

Respectful Maternity Care among Nursing Officers: A Cross-Sectional Study of Knowledge and Practices in West Bengal

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Abstract

Background: Respectful maternity care (RMC) is an essential component of quality maternal healthcare and women's rights. Nursing officers play an important role in translating RMC principles into routine maternity care.

Objectives: The study assessed knowledge and practices regarding RMC among nursing officers and examined their relationships with selected professional characteristics.

Methods: A quantitative, descriptive cross-sectional study was conducted among 200 nursing officers in selected maternal hubs of West Bengal. Data were analysed using descriptive statistics, chi-square tests, Pearson correlation, and the Mann-Whitney U test, with $p < 0.05$ considered statistically significant.

Results: Mean knowledge and practice scores were 15.64 ± 3.43 , 74.67 ± 12.23 , and 16.32 ± 3.66 , respectively. Good practice was observed among 72.0% of participants. Practice level was associated with specialized RMC training ($\chi^2 = 11.015$, $p = .004$). Knowledge correlated positively with attitude ($r = .364$, $p < .001$).

Conclusion: Targeted RMC training and supportive strategies may strengthen consistent RMC practices.

Keywords: *Respectful maternity care; Nursing officers; Knowledge; Attitude; Practice; Maternal health*

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Background

Maternal health encompasses women's physical, psychological, and social well-being throughout pregnancy, childbirth, and the postpartum period [1]. RMC is an essential component of quality maternal healthcare and is grounded in dignity, autonomy, equity, informed choice, privacy, confidentiality, and freedom from harm and mistreatment [2]. Disrespect and abuse during childbirth remain global concerns and may include verbal or physical abuse, discrimination, inadequate privacy, non-consensual procedures, denial of information, neglect, and restrictions on women's autonomy [3]. Such experiences can adversely affect women's childbirth experiences and their perceptions of maternity services.

Healthcare providers play a critical role in translating RMC principles into clinical practice [4]. Nursing officers, through their continuous contact with women during maternity care, influence communication, emotional support, privacy, informed decision-making, and respectful treatment. Evidence indicates that providers' knowledge, attitudes, workplace conditions, and organizational support can affect implementation of respectful care [5], [6], [7]. Similarly, there has been evidence from studies on nurses and midwives regarding knowledge-practice gaps, emphasizing the significance of education, mentoring, and professional development.

In India, healthcare professionals' perspectives and implementation of RMC have received increasing attention, but evidence focusing specifically on nursing officers remains limited [8], [9], [10]. Research from West Bengal has also highlighted the importance of increasing awareness regarding RMC among women. Despite growing recognition of RMC, limited evidence exists regarding nursing officers' knowledge and practices within maternal hubs in West Bengal. Therefore, the present study assessed knowledge and practices regarding RMC among nursing officers in selected maternal hubs of West Bengal and examined associations between these domains and selected demographic and professional characteristics.

1. Aim and Objectives

The aim of this research is to assess the knowledge and practice regarding RMC among nursing officers working in selected maternal hubs of West Bengal and to identify factors associated with these domains.

- To find out the socio-demographic information about the nursing officers.
- To assess the current knowledge regarding Respectful maternity care among nursing officers in the maternal hub.
- To assess the current practice regarding RMC among nursing officers in the maternal hub.
- To find out the association between level of knowledge and selected demographic

variables regarding RMC among nursing officers working in maternal hub.

2. Research Questions

The present study attempts to answer the following research questions:

- What is the level of knowledge and practice regarding RMC among nursing officers working in selected maternal hubs of West Bengal?
- Is there a significant association between selected socio-demographic and professional characteristics of nursing officers and their knowledge and practice regarding RMC?
- Is there a significant relationship between knowledge and practice regarding RMC among nursing officers?

3. Review of Literature

RMC has evolved from a rights-based concept into a central component of quality maternal healthcare. [15] [16] emphasized that RMC encompasses dignity, respect, privacy, confidentiality, informed consent, freedom from harm, equitable treatment, and supportive care during labour and childbirth. Through a systematic scoping review, [17] has found that there are seven essential rights that underlie the RMC at the provider level. They have pointed out the need to operationalize these rights into observable behaviors of the healthcare providers. In the same manner, [18] stressed the need for standardized measures to monitor RMC, whereas [19] has shown that mistreatment is still a serious quality of care issue in many countries across the world.

There is also evidence by healthcare providers on how knowledge and attitude can affect RMC. [20] evaluated the knowledge and practice of RMC among midwives and emphasized the significance of readiness of the provider in providing respectful care. [14] conducted a descriptive survey involving 69 nurses in Bengaluru and found out that 65.5% of them have moderately adequate knowledge about RMC, with a mean knowledge score of 64.30%. [13] studying doctors and nurses in a teaching hospital in Kolkata, found that providers reported desirable RMC practices for most areas, although limitations remained regarding birth companionship and women's choice of birth position; training status was significantly associated with RMC practices. These findings suggest that professional preparation and institutional training are important determinants of respectful care.

Systematic review of the effects of education interventions to determine whether such interventions enhance health care professionals' knowledge, attitudes, communications skills, and respectful care competence, yet there is inadequate evidence on the

continued implementation of such interventions. [11] [12] Also observed that midwives encountered difficulties in implementing RMC training in practice. [22] conceptualized maternity care as a complex adaptive system, emphasizing that staffing, infrastructure, organizational culture, provider relationships, and institutional policies can influence respectful care. [23] further identified organizational factors as important influences on healthcare-provider behaviour in low- and middle-income countries.

Indian evidence indicates persistent challenges in translating RMC principles into clinical practice. [30] studying intrapartum RMC in Eastern India, identified inadequate resources, staff shortages, heavy workload, communication problems, privacy limitations, absence of written policies, and language barriers as important barriers. [20] using direct observation in public healthcare facilities in Gujarat, demonstrated the value of observing provider practices rather than relying exclusively on women's perceptions. In West Bengal, [23] reported continuing gaps in RMC among postnatal women in a tertiary healthcare facility in Kolkata. [19]'s systematic review and meta-analysis further documented the persistence of disrespect and abuse during childbirth in India.

4. Research Gap

Overall, the literature demonstrates considerable evidence regarding women's experiences, and increasing evidence concerning healthcare-provider perspectives; however, a specific empirical gap remains regarding comprehensive assessment of knowledge objectively observed practices among nursing officers working in maternal hubs of West Bengal.

Existing Indian studies are frequently limited to women, single facilities, specific provider groups, or knowledge assessment alone. Few studies simultaneously examine nursing officers' knowledge and practices and relate these domains to demographic or professional characteristics. The present study therefore addresses this gap by assessing these domains among nursing officers working in selected maternal hubs of West Bengal, thereby generating provider-focused evidence for targeted education, supportive supervision, and quality-improvement strategies for RMC.

5. Methodology

5.1. Study Design

A quantitative research approach was adopted to assess the knowledge and practices of nursing officers regarding RMC. A non-experimental, descriptive cross-sectional research design was used, as the study assessed the selected variables at a single point in time without manipulation or intervention.

This design was considered appropriate for describing the existing levels of knowledge and practices regarding RMC among nursing officers working in selected maternal healthcare facilities.

5.2. Study Setting

The study was conducted in selected maternal healthcare facilities in West Bengal, India. The study settings included Medical College and Hospital; Chanchal Sub-Divisional Hospital; Gazole State General Hospital subject to confirmation with the final institutional records. These facilities represented different levels of maternal healthcare delivery and included settings providing antenatal, intrapartum, postnatal, and related maternity services. Nursing officers working in maternity-related clinical areas, including antenatal wards, labour rooms, postnatal wards, postoperative wards, and Gynae OT where applicable to the approved sampling frame, were considered for participation. The selected facilities provided an appropriate setting for examining provider-level implementation of RMC.

5.3. Study Population

The study population comprised nursing officers working in maternity-related clinical areas of the selected hospitals and healthcare facilities in West Bengal. The population included nursing officers who were directly involved in the care and management of women during the antenatal, intrapartum, and postnatal periods and who fulfilled the predetermined eligibility criteria.

5.4. Sample Size

The sample consisted of eligible nursing officers who were available during the period of data collection and fulfilled the inclusion criteria. A total of 200 participants were included in the final analysis. Where all eligible nursing officers available during the specified data-collection period were invited to participate, this procedure was considered total enumeration or consecutive inclusion rather than a conventionally calculated sample-size procedure. The final manuscript should report the actual recruitment flow, including the number eligible, approached, consented, completed, and analyzed.

5.5. Sampling Technique

A non-probability sampling procedure was used for participant selection. Nursing officers who fulfilled the predefined eligibility criteria and were available during the data-collection period were approached for participation. If all eligible nursing officers available during the study period were invited, the procedure is appropriately described as total enumeration/consecutive inclusion. If participants were specifically selected according to predetermined characteristics or departmental requirements, purposive sampling should be reported. The final

terminology should correspond exactly to the procedure followed during actual data collection.

5.6. Inclusion and Exclusion Criteria

Nursing officers were eligible for inclusion if they were working in the specified maternity-related clinical areas of the selected facilities, were willing to participate, provided informed consent, and were available during the period of data collection. Nursing officers working exclusively outside the identified maternal healthcare areas were excluded. Nursing officers who were on long leave or unavailable during the data-collection period were also excluded. Any additional exclusion criterion was applied only if it had been specified in the approved study protocol and followed during recruitment.

5.7. Study Variables

The primary study variables were knowledge regarding RMC and practice of RMC among nursing officers. Background variables included the demographic and professional characteristics collected through the study instrument. These variables were used to describe the study participants and, where applicable, examine their relationship with the knowledge and practice domains.

5.8. Data Collection Instruments

Tool I: Knowledge Questionnaire

A structured knowledge questionnaire was used to assess nursing officers' knowledge regarding RMC. The questions were related to RMC, including its principles and practice of offering women dignified care. The questionnaire was presented using an objective response method, where marking is done depending on the correctness of the answers given by the respondents. Correct responses were awarded scores according to the predetermined scoring key, while incorrect responses received no score. The total knowledge score was used to classify participants according to the established categories of knowledge in the finalized instrument.

Tool II: Observational Practice Checklist

Twenty (20) items were developed to assess the practice regarding respectful maternity care. All items were checklist the maximum score for each item is (1) and minimum possible score for each item is (0). The overall practice score will be categorised as adequate practice and inadequate practice. practice score > 15 score will adequate practice and < 15 will inadequate practice.

5.9. Validity and Reliability

The study instruments were subjected to validity assessment before their use in the research. The instruments were reviewed by experts in relevant areas to assess the appropriateness, relevance, clarity, comprehensiveness, and suitability of the items for measuring knowledge, attitude, and RMC practices

among nursing officers. The expert review also considered the content and wording of the instruments. Modifications recommended during the validation process were incorporated before finalization of the research instruments. The Institutional Ethics Committee of Malda Medical College specifically approved the research instruments as part of the ethical review. The available records provided do not contain the calculated reliability coefficients or the specific reliability method used for each instrument. Therefore, Cronbach's alpha, test-retest, split-half, and inter-rater reliability values are not reported here to avoid introducing unsupported numerical results.

5.10. Pilot Study

The research instruments were pretested before the main data collection to assess their clarity, comprehensibility, feasibility, and suitability for the study population. The pretesting process helped assess the practicality of administering the questionnaires and observing RMC practices in the clinical setting. Necessary modifications to the instruments and data-collection procedure were made before their final use. The available documents do not specify the pilot sample size or site; therefore, these details are not stated without verification from the researcher's study records.

5.11. Data Collection Procedure

Data collection was conducted after obtaining ethical approval and the required administrative permissions from the concerned authorities. Ethical approval was obtained from the Institutional Ethics Committee of Malda Medical College, Malda, under reference number P/MLD-MC/IEC-24/23, following the meeting held on 14 June 2024. Administrative permission was subsequently obtained from the concerned authorities. The Chief Medical Officer of Health, Malda, permitted the study among nursing officers working in the maternal hub at Chanchal S.S.H. Malda district. Permission was also obtained from Chanchal S.S.H. Hospital and Gazole State General Hospital. Eligible nursing officers were identified and approached by the researcher. After explanation of the study, written informed consent was obtained. Participants completed the sociodemographic, knowledge, and attitude instruments, followed by direct observation of RMC practices using the 20-item observational checklist. Completed tools were checked for completeness, coded, and kept confidential.

5.12. Ethical Considerations

Ethical approval was obtained from the Institutional Ethics Committee of Malda Medical College, Malda, under reference number P/MLD-MC/IEC-24/23, following the meeting held on 14 June 2024. Ethical

approval from the Institutional Research Ethics Committee of Manipur International University was also obtained under memo number MIU/PhD-Sum (22)/2024/004 dated 6 March 2024. Administrative approval was obtained from the concerned agencies, including the Chief Medical Officer of Health, Malda, and all hospitals involved. All participants gave informed written consent, and participated on voluntary basis. Participants could withdraw at any stage during the process. Anonymity was maintained and the data was used for academic purposes only. The data was processed safely, and the entire process did not harm any of the subjects intentionally.

7. Statistical Analysis

Statistical analysis was done using IBM SPSS Statistics. Frequency, percentage, mean, median, minimum, maximum, and standard deviation were utilized as descriptive statistics for describing the participants' characteristics and knowledge attitude practices score. Chi-square test was utilized to investigate relationships between categorical variables such as knowledge and practice scores and professional characteristics. Pearson correlation was used to assess relationships among continuous knowledge and practice scores. The Mann-Whitney U test was used to compare knowledge scores between nursing officers according to specialized RMC training status. Missing observations were treated as user-defined missing values and excluded from the respective analyses.

6. Results

6.1. Dataset Overview

The dataset included responses from 200 nursing officers using a structured questionnaire assessing knowledge and practice and selected sociodemographic and professional characteristics related to RMC.

6.2. Classification of Knowledge and Practice Levels

Composite scores were categorized into three levels for analysis. Knowledge was classified as poor (≤ 9), moderate (10–15), and good (≥ 16). Practice was classified as poor (≤ 26), moderate (27–53), and good (≥ 54).

6.3. Frequency and Descriptive Statistics of Nursing Officers

6.3.1. Knowledge Regarding RMC

The mean knowledge score among 200 nursing officers was 15.64 ± 3.43 , ranging from 7 to 20, indicating generally favourable knowledge regarding RMC. The mean knowledge-level score was 2.52 ± 0.56 , with values ranging from 1 to 3, suggesting that participants were predominantly concentrated towards the higher knowledge category.

Table 1: Statistics for Knowledge Level

Variable	N	Minimum	Maximum	Mean	Standard Deviation
Knowledge Level	200	1.00	3.00	2.52	0.56

6.4. Association of Practice Level with Professional Characteristics

6.4.1. Practice Level and Specialized RMC Training

Among the 197 nursing officers with complete data, good practice was reported by 72.5% of those who had received specialized RMC training and 70.5% of those without training. Moderate practice was more frequent among the non-trained group (29.5%), whereas poor practice occurred among 13.7% of trained participants. A significant association was found between training and practice ($\chi^2=11.015$, $df=2$, $p=.004$) using the Pearson chi. These findings suggest that specialized RMC training may be an important professional factor associated with practice patterns.

6.4.2. Practice Level and Clinical Experience

RMC practice was distributed across all categories of clinical experience, with good practice predominating within each group. Among participants demonstrating good practice, 36.4% had 2–5 years of experience and 30.8% had 6–9 years. The Pearson chi-square analysis produced $\chi^2=10.199$ ($df=6$, $p=.117$), indicating limited evidence of differences in practice according to clinical experience. The findings suggest that length of professional experience may not independently determine RMC practice, whereas structured professional development and training may have greater practical relevance.

6.4.3. Knowledge Level and Gynaecological Experience

RMC knowledge was broadly comparable across obstetric and gynaecological experience groups. The 2–5-year category predominated across all knowledge levels, but no consistent increase in knowledge was observed with greater experience. The chi-square analysis ($\chi^2=2.146$, $df=6$, $p=.906$) further supports the absence of a clear pattern.

6.5. Knowledge Score and Specialized RMC Training

The Mann-Whitney U test compared continuous knowledge scores between nursing officers according to specialized RMC training status. The analysis included participants with valid training and knowledge data. The obtained U value was 3305.50, with $Z = -0.183$ and $p = .855$. The findings indicate that knowledge-score distributions were highly similar between the two training groups. Thus, specialized RMC training status did not appear to

produce substantial differences in overall knowledge scores in this sample. Knowledge can be shaped by wider factors such as professional education, practical experience, continuing education, and on-the-job learning. These findings provide additional insight into factors associated with RMC knowledge.

Table 2: Mann-Whitney U Test for Knowledge Score

Test Statistic	Value
Mann-Whitney U	3305.50
Z	-0.183
p-value	.855
N	200

9. Discussion

Principal Findings

The present study assessed knowledge, attitude, and practice regarding RMC among 200 nursing officers. The findings showed generally favourable knowledge and attitude, with mean scores of 15.64 ± 3.43 and 74.67 ± 12.23 , respectively. Good RMC practice was demonstrated by 72.0% of participants, while 17.5% had moderate and 10.5% had poor practice. Although the overall pattern was favourable, the variation in practice indicates that positive provider characteristics may not always translate into consistent respectful care.

Knowledge and Professional Characteristics

Knowledge level showed no clear association with clinical experience, professional qualification, or obstetric and gynaecological experience. The Mann-Whitney U analysis also found similar knowledge-score distributions according to specialized RMC training ($U=3305.50$, $Z=0.183$, $p=.855$). This implies that there might be a number of determinants of RMC knowledge instead of professional practice or training per se. [29] Emphasis on variability of RMC knowledge, attitudes, and practice among healthcare professionals. [21] Further demonstrated that RMC training can improve provider knowledge and skills, although continued reinforcement may be required to sustain learning in routine maternity care.

Training and Clinical Experience

Practice level was associated with specialized RMC training ($\chi^2=11.015$, $df=2$, $p=.004$), whereas clinical experience was not associated with practice level ($\chi^2=10.199$, $df=6$, $p=.117$). This finding underscores the possible benefits that come from professional development versus depending only on experience in the field. [25] Emphasized the importance of provider knowledge and practice in RMC, while [28] supported continuing nursing education as an approach for strengthening professional knowledge and quality of practice. However, the cross-sectional design does not establish a causal effect of training.

Implications for RMC

The findings support a comprehensive approach to strengthening RMC among nursing officers. Educational interventions should emphasize practical application of dignity, privacy, communication, informed consent, emotional support, and woman-centred care. [24] Identified organizational and interpersonal barriers that can affect respectful care implementation. Similarly, [27] highlighted the importance of organizational conditions in shaping provider behaviour. Therefore, continuing education should be complemented by supportive supervision, mentoring, institutional monitoring, and quality-improvement strategies. Direct assessment of practice, as demonstrated by [26], can further help identify gaps between provider knowledge, attitudes, and actual RMC delivery.

10. Conclusion

This study revealed a generally positive knowledge and practice regarding RMC among nursing officers. Good practice was demonstrated by most respondents, and there was a highly significant positive correlation between attitude and practice and also a moderate positive correlation between knowledge and attitude. Knowledge in itself was poorly correlated with practice, indicating that even when knowledge is favorable, it might not necessarily be translated into practice. There was a statistically significant correlation between specialized RMC training and practice but not for experience and other professional characteristics in relation to knowledge and practice.

11. Recommendations

Practice in nursing: Nurses need to use dignity, respect for privacy, good communication, informed choice, emotional support, and respectful behaviour in their day-to-day practice with women during childbirth.

Education in nursing: RMC principles must be included in pre-registration, post-registration, orientation, and continuous professional development curricula focusing particularly on communication, autonomy, consent, and respectful behaviour.

Nursing administration: Nurse administrators should promote supportive work environments, adequate supervision, staff development, accountability, and regular monitoring of RMC practices within maternity units [30].

Research: Further studies should use larger and more diverse samples, longitudinal designs, and multicentre approaches to examine determinants of RMC and evaluate whether educational and organizational interventions produce sustained improvements in maternity-care practices.

12. Limitations

The study was conducted among nursing officers in selected maternal hubs of West Bengal, which may

limit generalizability. The cross-sectional design prevents determination of temporal relationships. There could be some bias with regard to response from self-reports, whereas the study setting and sample method might not necessarily be representative of all nursing officers in West Bengal.

References

1. Puthussery, S., Bayih, W. A., Brown, H., & Aborigo, R. A. (2023). Promoting a global culture of respectful maternity care. *BMC Pregnancy and Childbirth*, 23(1), 798. <https://doi.org/10.1186/s12884-023-06118-y>
2. Yohannes, E., Moti, G., Chaka, E. E., Gabriel, L., Tickle, N., Creedy, D. K., & Hastie, C. (2025). Toward consensus: a Delphi study on the core principles and indicators of respectful maternity care. *Reproductive Health*, 22(1). <https://doi.org/10.1186/s12978-025-02143-6>
3. Abuya, T., Sripad, P., Ritter, J., Ndwiaga, C., & Warren, C. E. (2018). Measuring mistreatment of women throughout the birthing process: implications for quality of care assessments. *Reproductive health matters*, 26(53), 48-61. <https://doi.org/10.1080/09688080.2018.1502018>
4. Perrotte, V., Chaudhary, A., Goodman, A., Perrotte, V., Chaudhary, A., & Goodman, A. (2020). At least your baby is healthy” obstetric violence or disrespect and abuse in childbirth occurrence worldwide: A literature review. *Open J Obstet Gynecol*, 10(11), 1544-62. <https://doi.org/10.4236/ojog.2020.10110139>
5. Khalil, M., Carasso, K. B., & Kabakian-Khasholian, T. (2022). Exposing obstetric violence in the eastern Mediterranean region: a review of Women's narratives of disrespect and abuse in childbirth. *Frontiers in global women's health*, 3, 850796. <https://doi.org/10.3389/fgwh.2022.850796>
6. Hajizadeh, K., Vaezi, M., Meedya, S., Mohammad Alizadeh Charandabi, S., & Mirghafourvand, M. (2020). Prevalence and predictors of perceived disrespectful maternity care in postpartum Iranian women: a cross-sectional study. *BMC Pregnancy and Childbirth*, 20(1), 463. <https://doi.org/10.1186/s12884-020-03124-2>
7. Leinweber, J., & Stramrood, C. (2024). Improving birth experiences and provider interactions: Expert opinion on critical links in Maternity care. *European Journal of Midwifery*, 8, 10-18332. <https://doi.org/10.18332/ejm/191742>
8. Lusambili, A., Wisofski, S., Shumba, C., Obure, J., Mulama, K., Nyaga, L., ... & Temmerman, M. (2020). Health care workers'

- perspectives of the influences of disrespectful maternity care in rural Kenya. *International Journal of Environmental Research and Public Health*, 17(21), 8218. <https://doi.org/10.3390/ijerph17218218>
9. Uwamahoro, V., Semasaka, J. P. S., Ndagijimana, A., & Humuza, J. (2023). Perceptions and attitudes of midwives on respectful maternity care during childbirth: a qualitative study in three district hospitals of Kigali City of Rwanda. *The Pan African Medical Journal*, 46, 110. <https://doi.org/10.11604/pamj.2023.46.110.40764>
 10. Afulani, P. A., Buback, L., McNally, B., Mbuyita, S., Mwanyika-Sando, M., & Peca, E. (2020). A rapid review of available evidence to inform indicators for routine monitoring and evaluation of respectful maternity care. *Global Health: Science and Practice*, 8(1), 125-135. <https://doi.org/10.9745/GHSP-D-19-00323>
 11. Asefa, A. (2021). Unveiling respectful maternity care as a way to address global inequities in maternal health. *BMJ Global Health*, 6(1). <https://doi.org/10.1136/bmjgh-2020-003559>
 12. Athira, C., Majumdar, A., Sutar, R. F., Singh, B., Thampy, P., Rupani, A., & Dabar, D. (2025). Exploring Respectful Maternity Care and its determinants: a mixed methods cross-sectional study from a rural area in central India. *BMC Pregnancy and Childbirth*, 25(1), 869. <https://doi.org/10.1186/s12884-025-07454-x>
 13. Bohren, M. A., Tunçalp, Ö., & Miller, S. (2020). Transforming intrapartum care: Respectful maternity care. *Best Practice & Research Clinical Obstetrics & Gynaecology*, 67, 113-126. <https://doi.org/10.1016/j.bpobgyn.2020.02.005>
 14. Cantor, A. G., Jungbauer, R. M., Skelly, A. C., Hart, E. L., Jorda, K., Davis-O'Reilly, C., ... & Tilden, E. L. (2024). Respectful maternity care: A systematic review. *Annals of Internal Medicine*, 177(1), 50-64. <https://doi.org/10.7326/M23-2676>
 15. Chakraborty, C., & Jana, A. (2025). Uneven progress in maternal health evaluated through a district level maternal health index for West Bengal based on NFHS data. *Discover Public Health*, 22(1), 789. <https://doi.org/10.1186/s12982-025-01141-0>
 16. Das, I., Datta, M., & Samanta, S. (2023). Perspectives of doctors and nurses about the implementation of respectful maternity care in a teaching hospital in India. *Hamdan Medical Journal*, 16(1), 20-25. https://doi.org/10.4103/hmj.hmj_72_22
 17. Debsarma, D., Karmakar, R., & Saha, J. (2022). Trends and determinants in the utilization of maternal healthcare services in West Bengal, India: Findings from the 3rd and 4th round National Family and Health Survey. *Midwifery*, 112, 103387. <https://doi.org/10.1016/j.midw.2022.103387>
 18. Debyani, D., & Smritikana, M. (2019). Effect of Awareness Programme on Knowledge regarding Respectful Maternity Care (RMC) among Antenatal Women in a Selected Hospital of West Bengal. *Nursing Journal of India*, 110(1), 34-37. <https://www.proquest.com/openview/6f251ce68c2d013a2b527f7d0cea7259/1?pq-origsite=gscholar&cbl=35042>
 19. Devassy, D., & Sangeetha, X. (2023). Knowledge on respectful maternity care among staff nurses: a descriptive survey. *International Journal of Reproduction, Contraception, Obstetrics and Gynecology*, 12(6), 1825. <https://dx.doi.org/10.18203/2320-1770.ijrcog20231563>
 20. Dhakal, P., Creedy, D. K., Gamble, J., Newnham, E., & McInnes, R. (2022). Educational interventions to promote respectful maternity care: A mixed-methods systematic review. *Nurse education in practice*, 60, 103317. <https://doi.org/10.1016/j.nepr.2022.103317>
 21. Dzomeku, V. M., Boamah Mensah, A. B., Nakua, E. K., Agbadi, P., Lori, J. R., & Donkor, P. (2021). Midwives' experiences of implementing respectful maternity care knowledge in daily maternity care practices after participating in a four-day RMC training. *BMC Nursing*, 20(1). <https://doi.org/10.1186/s12912-021-00559-6>
 22. Jolivet, R. R., Gausman, J., Kapoor, N., Langer, A., Sharma, J., & Semrau, K. E. (2021). Operationalizing respectful maternity care at the healthcare provider level: a systematic scoping review. *Reproductive health*, 18(1), 194. <https://doi.org/10.1186/s12978-021-01241-5>
 23. Mandal, I., Singh, M. M., Banerjee, B., Bhatnagar, N., Tyagi, S., & Jha, A. (2025). Experiences of Respectful Maternity Care among postnatal women at a tertiary care hospital in new Delhi. *BMC Pregnancy and Childbirth*, 25(1), 1023. <https://doi.org/10.1186/s12884-025-08211-w>
 24. Mgawadere, F., & Shuaibu, U. (2021). Enablers and barriers to respectful maternity care in low and middle-income countries: a literature review of qualitative research. *Int J Clin Med*, 12(5), 224-49. <https://doi.org/10.4236/ijcm.2021.125021>

25. Moridi, M., Pazandeh, F., & Potrata, B. (2022). Midwives' knowledge and practice of Respectful Maternity Care: a survey from Iran. *BMC Pregnancy and Childbirth*, 22(1). <https://doi.org/10.1186/s12884-022-05065-4> 10
26. Raval, H., Puwar, T., Vaghela, P., Mankiwala, M., Pandya, A. K., & Kotwani, P. (2021). Respectful maternity care in public health care facilities in Gujarat: A direct observation study. *Journal of Family Medicine and Primary Care*, 10(4), 1699-1705. https://doi.org/10.4103/jfmmpc.jfmmpc_1934_20
27. Reddy, B., Thomas, S., Karachiwala, B., Sadhu, R., Iyer, A., Sen, G., ... & Tunçalp, Ö. (2022). A scoping review of the impact of organisational factors on providers and related interventions in LMICs: implications for respectful maternity care. *PLOS Global Public Health*, 2(10), e0001134. <https://doi.org/10.1371/journal.pgph.0001134>
28. Stavropoulou, A., Kelesi, M., Baltagianni, M., Sigala, E., Tsapnidou, E., Gerogianni, G., & Katharakis, G. (2025). The impact of Continuing Nursing Education on nurses' knowledge and quality of practice: A systematic review. *Health Professions Education*, 11(3). <https://doi.org/10.55890/2452-3011.1346>
29. Venkatesan, L., & Kaur, P. (2022). Respectful Maternity Care: Knowledge, Attitude and Practice of health care workers and maternal perception about RMC-A Scoping Review. *J Comp Nurs Res Care*, 7(2), 185. <https://doi.org/10.33790/jcnrc1100185>
30. Yadav, A., Kamath, A., Mundle, S., Baghel, J., Sharma, C., & Prakash, A. (2021). Exploring the perspective of nursing staff or caregivers on birthing positions in Central India. *Journal of family medicine and primary care*, 10(3), 1149-1154. https://doi.org/10.4103/jfmmpc.jfmmpc_2066_20

Appendix

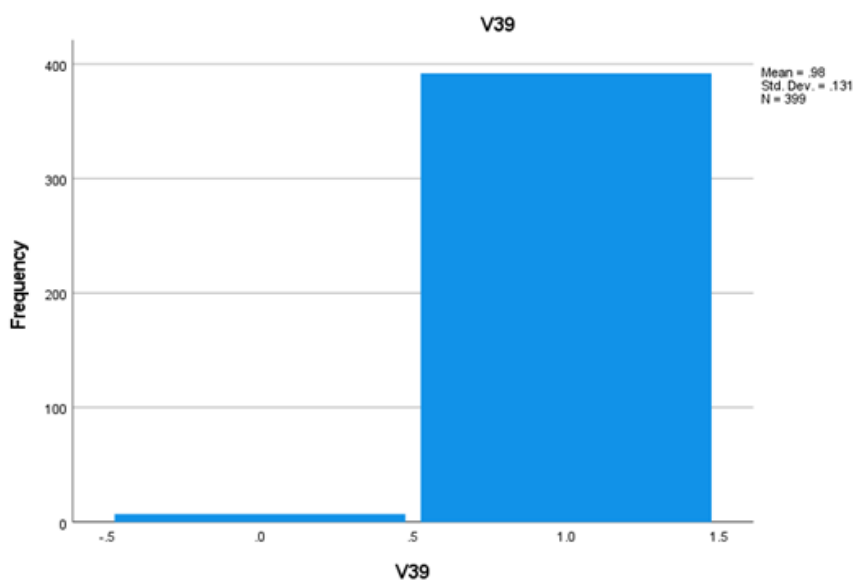


Figure 1: Histogram of V39 and Frequency

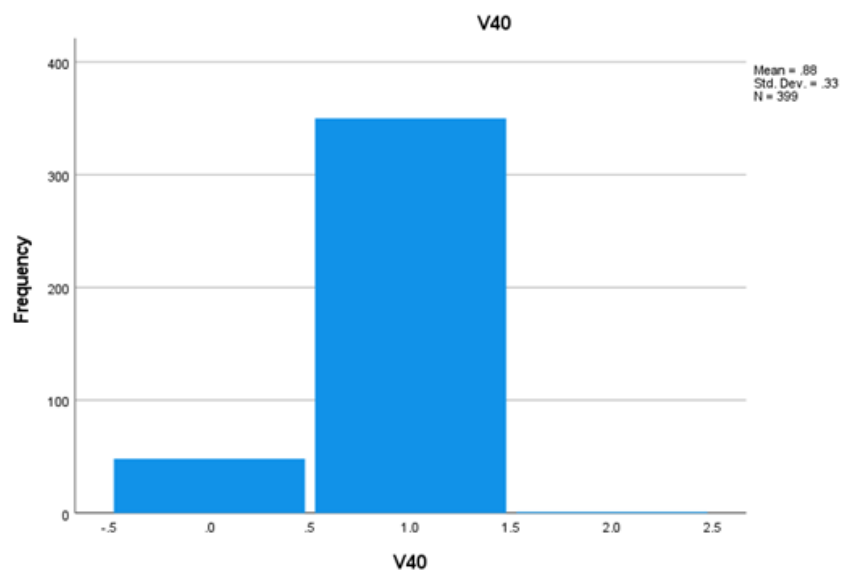


Figure 2: Histogram of V40 and Frequency

Respectful Maternity Care among Nursing Officers: A Cross-Sectional Study of Knowledge and Practices in West Bengal

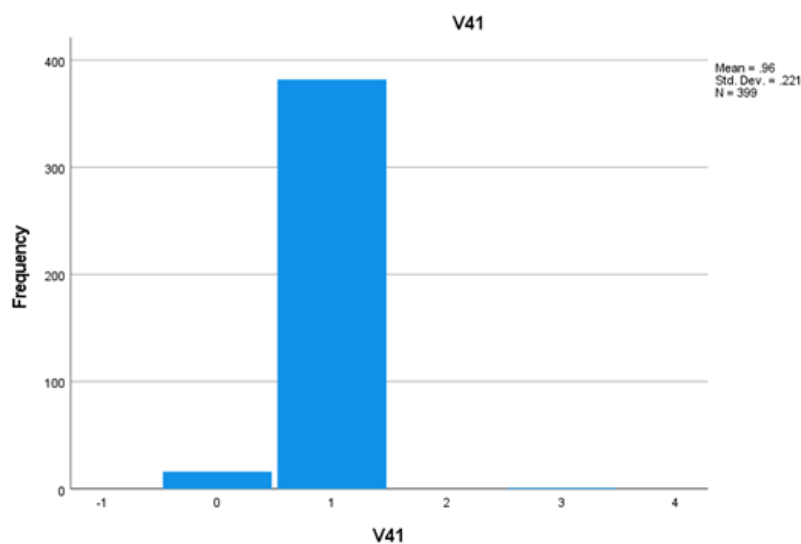


Figure 3: Histogram of V41 and Frequency

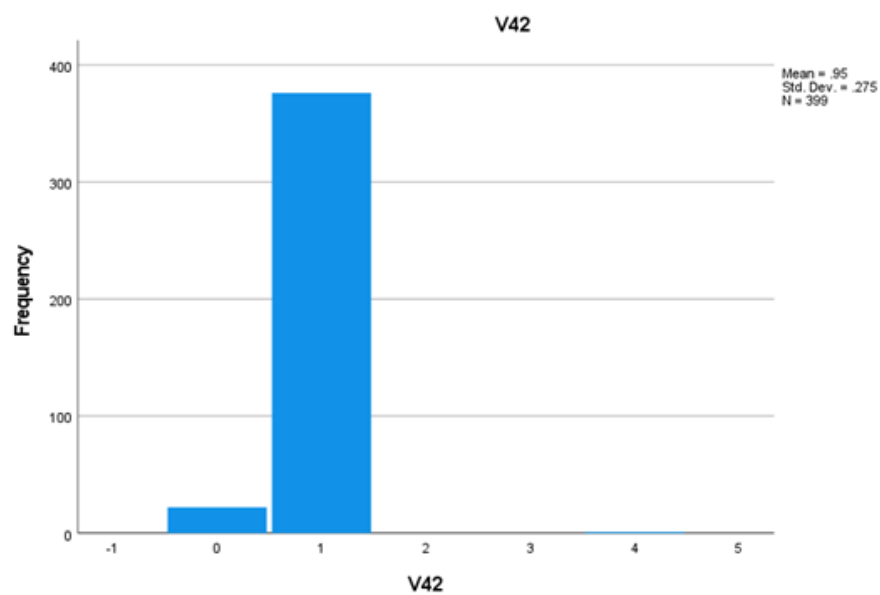


Figure 4: Histogram of V42 and Frequency

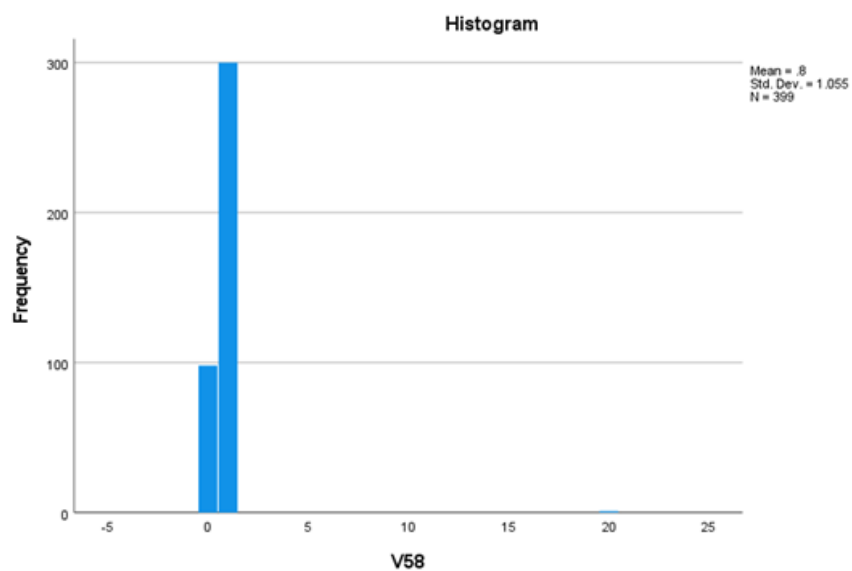


Figure 5: Histogram of V58 and Frequency

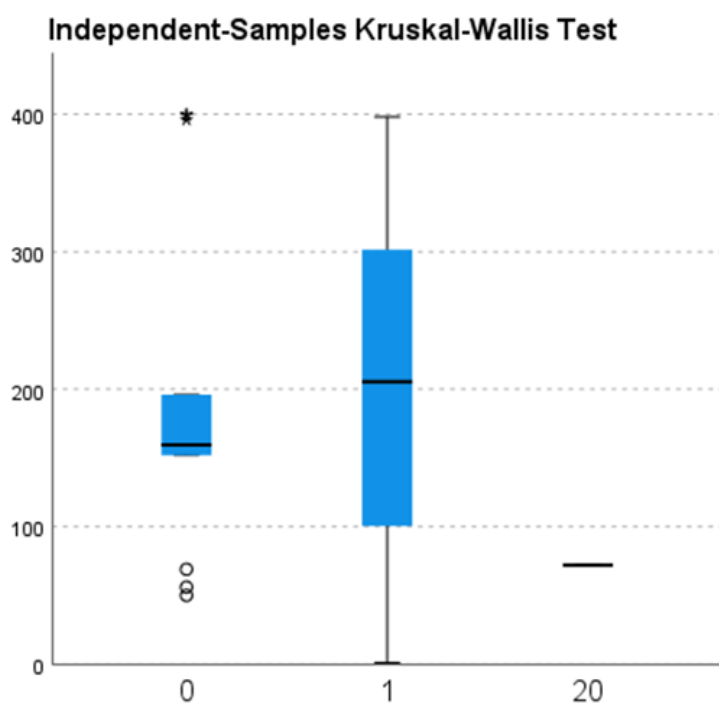


Figure 6: Independent Sample Kruskal-Wallis Test

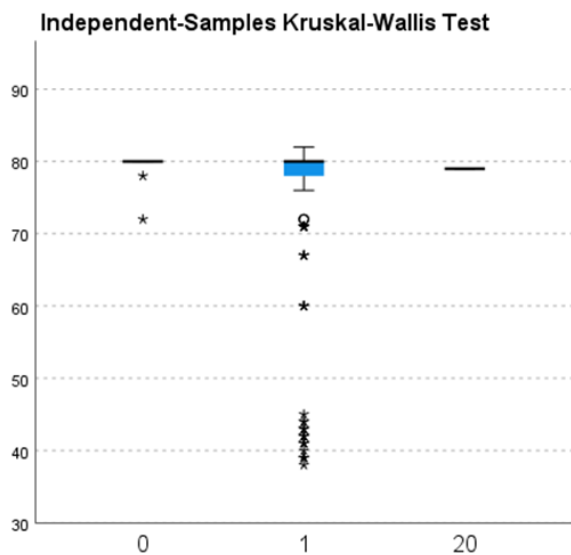


Figure 7: Independent Sample Kruskal-Wallis Test

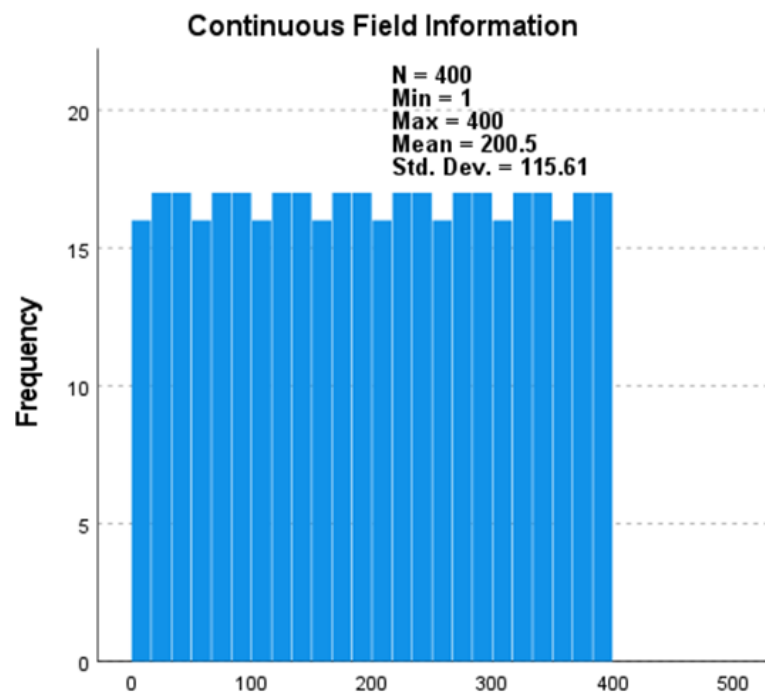


Figure 8: Continuous Field information