?	No, never	6 (2.8)
	Yes, a few times	25 (11.6)
	Yes, most of the time	52 (24.2)
	Yes, all the time	132 (61.4)
Did you feel the doctors, nurses, or other health providers shouted at you, scolded, insulted, threatened, or talked to you rudely? *	No, never	165 (76.7)
	Yes, once	27 (12.6)
	Yes, a few times	20 (9.3)
	Yes, many times,	3 (1.4)
Did you feel like you were treated roughly like pushed, beaten, slapped, pinched, physically restrained, or gagged? *	No, never	211 (98.1)
	Yes, once	3 (1.4)
	Yes, a few times	1 (0.5)
During examinations in the labor room, were you covered up with a cloth or blanket or screened with a curtain so that you did not feel	No, never	48 (22.3)
	Yes, a few times	27 (12.6)

Continued.

Questions	Responses	Frequency (%)
exposed?	Yes, most of the time	26 (12.1)
	Yes, all the time	114 (53)
Do you feel like your health information was or will be kept confidential at this facility?	No, never	41 (19.1)
	Yes, a few times	4 (1.9)
	Yes, most of the time	40 (18.6)
	Yes, all the time	130 (60.5)
Communication and autonomy		
During your time in the health facility, did the doctors, nurses, or other health care providers introduce themselves to you when they first came to see you?	No, none of them	79 (36.7)
	Yes, a few of them	48 (22.3)
	Yes, most of them	30 (14)
	Yes, all of them	58 (27)
Did the doctors, nurses, or other health care providers call you by your name?	No, never	4 (1.9)
	Yes, a few times	10 (4.7)
	Yes, most of the time	35 (16.3)
	Yes, all the time	166 (77.2)
Did you feel like the doctors, nurses, or other staff at the facility involved you in decisions about your care?	No, never	6 (2.8)
	Yes, a few times	10 (4.7)
	Yes, most of the time	33 (15.3)
	Yes, all the time	166 (77.2)
Did the doctors, nurses, or other staff at the facility ask your permission or consent before doing procedures and examinations on you?	No, never	8 (3.7)
	Yes, a few times	11 (5.1)
	Yes, most of the time	21(9.8)
	Yes, all the time	175(81.4)
During the delivery, do you feel like you were able to be in the position of your choice?	No, never	26 (12.1)
	Yes, for a short time	55 (25.6)
	Yes, most of the time	51 (23.7)
	Yes, all the time	83 (38.6)
Did the doctors, nurses or other staff at the facility speak to you in a language you could understand?	No, never	5 (2.3)
	Yes, a few times	3 (1.4)
	Yes, most of the time	30 (14)
	Yes, all the time	177 (82.3)
Did the doctors and nurses explain to you why they were doing examinations or procedures on you?	No, never	12 (5.6)
	Yes, a few times	20 (9.3)
	Yes, most of the time	40 (18.6)
	Yes, all the time	143 (66.5)
Did the doctors and nurses explain to you why they were giving you any medicine?	No, never	15 (7)
	Yes, a few times	30 (14)
	Yes, most of the time	43 (20)
	Yes, all the time	127 (59.1)
Did you feel you could ask the doctors, nurses or other staff at the facility any questions you had?	No, never	5 (2.3)
	Yes, a few times	18 (8.4)
	Yes, most of the time	49 (22.8)
	Yes, all the time	143 (66.5)
Supportive care		
How did you feel about the amount of time you waited? Would you say it was very short, just a little long, somewhat long, or very long? *	Very short	47 (21.9)
	Just a little long	88 (40.9)
	Somewhat long	63 (29.3)
	Very long	17 (7.9)
Were you allowed to have someone you wanted (outside of staff at the facility, such as family or friends) to stay with you during labor?	No, never	115 (53.5)
	Yes, a few times	29 (13.5)
	Yes, most of the time	28 (13)
	Yes, all the time	43 (20)
Were you allowed to have someone you wanted to stay with you during delivery?	No, never	169 (78.6)
	Yes, a few times	26 (12.1)
	Yes, most of the time	9 (4.2)
	Yes, all the time	11 (5.1)
Did the doctors and nurses at the facility talk to you about how you	No, never	20 (9.3)

Continued.

Questions	Responses	Frequency (%)
were feeling?	Yes, a few times	45 (20.9)
	Yes, most of the time	51 (23.7)
	Yes, all the time	99 (46)
When you needed help, did you feel the doctors, nurses or other staff at the facility paid attention?	No, never	4 (1.9)
	Yes, a few times	15 (7)
	Yes, most of the time	63 (29.3)
	Yes, all the time	133 (61.9)
Did you feel the doctors, nurses or other staff at the facility took the best care of you?	No, never	1 (0.5)
	Yes, a few times	15 (7)
	Yes, most of the time	66 (30.7)
	Yes, all the time	133 (61.9)
Do you feel the doctors or nurses did everything they could to help control your pain?	No, never	4 (1.9)
	Yes, a few times	21 (9.8)
	Yes, most of the time	69 (32.1)
	Yes, all the time	121 (56.3)
Did you feel you could completely trust the doctors, nurses or other staff at the facility with regards to your care?	No, never	5 (2.3)
	Yes, a few times	6 (2.8)
	Yes, most of the time	46 (21.4)
	Yes, all the time	158 (73.5)
In general, did you feel safe in the health facility?	No, never	5 (2.3)
	Yes, a few times	5 (2.3)
	Yes, most of the time	35 (16.3)
	Yes, all the time	170 (79.1)
Do you think there was enough health staff in the facility to care for you?	No, never	5 (2.3)
	Yes, a few times	8 (3.7)
	Yes, most of the time	38 (17.7)
	Yes, all the time	164 (76.3)
Thinking about the wards, washrooms and the general environment of the health facility, will you say the facility was very clean, clean, dirty, or very dirty?	Very dirty	12 (5.6)
	Dirty	19 (8.8)
	Clean	130 (60.5)
	Very clean	54 (25.1)
Did the doctors, nurses or other staff at the facility ask you or your family for money other than the official cost? *	No, never	209 (97.2)
	Yes, a few times	1 (0.5)
	Yes, most of the time	4 (1.9)
	Yes, all the time	1 (0.5)

*Negatively framed question.

Table 4: Mean and SD value of overall PCMC score and subdomains.**

PCMC (n=215)	Mean	SD; min-max
Overall PCMC scale	76.25	11.69; 30.86-100
Dignity and respect	81.80	15.68; 27.78-100
Communication and autonomy	78.94	15.89; 11.11-100
Supportive care	71.44	13.14; 22.22-100

**The raw scores of the PCMC scale and its subdomains were rescaled to a 0-100 scale.

PCMC scale and subdomain scores were rescaled to 100 for comparison. The overall mean score was 76.25 (SD=11.69; range 30.86-100). Mean scores of the PCMC scale and each subdomain are presented in Table 4. The dignity and respect subdomain had the highest mean score (81.80) among the three PCMC subdomains. To measure prevalence, participants with a rescaled score more than or equal to the mean (≥76.25%) in the full PCMC scale were considered to have received adequate RMC most of the time, while scores below 76.25% indicated inadequate RMC, reflecting some form of disrespect or abuse. The prevalence of RMC and its subdomains is shown in Figure 1, which indicates that overall, 54% of women received adequate, respectful maternal care during their stay in the facility. Similarly, the prevalence of each subdomain was calculated using its respective mean value, in which 57.2% of participants received adequate care in the dignity and respect domain and 53% in the supportive care domain. In Table 5, the association between RMC and background information was analyzed using the Chi-square test. Among the socio-demographic variables, only religion showed a statistically significant association with RMC (level of significance $p<0.05$, degree of freedom, df=1) with a 95% confidence interval. No significant associations were found between any of the obstetric variables and RMC.

Table 5: Association between background information and RMC by chi-square test.

Variables	Categories	RMC		Df	P value
		Adequate (%)	Inadequate (%)		
Socio-demographic variables					
Age in years	≤20	9 (50)	9 (50)	2	0.94
	21-30	88 (54.3)	74 (45.7)		
	>30	19 (54.3)	16 (45.7)		
Residence	Rural	59 (52.2)	54 (47.8)	1	0.59
	Urban	57 (55.9)	45 (44.1)		
Religion	Hindu	102(58.3)	73(41.7)	1	0.008*
	Muslim	14(35)	26(65)		
Education	No formal education (Illiterate)	4 (66.7)	2(33.3)	5	0.19
	Primary school (grades 1-5)	4 (30.8)	9(69.2)		
	Middle school (grades 6-8),	6(33.3)	12(66.7)		
	High school (grades 9-10),	17 (56.7)	13(43.3)		
	Intermediate (grades 11-12),	55 (59.1)	38(40.9)		
	Graduation and above (undergraduate, postgraduate, and higher education)	30 (54.5)	25(45.5)		
Occupation	Government employee	7 (63.6)	4 (36.4)	3	0.69
	Private employee	5 (55.6)	4 (44.4)		
	Business	2 (100)	0 (0)		
	Home maker	102 (52.8)	47.2)		
Monthly family income	Below Rs. 6500/-	22(66.7)	11(33.3)	3	0 .09
	Rs. 6501 - Rs. 20000/-	47(58)	34(42)		
	Rs. 20001- Rs. 33500/-	25(41.7)	35(58.3)		
	Above Rs. 33500/-	22(53.7)	19(46.3)		
Obstetrics variables					
Parity	Primipara	73(54.9)	60(45.1)	1	0.72
	Multipara	43(52.4)	39(47.6)		
Total ANC visit	<4 times	32(59.3)	22(40.7)	1	0.43
	≥4 times	83(51.9)	77(48.1)		
Gestational age	<37 weeks	30(53.6)	26(46.4)	1	0.94
	≥37 weeks	86(54.1)	73(45.9)		
Mode of delivery	Vaginal	57(56.4)	44(43.6)	1	0.49
	Cesarean	59(51.8)	55(48.2)		

*P<0.05. Women with scores equal to or above the mean of the rescaled full PCMC score were categorised as having received adequate RMC, while those with scores below the mean were considered to have received inadequate RMC.

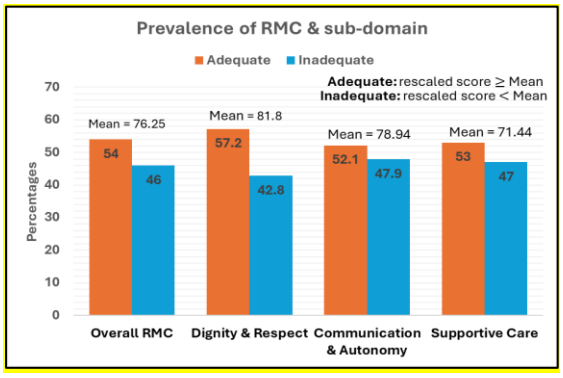

Figure 1: Prevalence of overall RMC and subdomains (PCMC scale).

Women scoring equal to or above the mean score of the rescaled full PCMC score and its subdomain were categorized as receiving adequate RMC, while those scoring below the respective mean were considered as receiving inadequate RMC.

DISCUSSION

Safe, respectful, and good-quality maternal health care services play a key role in reducing maternal morbidity and mortality globally. Facility-based childbirth has increased in India due to government incentives and programs. However, current research highlights concerning experiences reported by women during pregnancy, especially during childbirth. This study found that only 54% of participants received adequate RMC during their stay at the health settings, indicating that nearly half of the women (46%) did not experience optimal care. These values also vary for different regions of India, which are socio-economically distinct, in the range of 16.3% in the northern region to 73.7% in the central region may be due to differences in study settings and influencing factors.[11,33,34] A systematic review in India also reported prevalence rates of disrespect ranging from 20.9% to 100% 35. Evidence is also similar for the

economically weak countries like Pakistan, Kenya, and Ghana, using the same PCMC scale.[25,27] Globally, the prevalence of disrespect and abuse during childbirth varies widely, from 15% to 98%.[20,36-38] The mean PCMC score varies widely in different studies globally.[27-32] A global review reported the mean scores of 75 in Africa, 60-90 in Asia, and above 80 in North America, with the lowest score of 38.2/100 in Sierra Leone.[26] For rural India, this score is 60% which is close to our study (76.25%) conducted in urban areas.[34] In all these cases, Communication and autonomy consistently emerged as the lowest-scoring domain; for example, Ethiopia reports just 18.1/100 in comparison to our study findings of 11.11/100.[26] The highest prevalence of adequate RMC occurred in the dignity and respect subdomain, followed by the supportive care domain. This scenario is also observed in different studies inside India, based on different states, indicating good compassion towards pregnant women.[33] Also, it shows the highest value for the global studies.[27,28,31,39] The abuse was in the form of physical (pushed, beaten, slapped, pinched, physically restrained, or gagged) and verbal (shouted, scolded, insulted, threatened, or talked rudely). In our case, 23.3% of women reported verbal abuse and 1.9% reported physical abuse, which is lower than findings from Colombo, Sri Lanka (28.5% verbal, 14.8% physical)and Pakistan (36% physical, 22% verbal).[27,29] In this context, Ethiopia and Kenya showed a lower percentage compared to India.[28-31] In the communication and autonomy subdomain, lack of a health care provider's introduction upon first contact, consent, and explanation before examination or procedure contributed substantially to lower RMC scores. In the supportive care domain, a delay in receiving treatment, not permitted birth companions during delivery, absence of emotional support, and poor facility environments are key contributors to inadequate RMC in India and similar settings globally.[27,28,30,31,33,40]

This study found a statistically significant association between religion and RMC, with a Pearson Chi-square value of 0.008 at 1 degree of freedom and a 95% confidence interval ($p<0.05$). Another study from India also reported a similar association, reflecting the influence of religious diversity on experiences of disrespect.[40] In contrast, this association was not significant in a less diverse context, such as Pakistan.[27] This association needs to be studied in more detail in diverse religious countries like India and other continents.[41] A study from Ethiopia reported significant associations between RMC and factors such as maternal age, occupation, and antenatal follow-up.[42] However, our findings showed no significant association between RMC and other socio-demographic or obstetric variables.

This study's strength includes the use of a validated PCMC-India scale, interviews conducted before discharge from the hospital to minimize recall bias, and a single trained, independent investigator with a structured tool, strengthening data quality. Conducted in a tertiary care centre of a region with a lack of research on RMC, adds another important contextual evidence. However, limitations include possible underreporting of data due to fear of disclosing mistreatment in the hospital setting, poor response due to fatigue and tiredness in the early postnatal period, a single-centre study, and a small sample size for generalization of study findings. Another limitation of this study is that it was conducted in a tertiary care hospital, which handles complicated deliveries and referrals, so the findings may not reflect lower-level facilities and could have influenced women's experiences, and this should be explored in future studies.

CONCLUSION

The study found that the prevalence of respectful maternal care (RMC) was 54%. Among the subdomains of RMC, the most lacking area was communication and autonomy, followed by supportive care. Although the incidence of abuse was relatively low, there was a gap in positive interactions between healthcare providers and patients. Key issues included a lack of privacy during examinations, limited choices in birthing positions, the absence of preferred companions during delivery, and long waiting times for treatment. These shortcomings highlight significant gaps in the healthcare delivery system and call for training maternity staff, especially in good communication skills, promoting birth companionship, and providing supportive care. Positive childbirth experiences can increase the use of public maternal healthcare services. Therefore, more research is needed to explore factors associated with poor patient-provider interactions in healthcare settings to enhance RMC and encourage women to give birth in facilities.

ACKNOWLEDGEMENTS

Authors thank Dr. Ashok Kumar for his valuable input on the statistical analysis. We also express our gratitude to the participants for their active involvement in this study.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: The study was approved by the Institutional Ethics Committee Ref. no AIIMS/Pat/IEC/1375 dated 30.12.2024

REFERENCES

1. WHO, UNICEF, UNFPA, World Bank Group and the United Nations Population Division. Trends in Maternal Mortality 2000-2020. United Nations Population Fund. 2023. Available from: https://www.unfpa.org/publications/trends-maternal-mortality-2000-2020. Accessed on 17 September 2025.
2. Ministry of Public Health. Respectful maternity care orientation package for Health Care Providers. Available from: https://platform.who.int/docs/default-source/mca-documents/policy-documents/operational-guidance/afg-mn-32-01-

operationalguidance-2017-eng-523476805-respectful-maternity-care-providers.pdf. Accessed on 16 February 2025.
3. White Ribbon Alliance's Respectful Maternity Care (RMC) Charter. Available from: https://whiteribbonalliance.org/wp-content/uploads/2022/05/WRA_RMC_Charter_FINAL.pdf. Accessed on 16 February 2025.
4. Shakibazadeh E, Namadian M, Bohren M, Vogel J, Rashidian A, Nogueira Pileggi V, et al. Respectful care during childbirth in health facilities globally: a qualitative evidence synthesis. BJOG Int J Obstet Gynecol. 2018;125(8):932-42.
5. Sando D, Ratcliffe H, McDonald K, Spiegelman D, Lyatuu G, Mwanyika-Sando M, et al. The prevalence of disrespect and abuse during facility-based childbirth in urban Tanzania. BMC Pregnancy Childbirth. 2016;16(1):236.
6. Montesinos-Segura R, Urrunaga-Pastor D, Mendoza-Chuctaya G, Taype-Rondan A, Helguero-Santin LM, Martinez-Ninanqui FW, et al. Disrespect and abuse during childbirth in fourteen hospitals in nine cities of Peru. Int J Gynaecol Obstet. 2018;140(2):184-90.
7. Okafor II, Ugwu EO, Obi SN. Disrespect and abuse during facility-based childbirth in a low-income country. Int J Gynecol Obstet. 2015;128(2):110-3.
8. World Health Organization. New evidence shows significant mistreatment of women during childbirth. 2019. Available from: https://www.who.int/news/item/09-10-2019-new-evidence-shows-significant-mistreatment-of-women-during-childbirth. Accessed on 3 May 2025.
9. Labour Room Quality Improvement Initiative (LaQshya): National Health Mission. Available from: https://nhm.gov.in/index1.php?lang=1&level=3&sublinkid=1307&lid=690. Accessed on 16 February 2025.
10. Raval H, Puwar T, Patel N, Pandya A, Rana A, Koria BD. Women's experiences with maternity care in public and private healthcare facilities in western India: a community-based cross-sectional study. Cureus. 2025;17(4).
11. Sikdar S, Saha R, Naskar S, Chakrabarti S, Chakrabarti S, Basu M. Respectful maternity care (RMC) during Facility-based childbirth: a cross-sectional study among postnatal mothers in a tertiary health care facility in Kolkata. Med J Dr Patil Vidyapeeth. 2024;17(Suppl 1):S76.
12. Yadav A, Singh TB, Sachan S. Prevalence of disrespect and abuse and its determinants during delivery in rural Uttar Pradesh India. Int J Community Med Public Health. 2022;9(7):2859-67.
13. Brown A, Jordan S. Impact of birth complications on breastfeeding duration: an internet survey. J Adv Nurs. 2013;69(4):828-39.
14. Schroll AM, Kjærgaard H, Midtgaard J. Encountering abuse in health care; lifetime experiences in postnatal women- a qualitative study. BMC Pregnancy Childbirth. 2013;13(1):74.
15. Sadat Z, Abedzadeh-Kalahroudi M, Kafaei Atrian M, Karimian Z, Sooki Z. The impact of postpartum depression on quality of life in women after child's birth. Iran Red Crescent Med J. 2014;16(2):e14995.
16. Çankaya S, Can R. The effect of continuous supportive care on birth pain, birth fear, midwifery care perception, oxytocin use, and delivery time during the intrapartum period: an experimental study. Niger J Clin Pract. 2021;24(11):1624.
17. Das D, Kaur G. Various birthing positions and their effects on fetomaternal outcome during labour: a comprehensive review. Int J Reprod Contracept Obstet Gynecol. 2025;14(3):997-1004.
18. Azami-Aghdash SS, Ghojazadeh MM, Dehdilani NN, Mohammadi MM, Asl Amin Abad RR. Prevalence and causes of cesarean section in Iran: systematic review and meta-analysis. Iran J Public Health. 2014;43(5):545-55.
19. Waldenström U, Schytt E. A longitudinal study of women's memory of labour pain- from 2 months to 5 years after the birth. BJOG Int J Obstet Gynaecol. 2009;116(4):577-83.
20. Hajizadeh K, Vaezi M, Meedya S, Mohammad Alizadeh Charandabi S, Mirghafourvand M. Respectful maternity care and its relationship with childbirth experience in Iranian women: a prospective cohort study. BMC Pregnancy Childbirth. 2020;20(1):468.
21. International Institute for Population Sciences (IIPS) and ICF.2017. Available from: https://www.dhsprogram.com/pubs/pdf/FR338/FR338.BR.pdf. Accessed on 8 September 2025.
22. Mayra K, Sandall J, Matthews Z, Padmadas SS. Breaking the silence about obstetric violence: body mapping women's narratives of respect, disrespect and abuse during childbirth in Bihar, India. BMC Pregnancy Childbirth. 2022;22(1):318.
23. Poudel S, Kc D, Shrestha S. Perceived experience of respectful maternity care among mothers attending a selected teaching hospital of Kaski district. J Gandaki Med Coll-Nepal. 2022;15(1):1.
24. Afulani PA, Diamond-Smith N, Phillips B, Singhal S, Sudhinaraset M. Validation of the person-centered maternity care scale in India. Reprod Health. 2018;15(1):147.
25. Afulani PA, Phillips B, Aborigo RA, Moyer CA. Person-centred maternity care in low-income and middle-income countries: analysis of data from Kenya, Ghana, and India. Lancet Glob Health. 2019;7(1):e96-109.
26. Odiase OJ, Smith K, Ogunfunmi G, Afulani PA. Assessment of the person-centered maternity care scale: a global systematic review. eClinicalMedicine. 2025;82.
27. Hameed S, Mureed S, Chaudhri R, Khan SA, Khan MS. Postnatal women's perception on person-centered maternity care in twin cities of Rawalpindi and Islamabad: a descriptive study. BMC Pregnancy Childbirth. 2023;23(1):52.

28. Tarekegne AA, Giru BW, Mekonnen B. Person-centered maternity care during childbirth and associated factors at selected public hospitals in Addis Ababa, Ethiopia, 2021: a cross-sectional study. Reprod Health. 2022;19(1):199.
29. Kabale WD, Bekele GG, Gonfa DN, Yami AT. Person-centered maternity care during childbirth and associated factors at public hospitals in central Ethiopia. SAGE Open Med. 2024;12:20503121241257790.
30. Oluoch-Aridi J, Afulani P, Makanga C, Guzman D, Miller-Graff L. Examining person-centered maternity care in a peri-urban setting in Embakasi, Nairobi, Kenya. PloS One. 2021;16(10):e0257542.
31. Alelign YA, Melesse MF, Beka E, Alemu AA, Ejigu Meskele N, Asres CG. Person-centered maternity care during childbirth and associated factors among mothers who gave birth at public health institutions of Debre Markos town, Northwest Ethiopia, 2022: a cross-sectional study. SAGE Open Med. 2024;12:20503121231225352.
32. Kassa ZY, Dadi AF, Bizuayehu HM, Hassen TA, Ahmed KY, Ketema DB, et al. Person-centred maternity care during childbirth: a systematic review in low and middle-income countries. BMC Pregnancy Childbirth. 2025;25(1):147.
33. Kaur R, Singh T, Kalaivani M, Yadav K, Gupta SK, Kant S. Respectful maternity care during childbirth among women in a rural area of northern India. Indian J Community Med. 2025;50(1):93.
34. Athira C, Majumdar A, Sutar RF, Singh B, Thampy P, Rupani A, et al. Exploring respectful maternity care and its determinants: a mixed methods cross-sectional study from a rural area in central India. BMC Pregnancy Childbirth. 2025;25(1):869.
35. Ansari H, Yeravdekar R. Respectful maternity care during childbirth in India: a systematic review and meta-analysis. J Postgrad Med. 2020;66(3):133.
36. Ansari H, Yeravdekar R. Respectful maternity care: a national landscape review. Natl Med J India. 2019;32(5):290.
37. Azhar Z, Oyebode O, Masud H. Disrespect and abuse during childbirth in district Gujrat, Pakistan: A quest for respectful maternity care. PloS One. 2018;13(7):e0200318.
38. Bowser D, Hill K. Exploring evidence for disrespect and abuse in facility-based childbirth: report of a landscape analysis. Brandeis University. 2010
39. Rishard M, Fahmy FF, Senanayake H, Ranaweera AKP, Armocida B, Mariani I, et al. Correlation among experience of person-centered maternity care, provision of care and women's satisfaction: Cross sectional study in Colombo, Sri Lanka. PloS One. 2021;16(4):e0249265.
40. Rithughosh KP, Pillai S. Perception regarding respectful maternity care among postnatal mothers. Manipal J Nurs Health Sci. 2023;9(1).
41. Kachoria AG, Mubarak MY, Singh AK, Somers R, Shah S, Wagner AL. The association of religion with maternal and child health outcomes in South Asian countries. PloS One. 2022;17(7):e0271165.
42. Adugna A, Kindie K, Abebe GF. Respectful maternity care and associated factors among mothers who gave birth in three hospitals of Southwest Ethiopia: a cross-sectional study. Front Public Health. 2023;10:1055898.

Cite this article as: Das D, Koteswaramma D. A cross-sectional study on the prevalence of respectful maternal care among postnatal women during facility-based childbirth in a tertiary care centre in Bihar, India. Int J Community Med Public Health 2026;13:3757-67.