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DEVELOPMENT AND PSYCHOMETRIC ASSESSMENT OF THE RESPECTFUL MATERNITY CARE MEASUREMENT TOOL: A NARRATIVE REVIEW

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ABSTRACT

Introduction: Respectful Maternity Care (RMC) emphasizes the dignity, autonomy, and rights of women during childbirth, influencing maternal and neonatal outcomes. Despite its importance, there is a lack of standardized tools to assess RMC.

Methods: A thorough search of databases (PubMed, MEDLINE, EBSCOhost, Google Scholar, and Scopus) was performed for studies published from January 2015 to April 2024. The inclusion criteria targeted studies that focused on the Designing, content validation, and psychometric testing of Respectful Maternity Care (RMC) tools. Data extraction included capturing tool descriptions, study methodologies, and psychometric properties.

Results: Out of 30 identified articles, 9 met the inclusion criteria. The reviewed tools, developed through various methodologies, demonstrated strong psychometric properties. Key tools include Lazzerini *et al*.'s WHO standards-based tool, Dwekat *et al*.'s mistreatment and quality of care questionnaire, and Hajizadeh *et al*.'s Disrespect and Abuse Questionnaire, with Cronbach's alpha values generally exceeding 0.80.

Conclusion: The review highlights robust development methodologies and underscores the need for standardized approaches to ensure tool applicability across diverse settings.

Keywords: Quality of Maternity Care, RMC assessment, Psychometric evaluation, maternal health, tool development, validity, reliability, narrative review

INTRODUCTION

"Respectful Maternity Care (RMC)" is a cornerstone of maternity health services, prioritizing the dignity, autonomy, and rights of pregnant and postpartum women. The provision of RMC not only fulfils ethical responsibilities but also significantly influences outcomes of maternal and neonatal health. Evidence shows that women who receive respectful care during childbirth have reported improved health outcomes, reduced stress levels, and higher satisfaction with their overall care experience **[1]**.

Despite these advantages, the reality frequently falls short of this ideal. According to a World Health Organization (WHO) study carried out in four different nations, more than one-third of mothers gave birth in medical facilities to their children in abusive circumstances. This mistreatment included verbal abuse, physical coercion, sexual harassment, and violations of privacy and consent. These adverse experiences not only cause significant harm to individual women but also erode trust in healthcare systems and discourage women from opting for facility-based deliveries **[1]**.

Abuse and mistreatment of women are pervasive throughout the world, according to recent studies and systematic reviews. A thorough review found that between 15% and 98% of cases involved mistreatment **[2]**. Another systematic study that was limited to India found a pooled prevalence of disrespect and maltreatment during delivery services to be 71.31%. In this context, studies conducted in communities reported a prevalence of 77.32%, whereas those conducted in hospitals reported 65.38% **[3]**. The mistreatment of women during institutional delivery services, which increases the risk of maternal death and morbidity, is a significant barrier to accessing maternity care. Examples of these rates are Gujarat's MMR of 57 and India's SRS 2018–20, which have MMRs of 97 and 57, respectively **[4]**.

Despite the significance of RMC, there has been a lack of standardized tools to assess it. Researchers and practitioners have recognized this gap and have worked toward developing and validating assessment tools. These tools aim to capture various dimensions of RMC, including effective communication, privacy protection, autonomy, emotional support, and shared decision-making during labour, delivery, and the postpartum period.

In this narrative review, we explore the evolution of RMC assessment tools. We delve into their development process, psychometric properties (such as validity and reliability), and their applicability across diverse contexts. By understanding the strengths and limitations of existing

instruments, we can enhance the quality of maternity care and promote respectful practices worldwide.

METHODOLOGY

Search Strategy:

A thorough search of several electronic databases, including PubMed, MEDLINE, EBSCOhost, Google Scholar, and Scopus, was conducted to find relevant studies. Supplementary sources were identified by manually reviewing reference lists.

The keywords used for searching the studies were,

- Disrespect OR mistreatment OR abuse AND pregnancy AND childbirth AND assessment OR tool.
- Respectful OR dignified OR empathetic AND maternity care AND pregnancy AND childbirth AND assessment OR tool.
- Quality of care AND pregnancy AND childbirth AND assessment OR tool.

Selection Criteria:

Specific inclusion and exclusion parameters were established for the study selection criteria. Included were studies that were fully text accessible and published in English between January 2015 and April 2024. Studies must concentrate on the Design and psychometric assessment of Respectful Maternity Care (RMC) tools that are suitable for women receiving maternity care. Studies that did not explicitly address the creation, validation, or psychometric assessment of RMC tools were excluded, as were those with insufficient methodological rigor or clarity.

Data Extraction and Synthesis:

Data extraction and synthesis involved gathering the most important information from each chosen study, such as the author(s), year of publication, name of the assessment tool, study methodology (e.g., design, phases/steps), tool description (e.g., total items, scales/subscales, components), and reported psychometric properties (e.g., validity measures, reliability coefficients).

The collected research' findings were analysed and combined using a narrative synthesis process. To uncover recurring themes, methodological strategies, and important discoveries pertaining to the creation and assessment of RMC assessment instruments, this procedure involved arranging and condensing the retrieved data. Through an emphasis on strengths, limitations, and potential areas for further research, the synthesis sought to present a thorough review of the state of RMC evaluation tools as of right now.

Quality appraisal

The methodological quality of the included research was evaluated using the COSMIN criteria, when appropriate. Study design, sample size, statistical techniques

applied in psychometric evaluations, and overall methodological rigor were all taken into account when evaluating the quality of the work.

RESULT

From the initial search, 30 articles were identified, with 17 deemed potentially relevant after screening titles and abstracts. Upon conducting a full-text assessment, 9 studies were eventually incorporated into the review after they satisfied the inclusion criteria.

Table 1: Summary of the tools to assess respectful maternity care

Author/ Year	Name of tool	Country	Methodology (Design, steps/phases)	Description of tool (Total Items, scales/subscales, Components)	Psychometric properties	Comment
Lazzerini *et al*., 2021 [5]	WHO standard based tool-'Women's view on the quality of care around the time of childbirth'	Italy	Study Design: Multiphase, Mixed-Methods Approach Study Steps: 1. Defining scope and compile list of measures. 2. Content and construct validity assessment 3. Primary field testing. 4. Optimize content and develop scoring mechanisms. 5. Evaluate validity and reliability. 6. Second field testing across nine hospitals.	Total Items: 116 questions Domain: WHO Quality Measures (99 out of 350)	Validity: Face validity was confirmed with 87% of questions achieving 100% agreement and a Kappa statistic over 0.60 for the rest. Reliability: Internal consistency-strong, Cronbach's alpha between 0.84 and 0.88. Acceptability: The assessment tool had a moderate mean response rate of 57.4%.	Robust design with strong reliability and moderate acceptability.
Dwekat *et al*., 2020 [6]	'Questionnaire to measure Mistreatment of women during childbirth'	Palestine	Design: Cross-sectional validation study Steps: 1. Literature review and in-depth interviews for item generation 2. Content validity assessment by experts 3. Face validity assessment by participants 4. Exploratory factor analysis (EFA) for satisfaction and quality domains 5. Reliability assessment using Cronbach's alpha	Total Items: 70 Domains: 1. Satisfaction of Care (11 items) 2. Perceived Quality of Care (16 items) 3. Experience of Mistreatment during Childbirth (43 items)	Validity: Face validity: I-FVI values ranged from 0.8 to 1, with an S-FVI score of 0.9. Content validity: CVI values exceeded 0.83, with an S-CVI score of 0.89. KMO values- 0.842 for Satisfaction of care and 0.842 for perceived quality of care. Reliability: Cronbach's alpha coefficients above 0.87 for satisfaction and perceived quality domains, indicating high internal consistency.	Adequate validation and reliability measures.
Hajizadeh K *et al*., 2019 [7]	Disrespect and Abuse Questionnaire	Iran	Study Design: Sequential Explanatory Mixed Methods Phases: 1. Quantitative Study 2. Qualitative Study 3. Guideline Development for Maternity Care	Total Items: 23 Domains: 1. Abandoning the mother 2. Improper Care 3. Mother's Immobility 4. Not Talking to the mother 5. Mother's Deprivation	Validity: Face Validity: All items minimum impact score 1.5. Content Validity: CVR (>0.69) and CVI (>0.79) values. Construct Validity: Confirmatory factor analysis $X^2/df < 5$ and root mean square error of approximation < 0.08. Reliability: Cronbach's Alpha Coefficient: 0.90	Strong validity and reliability assessment.

Dzomeku *et al*., 2019 [8]	**23i-RMC (Respectful Maternity Care) scale**	**Ghana**	**Design: Cross-sectional validation study Steps: 1. Literature search and conceptualization 2. Draft scale development 3. Survey of 263 postpartum women 4. Exploratory factor analysis (EFA) using SPSS-21 5. Inter-item reliability tests**	**Total Items: 23 Domains: 1. VADDC (Verbal Abuse-free, Discriminatory-free, and Dignified Care): 11 items 2. PPAC (Physical and Psychological Abuse-free Care): 9 items 3. CC (Compassionate Care): 3 items**	**Validity: KMO value 0.932 Reliability: Cronbach's Alpha 0.945.**	**High validity and reliability measures.**
Taavoni *et al*., 2018 [9]	**QRMCQI- Quality of Respectful Maternity Care Questionnaire in Iran**	**Iran**	**Study Design: Mixed Sequential Exploratory Design Phases: 1. Generation of Items or Questions 2. Validity: Face 3. Validity: Content 4. CFA (Confirmatory Factor Analysis) 5. Reliability**	**Total Items: 59 Subscales: Labor- 21 items Delivery- 18 items Postpartum Care- 20 items**	**Validity: Face validity: Confirmed by expert evaluation. Content validity: Total CVR was 0.74, and average CVI was 0.94. Kappa coefficients: Ranged from 0.8 to 1, indicating strong agreement. Confirmatory Factor Analysis (CFA): Good fit with KMO index of 0.871, CFI of 0.91, and RMSEA of 0.087. Reliability: Cronbach's alpha: 0.86 (Labor, 0.85 (Delivery) and 0.78 (Postpartum care), indicating good internal consistency.**	**Strong validation, moderate reliability.**
Ayoubi S *et al*., 2018 [10]	**WP-RMC 'Women's perception of Respectful Maternity care'**	**Iran**	**Design: Exploratory Sequential Mixed Methods Phases: 1. Item generation: Focus groups with postpartum women, literature review, and expert review. 2. Evaluation of psychometric characteristics: face, content, construct validity, and reliability.**	**Total Items: 19 Domains: 1. Providing Comfort 2. Participatory Care 3. Mistreatment**	**Validity: 53.05% of the observed variance was explained by exploratory factor analysis. Content Validity Ratio (CVR) 0.79 and the Content Validity Index (CVI) 0.97. Reliability: Cronbach's Alpha: 0.91 Intraclass Correlation Coefficient (ICC): 0.90**	**Strong validity and reliability measures.**
Blair O Berger *et al*. / 2018 [11]	**'Measures for assessing Mistreatment of women during facility-based childbirth'**	**Nigeria, Ghana, Guinea**	**Steps: • Secondary data from study on 'How women are treated during facility-based childbirth' (WHO, 2016–2018). • EFA (Exploratory factor analysis) • Developed two indexes using a modified Organisation for**	**Scales: • Interpersonal Abuse Scale (7-items) • Exams & Procedures Index (3-items) • Unsupportive Birth Environment Index (12-items)**	**Validity: Construct validity confirmed via exploratory factor analysis, revealing consistent, unidimensional factor structures and interitem correlations across Nigeria, Ghana, and Guinea. Reliability: Internal reliability coefficients were 0.71 for the Interpersonal Abuse Scale in**	**Adequate validity, varying reliability across settings.**

			Economic Co-operation and Development approach. • **Evaluated measures for performance, validity, and internal reliability.**		**Nigeria, and around 0.60 in Ghana and Guinea. Minimal inter-correlations between measures justify their separate usage.**	
Afulani PA *et al*., 2017 [12, 13]	**'Person-Centered Maternity Care (PCMC) Scale'**	**Kenya, India**	**Steps:** 1. **Define PCMC scale and identify domains.** 2. **Generate items.** 3. **Conduct expert reviews.** 4. **Conduct cognitive interviews.** 5. **Administer surveys.** 6. **Perform psychometric analysis.**	**Total Items: Kenya - 30 items, India - 27 items** **Domains:** **1. Dignity and Respect** **2. Communication and Autonomy** **3. Supportive Care**	**Validity:** **Overall KMO value 0.91, suitable for factor analysis.** **Initial Analysis: Four factors explained 87% of the variance.** **Reliability:** **Cronbach's alpha overall scale = 0.85; sub-scales range from 0.67 to 0.73.**	**Strong validity and reliability across domains.**
Sheferaw *et al*., 2016 [14]	**Respectful Maternity Care (RMC) Scale**	**Ethiopia**	**Study design: Mixed method study** **Phases:** **1. Initial item generation** **2. Expert review** **3. Pilot testing** **4. Administering to developmental group**	**Total Items: 15** **Subscales:** • **Friendly care (5 items)** • **Abuse-free care (3 items)** • **Timely care (3 items)** • **Discrimination-free care (4 items)**	**Validity: Face validity, content validity (ensured through item generation process), criterion-related validity (correlation with global satisfaction measures), construct validity (high factor loadings, low inter-component correlation)** **Reliability: Adequate internal consistency (Cronbach's alpha = 0.845), stability confirmed by split sample analysis**	**Adequate validity and reliability.**

DISCUSSION

Several research have examined the comprehensive development and validation of RMC (Respectful Maternity Care) assessment instruments, which this analysis has reviewed. For example, Lazzerini *et al*. (2021) **[5]** conducted a multiphase, mixed-methods study with a focus on extensive field testing across various Italian hospitals in order to produce a WHO standards-based tool. Along with other strong psychometric properties, their methods ensured excellent acceptability metrics (mean response rate 57.4%) and also shows high internal consistency (Cronbach's alpha 0.84 to 0.88).

Comparably, Dwekat *et al*. (2020) **[6]** used cross-sectional validation to create a thorough questionnaire in Palestine that was found to have satisfactory face and content validity by combining participant comments and expert assessments. The tool they used to address abuse during labor and the quality of care showed strong reliability (Cronbach's alpha > 0.87), both in terms of satisfaction and perceived quality.

Using a sequential explanatory mixed methods approach, Hajizadeh *et al*. (2019) **[7]** developed the Disrespect and Abuse Questionnaire in Iran, concentrating on various aspects of mistreatment. Their instrument demonstrated robust psychometric qualities, including rigorous validity as demonstrated by confirmatory factor analysis and good reliability (Cronbach's alpha coefficient of 0.90).

Moreover, works done by Taavoni *et al*. (2018) **[9]** and S Ayoubi *et al*. (2018) **[10]** show that research from India has significantly contributed to the global conversation on RMC evaluation methods. These studies highlight the need of addressing problems related to maternity care practices and the need to adapt instruments to various cultural contexts.

The endeavours emphasize the significance of creating uniform and culturally aware instruments for evaluating RMC, thereby enhancing maternal health results globally.

LIMITATIONS AND RECOMMENDATIONS

Despite the progress in developing Respectful Maternity Care (RMC) tools, several limitations persist in the reviewed studies. Variations in study populations, methodologies, and cultural contexts may restrict the applicability of findings. Future research should prioritize standardized methodologies and validation processes to enhance consistency and comparability across diverse settings.

Furthermore, ongoing efforts are essential to refine existing tools and create new instruments that address emerging aspects of respectful maternity care, including equity, cultural safety, and patient-centeredness. Collaborative initiatives

across borders could facilitate the adaptation and adoption of validated tools, promoting uniform standards of care and improving maternal health outcomes on a global scale.

CONCLUSION

In conclusion, the reviewed studies have contributed significantly to the advancement of RMC assessment tools, demonstrating their utility in enhancing the quality and accountability of maternal healthcare services. By incorporating rigorous methodologies and robust psychometric evaluations, these tools offer valuable insights into women's experiences during pregnancy and childbirth, ultimately informing policy and practice to promote respectful and dignified maternity care worldwide.

Conflict of Interest

None

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