Ife Social Sciences Review
Faculty of Social Sciences,
Obafemi Awolowo University Ile Ife, Nigeria
Journal homepage: www.issr.oauife.edu.ng/journal
ISSN:0331-3115 eISSN:2635-375X

Assessing the Impact of Educational Intervention on Knowledge and Practice of Respectful Maternal Care among Nurses in North Central Nigeria

Kadir Amina Titi[1] & Ogbeye Gbemisola Bolanle[2]
[1]Kwara State College of Nursing Sciences, Ilorin
[2]Department of Nursing, Faculty of Basic Medical Sciences, Federal University, Oye-Ekiti. Nigeria.

Abstract

The study examined the impact of educational intervention on nurses' knowledge and practice of respectful maternal care in North Central Nigeria. A quasi-experimental one-group research design was adopted. The study was conducted among 222 midwives in nine randomly selected hospitals, cutting across the three senatorial districts of Kwara State. Following the educational intervention, nurses showed a marked improvement in their understanding and application of respectful maternity care. Average knowledge scores increased from 17.42 before the training to 20.88 at six weeks, with a slight decrease to 19.61 by the twelfth week ($p < 0.001$). Similarly, their practice scores rose from 92.37 pre-intervention to 104.48 post-intervention, then tapered slightly to 99.09, still significantly higher than baseline ($p < 0.001$). These outcomes reflect meaningful learning gains and positive shifts in care behaviour, though they also underscore the need for continued reinforcement.

Keywords: Nurses, Educational Intervention, Respectful Maternal Care, Nigeria

Introduction

Maternal care is a fundamental aspect of healthcare delivery systems globally, particularly in low- and middle-income countries (LMICs). Nigeria, in particular, continues to experience maternal morbidity and mortality rates globally, contributing approximately 20% of global maternal health outcomes annually (World Health Organization (WHO, 2023). While efforts have been made to improve the availability and accessibility of maternal health services, the quality of care, especially in terms of women's experience during pregnancy, labour and childbirth remain inadequate. Studies have highlighted the prevalence of Disrespect and Abuse (D&A) during facility-based deliveries (Bohren, et al, (2015) and Okafor, Ugwu, & Obi (2015). Women often experience physical and verbal abuse, non-consented clinical procedures, neglect, discrimination, and violation of privacy and confidentiality particularly in public health facilities (Okafor, Ugwu, & Obi (2015). These negative experiences may deter women from ultilizing skilled birth attendants and institutional delivery services, contributing to poor maternal outcomes, erode trust in the health system and hinder progress toward quality Respectful Maternity Care (RMC) (Kruk et al, 2018).

Respectful Maternal Care (RMC) is a globally recognized approach aimed at addressing the mistreatment of women during pregnancy, labour, and childbirth. It embodies a rights-based approach to maternal care that ensures women are treated with dignity, empathy, and compassion during childbirth (WHO, 2023). It is a care that is organized for and provided to all women in a manner that maintains their dignity, privacy, and confidentiality to ensure freedom from harm/mistreatment and enables informed choice and continuous support during labour and

childbirth (WHO, 2023). It is essential for improving both maternal satisfaction and clinical outcomes (WHO, 2018). However, integrating these principles into routine maternal care requires not only structural changes but also behavioural change among health care providers, particularly nurses and midwives who are the primary caregivers during childbirth. Primary caregivers play a critical role in the provision or omission of Respectful Maternity Care in Nigeria, particularly in primary and secondary health care facilities (Ishola ,Owolabi, & Filippi, 2017). As frontline providers, their knowledge and attitudes towards Respectful Maternity Care are critical to fostering a safe, supportive, and empowering environment for women during childbirth. While several studies (Ijadunola et al. (2019); and Ishola ,Owolabi, & Filippi, 2017) have documented the nature and prevalence of D&A in Nigerian health facilities, there is limited evidence on effective interventions to address knowledge and practice gaps contributing to these issues. The persistence of mistreatment has been linked to multiple systemic and individual factors, including overworked staff, poor infrastructure, inadequate supervision, weak legal mechanisms, and insufficient training on RMC principles within the health system (Bohren et.al. 2017). In north central Nigeria, these challenges are particularly pronounced due to health system disparities, cultural complexities, and varying professional capacity across states and health institutions (Aregbeshola, 2019).

Educational interventions targeting healthcare providers, particularly nurses, have been proposed as a critical strategy for improving RMC practices. Such interventions aim to enhance awareness of patients' rights, promote empathetic and woman-centred care, and strengthen providers' capacity to deliver respectful services even in resource-constrained settings (Ratcliffe et.al. 2016). Evidence from intervention studies in countries like Tanzania, Kenya, and Ethiopia suggests that well-designed training programs can improve knowledge, shift provider attitudes, and lead to observable improvements in respectful care behaviours (Bulto, Demissie, & Tulu, 2020; Abuya et.al., 2015; and Sando, Abuya & Asefa 2017). However, in Nigeria, such interventions are still emerging and have not been scaled nationwide. Pilot studies and smaller implementation projects have reported promising results. For example, a cluster randomized trial in some Nigerian states showed that midwives who received RMC training demonstrated significantly improved behaviour in terms of consent seeking, privacy maintenance, and emotional support to women in labour (Balde, Nasiri, & Mehrtash, 2020). Also, the RMC studies conducted by Okedo-Alex et al. (2020) in the south-east, Ijadunola et al. (2019) in the south-west, demonstrated improved provider knowledge, better patient-provider interactions, and increased maternal satisfaction. Nevertheless, few studies have specifically focused on North Central Nigeria, and there remains a need to systematically evaluate the effectiveness of educational interventions in this context, especially among nurses who form the frontline of maternal health services. The region presents a unique context for evaluating such interventions. With a diverse population, moderate facility coverage, and existing investments in maternal and child health programs by government, international bodies and relevant stakeholders in the areas of free maternal health care, Safe motherhood, coupled with an advocacy for skilled birth attendance and facility childbirth by government and relevant stakeholders, the region provides a practical environment to assess how educational interventions can enhance RMC knowledge and practice among nurses.

Methods

Research design and settings

The study adopted a quasi-experimental one-group (pre-post intervention) research design. The study was conducted in nine randomly selected hospitals, cutting across the three senatorial districts in Kwara State. The hospitals included are Cottage Hospital Ajikobi, Cottage Hospital Adewole, General Hospital Ilorin, Bode-Saadu Hospital, CHC Shao Hospital, CHC Malete Hospital, Cottage Hospital Omupo, General Hospital Saare, and Ero-Omo Hospital. The hospitals offer a variety of clinical care services, including outpatient and inpatient care, antenatal care, and delivery. Utilization of

maternal care service with postnatal care as an example has a utilization rate of 17% as shown in a study by (Fasiku et al., 2018). Kwara state was considered because the low utilization of maternal healthcare services in Kwara has been said to be partly caused by the unfriendly and disrespectful attitudes of some healthcare providers (Abdulganiyu & Ilemona, 2021; Kadir & Fadare, 2023).

Study Population

Nurses/midwives working in the selected hospital obstetric units were included in the study. The nurses must have been working in the hospital for at least six months prior to the study. The exclusion criteria included midwives/nurses on leave and those who do not consent to participate in the study.

Sample size calculation

The minimum sample size (n) of 222 respondents was derived using single population proportion formula [n = (zα2p(1–p))/d2] where zα connotes the standard normal deviation corresponding to 95% confidence level and probability α of 1.96, p represents 84.6% prevalence of knowledge on respectful maternity care (Adeola et al., 2024), and d indicates 5% error margin. The sample size was estimated to be 200. However, the total sample size used was 222 to account for 10% attrition.

Sampling technique

A multistage sampling technique was used. The three senatorial districts in Kwara state were purposively selected, and one local government was randomly selected for each senatorial district. Also, 3 hospitals were randomly selected in each of the selected local government areas, making a total of 9 hospitals. Nurses/midwives were then selected through a systematic sampling approach across the selected hospitals until saturation.

Instrument for data collection

The data collection instrument consists of three sections: a section for recording demographic characteristics, another for midwives' knowledge, and practice of the respectful maternity care scale (MKP-RMC) scale. The MKP-RMC was designed and assessed for validity and reliability in a previous study, with the content validity index (CVI) and content validity ratio (CVR) of the MKP-RMC above 0.9. The scale for the practice and knowledge sections had good internal consistency of 0.72 and 0.95, respectively (Moridi et al., 2022). We adapted the MCHIP-RMC standard checklist by JHPIEGO, which has 29 items describing 6 categories of mistreatment, as adopted in the previous study (Esan et al., 2022; Maternal and Child Health Integrated Program, 2013).

Intervention procedure

A baseline assessment of participants' knowledge and practice of respectful maternal care was done to understand what their knowledge and practice were before the intervention.

The intervention phase entailed the implementation of an educational program designed to enhance midwives' adherence to respectful maternity care practices. A series of two-day workshops, each comprising three to four hours of instruction, was conducted. These workshops covered a range of topics, including dignity, respect, informed consent, privacy, and effective communication within the context of maternity care. To reinforce learning, educational materials such as brochures, manuals, and posters were distributed during these sessions.

In addition to the theoretical component, practical training sessions were incorporated into the program. These hands-on sessions, lasting approximately one hour, involved role-playing scenarios and practical exercises to facilitate midwives' acquisition and refinement of respectful maternity care skills. To provide ongoing support and guidance, a mentorship program was established, pairing midwives with experienced mentors. Regular check-ins and feedback sessions were scheduled to assist midwives in integrating the principles of respectful maternity care into their daily practice. The training was done using the educational adapted ICM training module

- Training using the PowerPoint projection
- Video session, showing pictures of respectful and disrespectful care
- Interactive session, for participants to share their experience
- For clarity, questions will be entertained.

At 6 and 12 weeks after the intervention phase, a post-intervention assessment of the midwives' practice of RMC was done by using a Rating scale in all the selected facilities among the midwives and nurses. The same questionnaire administered during the pre-intervention phase was re-administered to the participants to measure changes in knowledge and self-reported practices.

Outcome Variable

The outcome variables in this study are knowledge and practice of respectful maternal care.

Knowledge of RMC: This was measured by responding to questions on the list of 23 items to ask questions on knowledge of RMC among the midwives. The response was either "Yes" or "No", For knowledge out of a total of 23 points of elements, respondents who scored between 12-23 points will be allocated high knowledge, whereas those who scored below 10 will be recorded as having low knowledge of RMC (Moridi et al., 2022).

The practice of RMC: The practice of RMC in this study consisted of 23 items measured using a five-point Likert scale (always, often, sometimes, rarely, and never). The likert was scored from 1-5. A composite score was created by summing all the individual items within the scale and scores below the average was categorized as poor practice and score above the average as good practice (Moridi et al., 2022).

Data analysis

Analysis was done using descriptive statistics (mean, standard deviation, frequency, and percentage), and inferential statistics, including the Friedman test to compare the knowledge and practice of respectful maternal care at pre-intervention and post-intervention.

Results

Table 1: Socio-demographic characteristics of the respondents

Variable	Frequency	Percentage
Age group		
20-29 years	104	47.3
30-39 years	73	33.2
40-49 years	36	16.4
50-59 years	7	3.2
Sex		
Male	27	12.3
Female	193	87.7
Religion		
Christianity	61	27.7
Islam	159	72.3
Marital Status		
Single	91	41.4
Married	129	58.6
Ethnic group		
Yoruba	202	91.8
Hausa	7	3.2
Igbo	11	5.0
Level of education		
Diploma	55	25.0
BNSc	133	60.5
Masters	21	9.5
PhD	11	5.0
Professional qualification		
RM	55	25.0
RN	3	1.4

RM/RN	162	73.6
Rank/grade		
Nursing officer	95	43.2
Senior Nursing Officer	78	35.5
Chief Nursing Officer	29	13.2
Director of Nursing	18	8.2
Years of experience		
<5 years	87	39.5
5-10 years	80	36.4
10-15 years	29	13.2
15-20 years	14	6.4
>20 years	10	4.5

A higher proportion of the participants were within the age of 20-29 years (47.3%), the majority of them were female (87.7%) and Christians (72.3%). More than half of them were married (58.6%), and a larger proportion of them were Yoruba (91.8%), 60.5% of them had a BNSc qualification while on one-quarter of them had a diploma qualification, 39.5% of them have been practicing for less than 5 years, while 36.4% of them has been practicing for about 5-10 years ***(Table 1)***.

Table 2: Mean composite knowledge score by domain

	Pre-intervention		**6 weeks Post-intervention**		**12 weeks post-intervention**	
	Mean	**Std. Deviation**	**Mean**	**Std. Deviation**	**Mean**	**Std. Deviation**
Knowledge of emotional care	8.464	2.88	10.570	2.509	9.804	2.977
Knowledge of providing care	6.850	1.242	7.757	0.648	7.355	1.608
Knowledge of preventing mistreatment	2.186	0.803	2.528	0.779	2.439	0.836

P0=Pre-intervention, p1= 6 weeks post-intervention, p2= 12 weeks post-intervention

Table 2 shows the mean distribution of each domain of respectful maternal care knowledge. The mean knowledge of emotional care was 8.464, which increased to 10.570 at six weeks post-intervention and decreased slightly to 9.804 12 weeks post-intervention. Similarly, knowledge of providing care was 6.850, which increased to 7.757 at six weeks post-intervention and decreased slightly to 7.355 12 weeks post-intervention, and the same with knowledge of preventing mistreatment, 2.186 at pre-intervention, 2.528 six weeks post-intervention, and 2.439 12 weeks post-intervention

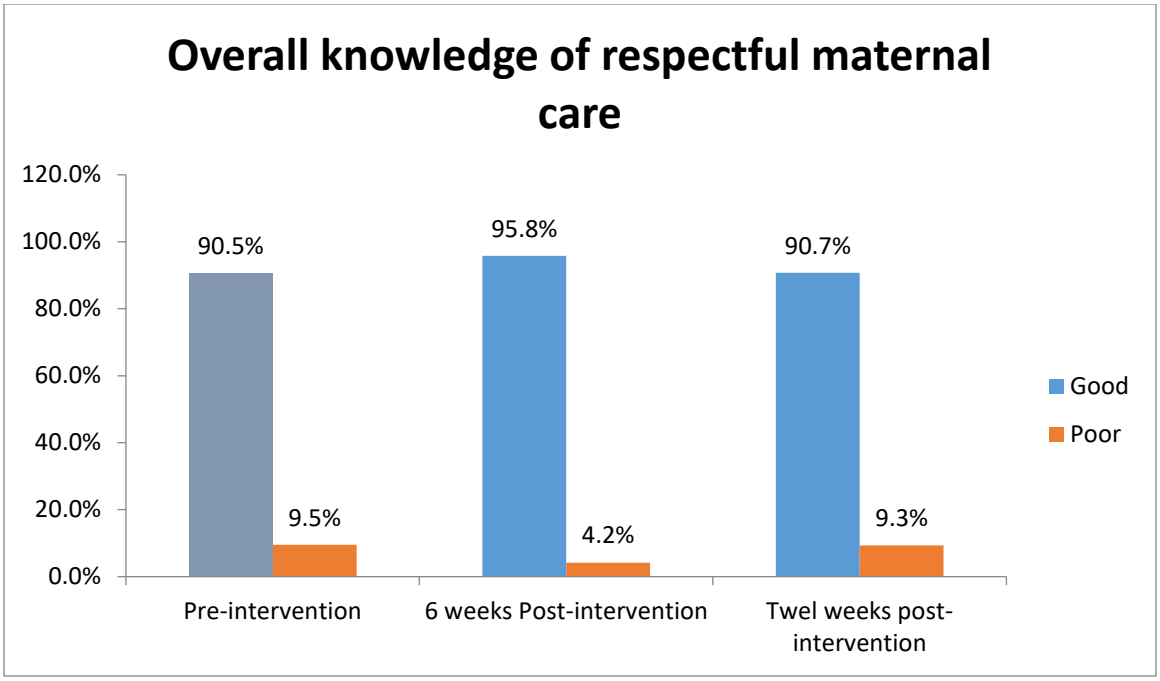

Figure 1: Respondents' overall knowledge of respectful maternal care

Figure 1 shows that knowledge of respondents was relatively high across all intervention groups but higher at six-weeks post-intervention (95.8%)

Table 3: Mean composite score of practice of respectful maternal care by domains

	Pre-intervention		**6 weeks Post-intervention**		**12 weeks post-intervention**	
	Mean	**Std. Deviation**	**Mean**	**Std. Deviation**	**Mean**	**Std. Deviation**
Practice of emotional care	49.227	9.16	56.285	10.69	53.729	9.58
Practice of providing care	33.282	5.12	36.631	4.64	34.402	5.04
Practice of preventive mistreatment	10.205	3.126	11.588	2.72	10.921	2.36

Table 3 shows the mean distribution of each domain of respectful maternal care practice. The mean practice of emotional care was 49.227, which increased to 56.285 at six weeks post-intervention and decreased slightly to 53.729 12 weeks post-intervention. Similarly, the practice of providing care was 33.282, which increased to 36.631 at six weeks post-intervention, and decreased slightly to 34.402 12 weeks post-intervention, and the same with knowledge of preventing mistreatment, 10.205 at pre-intervention, 11.588 six weeks post-intervention, and 10.921 12 weeks post-intervention

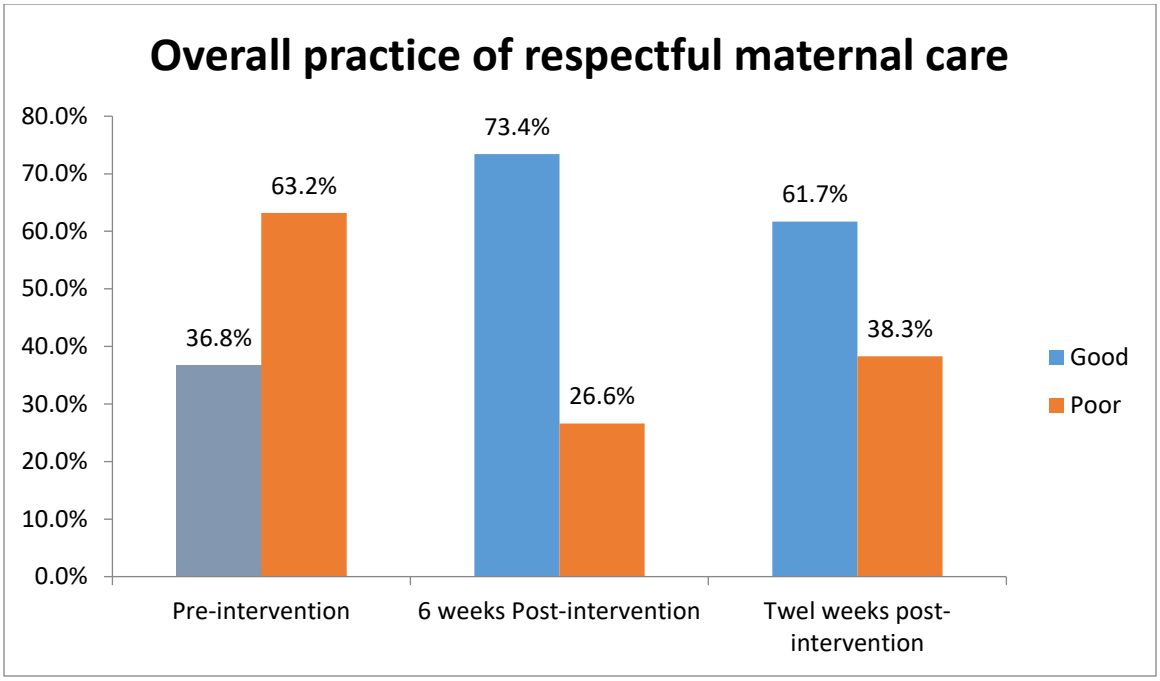

Figure 2: Respondents' overall practice of respectful maternal care

Figure 2 shows respondents' overall practice of respectful maternal care. Slightly higher than one-third of the respondents had good practice at pre-intervention which increased to 73.4% at six weeks post-intervention and dropped to 61.7% at twelve weeks post-intervention.

Table 4a: Difference in respondents Knowledge of respectful maternal care

	Knowledge of respectful maternal care	**Statistics (Friedman Test)**
P0		X^2=106.647
Mean	17.424	P<0.001
P1		
Mean	20.880	
P2		
Mean	19.608	

Po---Pre-intervention, P1---Six weeks post-intervention, P2--- Twelve weeks post-intervention

Table 4b: Posy-hoc test on knowledge of respectful maternal care across the intervention stage

	Practice of respectful maternal care	**Statistics (Wilcoxon Test)**
P0 mean	17.424	z=-8.666
P1 mean	20.880	P<0.001
P0 mean	17.424	z=-5.741
P2 mean	19.608	P<0.001
P1 mean	20.880	z=-5.847
P2 mean	19.608	P<0.001

Po---Pre-intervention, P1---Six weeks post-intervention, P2--- Twelve weeks post-intervention

Table 4a shows the mean difference in respondents' overall knowledge of respectful maternal care. The mean knowledge score was 17.424 at the pre-intervention stage, which increased to 20.880 at six weeks post-intervention, indicating a substantial improvement in knowledge following the intervention. However, by twelve weeks post-intervention, the mean knowledge score slightly declined to 19.608, though it remained higher than the pre-intervention level ($X^2 = 106.647$, $p < 0.001$). Overall, there was a significant increase in knowledge of respondents at 6 weeks post-intervention and 12 weeks post intervention compared to the pre-intervention and there was a higher knowledge score 6 weeks post-intervention compared to 12-weeks post-intervention as shown in table 4b.

Table 5a: Difference in respondents' practice of respectful maternal care

	Practice of respectful maternal care	**Statistics (Friedman Test)**
P0		X^2=125.186
Mean	92.373	P<0.001
P1		
Mean	104.484	
P2		
Mean	99.092	

Po---Pre-intervention, P1---Six weeks post-intervention, P2--- Twelve weeks post-intervention

Table 5b: Post-hoc test on practice of maternal care across the intervention stages

	Practice of respectful maternal care	**Statistics (Wilcoxon Test)**
P0 mean	92.373	z=-7.917
P1 mean	104.484	P<0.001
P0 mean	92.373	z=-5.349
P2 mean	99.092	P<0.001
P1 mean	104.484	z=-9.866
P2 mean	99.092	P<0.001

Po---Pre-intervention, P1---Six weeks post-intervention, P2--- Twelve weeks post-intervention

Table 5a shows the mean difference in respondents' overall practice of respectful maternal care. The mean practice score was 92.373 at the pre-intervention stage, which increased to 104.484 at six weeks post-intervention, indicating a substantial improvement in knowledge following the intervention. However, by twelve weeks post-intervention, the mean practice score slightly declined to 99.092, though it remained higher than the pre-intervention level ($X^2 = 125.186$, $p < 0.001$). Overall, there was a significant increase in practice of respondents at 6 weeks post-intervention and 12 weeks post intervention compared to the pre-intervention and there was a higher practice score 6 weeks post-intervention compared to 12-weeks post-intervention as shown in table 5b.

Discussion

This study assessed the impact of an educational intervention on nurses' knowledge and practice of respectful maternity care in North Central, Nigeria. It employed a quasi-experimental one-group design across the three senatorial districts in Kwara State.

The sociodemographic profile of participants in this study reveals that a significant proportion were young adults aged 20–29 (47.3%). This age distribution suggests that many of the nurses are relatively early in their professional careers, a finding consistent with prior research in Nigeria where younger age groups dominate the nursing workforce, especially in public health institutions (Adeloye et al., 2017). The predominance of female participants (87.7%) aligns with global and regional trends in the nursing profession,

which remains largely female-dominated due to traditional gender roles and social expectations (World Health Organization, 2020). The majority of participants identified as Christians (72.3%) and Yoruba (91.8%), reflecting the religious and ethnic demographics of North Central Nigeria, particularly in states with Yoruba-speaking populations. This is similar to the findings by Kalu & Udeorah, (2018), who reported a strong presence of Yoruba nurses in the Southwestern and parts of the North Central zones. Most respondents were married (58.6%), which could influence their caregiving approaches and empathy levels, a factor relevant to the practice of respectful maternity care(Kalu & Udeorah, 2018). Marital status has been associated with emotional stability and commitment to healthcare delivery (Noel et al., 2024). Regarding educational qualification, the majority held a Bachelor of Nursing Science (BNSc) degree (60.5%), indicating a relatively high academic qualification among the participants. This is encouraging, as higher academic training has been linked with better implementation of evidence-based practices, including respectful maternity care (Bulto et al., 2020). Furthermore, 39.5% of the nurses had less than five years of experience, while 36.4% had between 5–10 years, indicating that the workforce is relatively young and mid-level in experience. This level of experience is critical in adapting to new clinical practices, including educational interventions that aim to improve respectful care (Utalo et al., 2024).

Knowledge of the Domain of Respectful Maternity Care

The study also showed the mean knowledge scores of the respondents. Notably, knowledge in emotional care increased significantly from 8.464 pre-intervention to 10.570 at six weeks post-intervention, before slightly declining to 9.804 at 12 weeks. This showed that intervention is effective in enhancing awareness of empathetic communication and emotional support, which is a core component of RMC. Similar patterns of knowledge retention and slight decline over time have been observed in other studies, emphasizing the need for periodic refresher training to sustain improvements (Shakibazadeh et al., 2017). For the provision of care, mean knowledge rose from 6.850 to 7.757 and then slightly reduced to 7.355 at 12 weeks. This aligns with findings by (Afulani, Phillips, et al., 2019), who reported that structured training can improve provider understanding of timely and evidence-based maternity care, though continuous reinforcement is necessary to maintain gains. In the prevention of mistreatment domain, knowledge increased modestly from 2.186 to 2.528 at six weeks post-intervention, with a slight decline to 2.439 at 12 weeks. While the improvement was smaller compared to other domains, it highlights a positive shift in recognizing and addressing disrespect and abuse during childbirth. Mistreatment is often normalized in some settings and requires sustained educational and policy-level efforts to change attitudes; hence, a concerted effort to see that there is an increase in the knowledge of the prevention of mistreatment cannot be overemphasized (Bohren et al., 2015).

The study also revealed the respondents' overall knowledge of respectful maternity care. The finding of the study underscores the effectiveness of educational intervention in enhancing nurses' understanding of RMC principles in the short term. Comparable results have been documented in similar intervention studies. For instance, a study by Abuya et al. (2015) in Kenya demonstrated significant knowledge gains among maternity care providers following targeted training on respectful care, with improved provider behavior observed within weeks of the intervention (Abuya et al., 2015). Likewise, Afulani, Aborigo, et al. (2019) reported substantial improvements in knowledge and attitudes among healthcare workers in Ghana after a comprehensive RMC training program, supporting the view that structured education can rapidly elevate awareness and preparedness to deliver dignified care (Afulani, Aborigo, et al., 2019). The peak observed at six weeks in this study is consistent with learning retention curves, which suggest optimal knowledge retention within the first month post-training before slight declines occur without reinforcement (Sapri et al., 2022). Therefore, the increase in knowledge at six weeks post-intervention affirms the immediate impact of educational programs on healthcare provider competence in RMC and

highlights the need for ongoing support and follow-up training to sustain these gains over time.

Practice of the Domain of Respectful Maternity Care

The results show marked improvement in nurses' practice of respectful maternity care following the intervention, with scores peaking at six weeks post-intervention and slightly declining by 12 weeks. This pattern was consistent across emotional care, provision of care, and prevention of mistreatment. The emotional care domain, which reflects how nurses connect empathetically with patients, rose from a baseline mean of 49.227 to 56.285 at six weeks post-intervention—an indication that the training successfully enhanced their sensitivity and communication. The slight drop to 53.729 by the 12th week suggests that without ongoing support, these improvements may diminish over time. This is similar to the findings of Afulani, Phillips, et al., (2019) who reported that respectful behaviors improved shortly after training but declined without continuous supervision or reinforcement (Afulani, Phillips, et al., 2019). For the provision of care domain—covering timely responses, consent, and patient autonomy—the score increased from 33.282 to 36.631, before falling to 34.402. Strategically, while knowledge can be translated into better practices at preliminary stages, sustaining such behaviors is sometimes difficult, possibly due to systemic barriers like staff shortages or institutional norms. This aligns with the findings of (Abuya et al., 2015) which reported that despite improvements in provider behavior post-intervention in Kenya, external factors such as facility culture limited long-term change (Abuya et al., 2015). The prevention of mistreatment domain, though lower in absolute values, followed the same pattern—rising from 10.205 to 11.588, then reducing to 10.921. Notably, while training helped reduce harmful practices such as shouting or neglect, ingrained habits and institutional tolerance of mistreatment likely influenced slight relapse. Also, it must be stated that educational efforts alone may not fully eradicate mistreatment unless they are backed by policy enforcement and cultural change within health facilities (Bohren et al., 2015).

The findings of the respondents' overall practice of respectful maternity care highlighted a significant behavioral shift following the educational intervention. At baseline, just over one-third of respondents exhibited good RMC practices, reflecting the entrenched challenges in Nigeria's maternity care environment, such as normalization of disrespect, insufficient training, and systemic desensitization to women's needs during childbirth. The sharp increase to 73.4% at six weeks post-intervention is notable and reflects the immediate cognitive and behavioral impact of structured education. This aligns with social learning theory, which posits that exposure to new knowledge and modeled behavior can quickly influence practice, especially when supported by motivation and opportunity (Bandura, 2006). Nurses were likely empowered with new communication tools, ethical clarity, and a renewed understanding of women's rights in care, which thus affects their level of handedness (practices) (Iwaola et al., 2021). However, the decline to 61.7% at 12 weeks, though still an improvement from baseline, points to a fragile behavioral shift that is vulnerable to regression without sustained reinforcement. This mirrors the findings of a study done in Tanzania, where respectful care practices initially improved after training, but gradually declined due to poor supervisory follow-up, conflicting facility norms, and lack of peer accountability structures (Ratcliffe et al., 2016). More critically, the drop also suggests that behavior change in RMC is not purely knowledge-dependent—it is deeply influenced by the organizational climate. Without leadership support, workload adjustments, and a facility culture that values dignity in care, even the most motivated health workers may revert to routine, and sometimes disrespectful, practices. Significantly, the emphasis is that health system constraints such as understaffing and low morale can erode even the best-intentioned interventions (Kruk et al., 2018).

Furthermore, the study's result showed differences in respondents' overall knowledge of RMC and revealed notable improvement in nurses' knowledge of respectful maternity care (RMC) following the educational intervention. The mean knowledge score rose from 17.424 at baseline to 20.880 at six weeks, signaling that the

training significantly boosted participants' understanding of core RMC principles—such as consent, empathy, non-abuse, and equitable treatment. This surge in knowledge illustrates that targeted, context-specific education is a powerful tool for addressing gaps in RMC awareness among maternity care providers. However, the slight drop to 19.608 at twelve weeks, though still meaningfully above the pre-intervention level, suggests that some knowledge may not have been fully retained or reinforced in daily practice. This pattern is not unusual; it reflects what is often seen in adult learning—where knowledge gains tend to taper off over time without continued engagement or practical application (Cepeda et al., 2008). These findings are consistent with studies by Afulani, Aborigo, et al., (2019) and Sando et al., (2016), which both observed immediate post-training improvements in provider knowledge, followed by mild declines weeks later. Their research emphasized that one-off interventions, while impactful in the short term, require periodic refreshers and integration into routine professional development to sustain the learning gains, hence, intervention exercise becomes irrelevant (Afulani, Aborigo, et al., 2019; Sando et al., 2016). The statistically significant change ($X^2 = 106.647$, $p < 0.001$) further confirms that the intervention made a measurable difference. However, to translate this knowledge into consistent practice, health systems must do more than train—they must create environments that reinforce respectful care as the standard. This includes supportive supervision, peer accountability, and embedding RMC into institutional protocols (Ameh et al., 2019).

Additionally, the study showed the differences in respondents' overall practice of RMC and revealed an increase in mean practice scores from 92.373 pre-intervention to 104.484 at six weeks post-intervention reflects more than just numerical change—it indicates a positive shift in the way nurses approached maternity care, likely driven by a renewed sense of empathy, awareness, and professional responsibility instilled by the training. This efflux demonstrates that when nurses are equipped with the right tools, language, and perspective, they are capable of reimagining care delivery in ways that honor dignity and respect. However, the slight decline to 99.092 at twelve weeks is a subtle but important reminder that "knowledge doesn't always guarantee continuity of action", especially in environments where high patient loads, institutional inertia, and emotional fatigue are part of daily reality (Abuya et al., 2015). Unlike some studies that view post-intervention drops as failure points, this pattern should be interpreted more constructively. For instance, Balde et al., (2017) found that while respectful care interventions in Guinea led to improved provider behaviors, sustainability hinged on whether leadership reinforced the values daily, not just at the training table (Balde et al., 2017). Similarly, Afulani & Moyer, (2019) emphasized that enduring change requires a blend of skills-building, reflective practice, and an enabling environment—not just a well-delivered workshop (Afulani & Moyer, 2019). The statistically significant result ($X^2 = 125.186$, $p < 0.001$) affirms that the intervention had lasting value, but it also challenges us to rethink how we support healthcare providers. Ongoing improvement in RMC requires more than knowledge—it demands mentorship, feedback loops, and a workplace culture where respect is expected, not exceptional.

Strength of the Study

One of the strengths of this study is that it employed a primary method of data collection which affords a detailed and inclusive curation of data from patients and gives a feel of the state of things in the various hospitals utilized. Primary data offers more up-to-date information about a population compared to secondary data; hence, a level of timeliness of the report of this study. More so, the study was able to give an overview of the state of the knowledge and practice of respectful maternity care among nurses in North Central Nigeria, which has not been in the past years. This study conducted, it has opened up a path of exploration for researchers and scholars to delve into examining and investigating nurses' knowledge and practice of RMC in the North Central region of Nigeria. In addition, this study did a comprehensive investigation of the impact of educational interventions on the knowledge and practice of respectful maternity care among

nurses in the North Central region of Nigeria, which has not been the case for studies conducted in past years within the borders of North Central Nigeria.

Limitations of the Study

Considering the limitations of the study. One of the limitations is the acuteness of studies on educational interventions on knowledge and practice of RMC in the North Central region of Nigeria. The dearth of literature to examine the concept of RMC within the context of the North Central region was one of the major challenges experienced in writing this paper. Additionally, the study was also limited in terms of coverage. This study was only able to cover one state – Kwara in the North Central region of Nigeria, and also a selected portion out of the number of tertiary hospitals we have within the region. This limitation is a result of funding and resources needed to cover a large sample and study location.

Conclusion

The findings of this study indicate a predominantly young and female nursing workforce, reflective of current national and global trends in nursing. The high proportion of BNSc holders suggests a well-educated sample, which may enhance the uptake of evidence-based maternal care practices. The dominance of Yoruba ethnicity and Christianity aligns with the cultural context of North Central Nigeria. Most nurses were either early or mid-career professionals, a factor that may support adaptability to new care standards. Marital status distribution may also play a role in shaping caregiving attitudes and emotional engagement. Collectively, these characteristics offer a favorable profile for implementing and sustaining respectful maternity care interventions. Also, educational intervention led to a significant improvement in nurses' knowledge of respectful maternity care, as reflected in increased mean scores post-intervention. Although there was a slight decline at twelve weeks, knowledge remained above baseline, indicating retention over time. This suggests that structured training effectively enhances awareness of respectful care principles. The initial gains may be attributed to the novelty and relevance of the training content. The gradual decline implies a need for reinforcement to sustain learning. Overall, the results confirm the potential of education as a key driver of knowledge improvement in maternity care settings. More so, this study found intervention significantly improved nurses' practice of respectful maternity care, with mean scores rising at six weeks post-intervention. A mild drop by twelve weeks suggests a partial decline in sustained application, although practice levels remained higher than at baseline. This indicates that while training can change behavior, continued support is essential. The improvements reflect increased empathy, communication, and care standards in post-training periods. The slight regression underscores the influence of work environment and institutional factors. The findings of the study thus highlight the need for ongoing mentorship and systemic support to sustain respectful maternity care practices.

Recommendations

The outcomes of this study underscore the effectiveness of educational interventions in improving nurses' knowledge and practice of respectful maternity care (RMC) within North Central Nigeria. Given the notable improvement post-intervention, it is recommended that state health ministries in the region, particularly in states with similar demographic and institutional structures, adopt structured, periodic RMC training programs for all maternity nurses. These trainings should be tailored to the realities of local health facilities, taking into account the predominantly young, female, and ethnically Yoruba nursing workforce. This will ensure relevance, cultural sensitivity, and improved implementation. In light of the sociodemographic profile showing a relatively young and well-educated nursing workforce, healthcare institutions, particularly in North Central Nigeria should leverage this adaptability by integrating respectful maternity care modules into pre-service nursing curricula and orientation programs for new staff. Such integration will ensure that RMC principles are embedded early in professional development and remain a consistent standard of care. Additionally, in-

service training programs should be supported with structured mentorship and supportive supervision that encourage accountability and model respectful behavior in clinical settings. For future research, it is recommended that studies should explore the long-term sustainability and system-wide integration of respectful maternity care practices among nurses in North Central Nigeria, particularly examining the role of organizational culture, supervision, and resource availability in maintaining post-intervention gains. Longitudinal studies that track behavioral change beyond twelve weeks, including client feedback and maternal health outcomes, would provide deeper insights into the effectiveness and durability of such interventions. Additionally, comparative studies across different geopolitical zones could help identify region-specific barriers and facilitators to implementing respectful maternity care at scale.

References

Abdulganiyu, Salami, and Adofu Ilemona. 2021. "Exploring Women's Experiences, Maternal Practices and Problems in the Utilization of Maternal Health Services in Kwara State, Nigeria: A Qualitative Study". Asian Journal of Pregnancy and Childbirth 3 (1):217-24. https://doi.org/10.9734/ajpcb/2020/v3i140

Abuya, T., Warren, C. E., Miller, N., Njuki, R., Ndwiga, C., Maranga, A., Mbehero, F., Njeru, A., & Bellows, B. (2015). Exploring the prevalence of disrespect and abuse during childbirth in Kenya. *PLoS ONE*, *10*(4), e0123606. https://doi.org/10.1371/journal.pone.0123606

Adeloye, D., David, R. A., Olaogun, A. A., Auta, A., Adesokan, A., Gadanya, M., Opele, J. K., Owagbemi, O., & Iseolorunkanmi, A. (2017). Health workforce and governance: the crisis in Nigeria. *Human Resources for Health*, *15*(1). https://doi.org/10.1186/s12960-017-0205-4

Afulani, P. A., Aborigo, R. A., Walker, D., Moyer, C. A., Cohen, S., & Williams, J. (2019). Can an integrated obstetric emergency simulation training improve respectful maternity care? Results from a pilot study in Ghana. *Birth*, *46*(3), 523–532. https://doi.org/10.1111/birt.12418

Afulani, P. A., & Moyer, C. A. (2019). Accountability for respectful maternity care. *The Lancet*, *394*(10210), 1692–1693. https://doi.org/10.1016/S0140-6736(19)32258-5

Afulani, P. A., Phillips, B., Aborigo, R. A., & Moyer, C. A. (2019). Person-centred maternity care in low-income and middle-income countries: analysis of data from Kenya, Ghana, and India. *The Lancet Global Health*, *7*(1), e96–e109. https://doi.org/10.1016/s2214-109x(18)30403-0

Ameh, C. A., Mdegela, M., White, S., & Van Den Broek, N. (2019). The effectiveness of training in emergency obstetric care: A systematic literature review. *Health Policy and Planning*, *34*(4), 257–270. https://doi.org/10.1093/heapol/czz028

Aregbeshola, B. (2019). Health care in Nigeria: Challenges and recommendations. *Policy Brief No32*.

Balde, M. D., Bangoura, A., Diallo, B. A., Sall, O., Balde, H., Niakate, A. S., Vogel, J. P., & Bohren, M. A. (2017). A qualitative study of women's and health providers' attitudes and acceptability of mistreatment during childbirth in health facilities in Guinea. *Reproductive Health*, *14*(1), 1–13. https://doi.org/10.1186/s12978-016-0262-5

Balde, M. D., Nasiri, K., Mehrtash, H., Soumah, A. M., Bohren, M. A., Diallo, B. A., Irinyenikan, T. A., Maung, T. M., Thwin, S. S., Aderoba, A. K., Vogel, J. P., Mon, N. O., Adu-Bonsaffoh, K., & Tunçalp, Ö. (2020). Labour companionship and women's experiences of mistreatment during childbirth: Results from a multi-country community-based survey. *BMJ Global Health*, *5*(Suppl 2), e003564. https://doi.org/10.1136/bmjgh-2020-003564

Bandura, A. (2006). Self-efficacy: Toward a Unifying Theory of Behavioral Change. In *Self-efficacy beliefs of adolescents* (Vol. 84, Issue 2, pp. 307–337).

Bohren, M. A., Vogel, J. P., Hunter, E. C., Lutsiv, O., Makh, S. K., Souza, J. P., Aguiar, C., Coneglian, F. S., Diniz, A. L. A., Tunçalp, Ö., Javadi, D., Oladapo, O. T., & Gülmezoglu, A. M. (2015). The mistreatment of women during childbirth in health facilities globally:

A mixed-methods systematic review. *PLoS Medicine*, *12*(6), e1001847. https://doi.org/10.1371/journal.pmed.1001847

Bohren, M. A., Vogel, J. P., Tunçalp, Ö., Fawole, B., Titiloye, M. A., Olutayo, A. O., Ogunlade, M., Oyeniran, A. A., Osunsan, O. R., Metiboba, L., Idris, H. A., Alu, F. E., Oladapo, O. T., Gülmezoglu, A. M., & Hindin, M. J. (2017). Mistreatment of women during childbirth in Abuja, Nigeria: A qualitative study on perceptions and experiences of women and healthcare providers. *Reproductive Health*, *14*(1), 9. https://doi.org/10.1186/s12978-016-0265-2

Aregbeshola, B. (2019). Health care in Nigeria: Challenges and recommendations. *Policy Brief No32*.

Bulto, G. A., Demissie, D. B., & Tulu, A. S. (2020). Respectful maternity care during labor and childbirth and associated factors among women who gave birth at health institutions in the West Shewa Zone, Oromia Region, Central Ethiopia. *BMC Pregnancy and Childbirth*, *20*, 443. https://doi.org/10.1186/s12884-020-03135-z

Cepeda, N. J., Vul, E., Rohrer, D., Wixted, J. T., & Pashler, H. (2008). Spacing effects in learning: A temporal ridgeline of optimal retention: Research article. *Psychological Science*, *19*(11), 1095–1102. https://doi.org/10.1111/j.1467-9280.2008.02209.x

Esan, O. T. (2022). *Improving readiness for change to respectful maternity care practice in public health facilities, Ibadan, Nigeria* [Doctoral dissertation, University of Ibadan].

Ijadunola, M. Y., Olotu, E. A., Oyedun, O. O., Ilesanmi, K. S., Adebayo, O. O., & Esimai, O. A. (2019). Lifting the veil on disrespect and abuse in facility-based childbirth care: Findings from South West Nigeria. *BMC Pregnancy and Childbirth*, *19*, 39. https://doi.org/10.1186/s12884-019-2188-8

Fasiku, M. M., Durowade, K. A., Osinubi, M. O., Akande, T. M., Osagbemi, G. K., Salaudeen, A. G., Oloyede, T. A., & Ayoola, V. O. (2018). Utilization of maternal health services and its determinants among mothers attending primary health care clinics in Kwara State, Nigeria. Research Journal of Health Sciences, 6(3), 121–132. https://rjhs.org/index.php/home/article/view/181

Ishola, F., Owolabi, O., & Filippi, V. (2017). Disrespect and abuse of women during childbirth in Nigeria: A systematic review. *PLoS ONE*, *12*(3), e0174084. https://doi.org/10.1371/journal.pone.0174084

Iwaola, O. M., Sowunmi, C. O., Olatubi, M. I., & Ogbeye, G. B. (2021). Influence of nursing interventions in improving midwives' knowledge of misoprostol use in the management of postpartum haemorrhage at selected hospitals in Ondo State, Nigeria. *Pan African Medical Journal*, *40*. https://doi.org/10.11604/pamj.2021.40.238.18474

Kalu, I., & Udeorah, S. A. F. (2018). *Labour Crises in the Health Sector and Economic Development in Nigeria*. *3*(2), 91–102.

Kruk, M. E., Kujawski, S., Mbaruku, G., Ramsey, K., Moyo, W., Moyo, W., & Freedman, L. P. (2018). Disrespectful and abusive treatment during facility delivery in Tanzania: A facility and community survey. *Health Policy and Planning*, *33*(1), e26–e33. https://doi.org/10.1093/heapol/czu079

Kruk, M. E., Gage, A. D., Arsenault, C., Jordan, K., Leslie, H. H., Roder-DeWan, S., Adeyi, O., Barker, P., Daelmans, B., Doubova, S. V., English, M., Elorrio, E. G., Guanais, F., Gureje, O., Hirschhorn, L. R., Jiang, L., Kelley, E., Lemango, E. T., Liljestrand, J., … Pate, M. (2018). High-quality health systems in the Sustainable Development Goals era: time for a revolution. *The Lancet Global Health*, *6*(11), e1196–e1252. https://doi.org/10.1016/S2214-109X(18)30386-3

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

National Population Commission (NPC) [Nigeria], & ICF. (2019). *Nigeria demographic and health survey 2018*. NPC and ICF. https://dhsprogram.com/publications/publication-fr359-dhs-final-reports.cfm

Noel, N. B., Bulus, N. G., Nkala, C. A., &

Envuladu, E. A. (2024). Perception and Attitude of Health Care Workers in Tertiary Health Care Facilities in Plateau State, Nigeria towards Sexual and Reproductive Health Services for Unmarried Adolescents. *International Journal of Emerging Multidisciplinaries: Biomedical and Clinical Research*, *2*(1), 1–8. https://doi.org/10.54938/ijemdbmcr.2024.02.1.259

Okafor, I. I., Ugwu, E. O., & Obi, S. N. (2015). Disrespect and abuse during facility-based childbirth in a low-income country. *International Journal of Gynecology & Obstetrics*, *128*(2), 110–113. https://doi.org/10.1016/j.ijgo.2014.08.015

Okedo-Alex, I. N., Akamike, I. C., Ezeanosike, O., Uneke, C. J., & Chukwu, N. E. (2020). Multi-stakeholder perspectives on the maternal, provider, institutional, community, and policy drivers of disrespectful maternity care in South-East Nigeria. *International Journal of Women's Health*, *12*, 1145–1159. https://doi.org/10.2147/IJWH.S276201

Ratcliffe, H. L., Sando, D., Mwanyika-Sando, M., Chalamilla, G., Langer, A., & McDonald, K. P. (2016). Applying a participatory approach to the promotion of a culture of respect during childbirth. *Reproductive Health*, *13*, 80. https://doi.org/10.1186/s12978-016-0186-0

Ratcliffe, H. L., Sando, D., Lyatuu, G. W., Emil, F., Mwanyika-Sando, M., Chalamilla, G., Langer, A., & McDonald, K. P. (2016). Mitigating disrespect and abuse during childbirth in Tanzania: An exploratory study of the effects of two facility-based interventions in a large public hospital. *Reproductive Health*, *13*(1), 1–13. https://doi.org/10.1186/s12978-016-0187-z

Sando, D., Abuya, T., Asefa, A., Banks, K. P., Freedman, L. P., Kujawski, S., Markovitz, A., Ndwiga, C., Ramsey, K., Ratcliffe, H., Ugwu, E. O., Warren, C. E., & Jolivet, R. R. (2017). Methods used in prevalence studies of disrespect and abuse during facility-based childbirth: Lessons learned. *Reproductive Health*, *14*, 127. https://doi.org/10.1186/s12978-017-0389-z

Sando, D., Ratcliffe, H., McDonald, K., Spiegelman, D., Lyatuu, G., Mwanyika-Sando, M., Emil, F., Wegner, M. N., & Langer, A. (2016). The prevalence of disrespect and abuse during facility-based childbirth in urban Tanzania. *BMC Pregnancy and Childbirth*, *16*(1), 1–10. https://doi.org/10.1186/s12884-016-1019-4

Sapri, N. D., Ng, Y. T., Wu, V. X., & Klainin-Yobas, P. (2022). Effectiveness of educational interventions on evidence-based practice for nurses in clinical settings: A systematic review and meta-analysis. *Nurse Education Today*, *111*(April), 1–8. https://doi.org/10.1016/j.nedt.2022.105295

Shakibazadeh, E., Namadian, M., Bohren, M. A., Vogel, J. P., Rashidian, A., Nogueira Pileggi, V., Madeira, S., Leathersich, S., Tunçalp, Ö, Oladapo, O. T., Souza, J. P., & Gülmezoglu, A. M. (2017). Respectful care during childbirth in health facilities globally: a qualitative evidence synthesis. *BJOG: An International Journal of Obstetrics & Gynaecology*, *125*(8), 932–942. https://doi.org/10.1111/1471-0528.15015

Utalo, D., Israel, E., Lenjebo, T. L., Aynalem, A., & Darebo, T. D. (2024). Determinants of respectful maternity care among women who gave childbirth in Southern Ethiopia. *BMC Health Services Research*, *24*(1), 1–9. https://doi.org/10.1186/s12913-024-10813-7

Warren, C., Njuki, R., Abuya, T., Ndwiga, C., Maingi, G., Serwanga, J., Mbehero, F., Muteti, L., Njeru, A., Karanja, J., Olenja, J., Gitonga, L., Rakuom, C., & Bellows, B. (2013). Study protocol for promoting respectful maternity care initiative to assess, measure and design interventions to reduce disrespect and abuse during childbirth in Kenya. *BMC Pregnancy and Childbirth*, *13*, 21. https://doi.org/10.1186/1471-2393-13-21

World Health Organization. (2020). State of the World's Nursing Report-2020. In *Https://Www.Who.Int/China/News/Detail/07-04-2020-World-Health-Day-2020-Year-of-the-Nurse-and-Midwife*. file:///C:/Users/Rosa/Desktop/tesis 222/9789240003279-eng estado de enfermeria 2020 oms.pdf

World Health Organization. (2018). *WHO recommendations: Intrapartum care for a positive childbirth experience*. https://pubmed.ncbi.nlm.nih.gov/30070803/

World Health Organization. (2023). *Trends in maternal mortality: 2000 to 2020*. https://www.who.int/publications/i/item/9789240069251