



## Is the Training, Knowledge, and Perception of Maternal Health Providers Adequate for the Provision of Respectful Maternity Care? Policy Implications for Practice in a Nigerian Tertiary Hospital

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### Abstract

**Background:** Health providers play pivotal roles in achieving respectful maternity care (RMC). This study assessed the training, knowledge, and perception of respectful maternity care among maternal health providers in a Nigerian tertiary hospital.

**Methodology:** This was across-sectional study conducted among 156 maternal health providers in Ebonyi Nigeria. Self-administered questionnaires were used for data collection.

**Results:** The respondents had a mean age of 31.97±6.8 years. Females constituted 35.9% of the respondents while 25.6% were midwives. Less than half had received undergraduate (48.7%) and postgraduate (42.3%) training on RMC. The majority were aware (72.4%) and had good knowledge (78.8%) of respectful maternity care. Medical books (33.3%) was the major source of information on RMC. Most respondents (90.4%) desired more education on RMC. Over four-fifths (82.1%) had a positive perception of RMC. Only 27.6% of respondents agreed that mistreatment during childbirth was a common phenomenon in their clinical practice context. About three-fourths (76.6%) did not agree that mistreatment during childbirth was harmful to maternal health. Undergraduate training on RMC (AOR=0.33, 95% CI=0.13-0.81), postgraduate training on RMC (AOR=0.30, 95% CI=0.11-0.82) and higher monthly income (AOR=0.20, 95% CI=0.05-0.88) were predictors of awareness of RMC. Knowledge of RMC was a predictor of perception about RMC (AOR=0.29, 95% CI=0.11-0.71).

**Conclusion:** There was good awareness, knowledge and perception of RMC predicted by training exposures and income status. However, gaps existed in the perception of the occurrence and consequences of mistreatment during childbirth. We recommend the inclusion of RMC training in both undergraduate and postgraduate medical training curricula.

**Keywords:** Respectful Maternity Care; Childbirth; Mistreatment; Maternal Health; Nigeria.

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### Quick Response Code:



## **Introduction**

All births must be attended by skilled health professionals, as timely management and treatment can make the difference between life and death. Most Skilled Birth Attendants (SBAs) are found in health facilities that offer maternal and child health services hence a growing emphasis on facility-based childbirth. Facility-based childbirth plays a major role in preventing avoidable maternal deaths because SBAs are equipped with the requisite skills to manage complications that may arise during childbirth as well as provide referrals where needed.

Respectful and dignified care significantly impacts on utilization of health facilities for childbirth in addition to improving the adoption of rights-based approaches in the provision of other maternal health services. Successful elimination of preventable maternal mortality and morbidity in low-and-middle-income countries through increased skilled birth attendance requires improved quality and experience of care. Studies conducted among mothers have identified poor staff attitude and mistreatment by health providers as barriers to facility-based childbirth. –Conversely, non-skilled birth care has been favoured by mothers because of the good staff attitude.

Respectful Maternity Care emphasizes the absence of disrespect and abuse by health care providers and the health system in general. It advocates for support staff attitudes and health systems that improve positive birth experiences. It represents a pronounced global commitment among others to address the poor quality of maternity services and consequently impact positively on the utilization of maternal health services, maternal morbidity, and mortality to achieve the maternal and child health targets of agenda 2030.

Health providers play pivotal roles in breaking the cycle of mistreatment of women during childbirth and every woman has the right to a positive birth experience and compassionate care from knowledgeable skilled providers. Although studies have reported varying degrees of disrespect and abuse (D&A) during childbirth in health facilities. Only a few studies have quantitatively explored the knowledge and perceptions of respectful maternity care among a professional mix of obstetric providers. Poor knowledge and negative attitude towards the implementation of respectful maternity care may affect health provider-related mistreatment of women during childbirth. This study aimed to assess the training, knowledge, and perception of respectful maternity care among maternal health providers in a tertiary hospital in South-east Nigeria.

## **Materials and Methods**

### **Study Area**

This study was conducted in Abakaliki, the capital city of Ebonyi State, located in South-eastern Nigeria. The State lies between 7°03'N 504°E latitude with a landmass approximated at 5,932 square kilometres and has 13 Local Government Areas (LGAs). Infants constitute 4%, the under-five children 20%, and women of childbearing age 22% of the population. The major occupation of the Ebonyi people is agriculture.

The study was carried out in a public multi-specialist teaching hospital in Abakaliki, Ebonyi State. The hospital acts as a referral centre for specialized health care services both within and outside the State. Maternal health services are chiefly provided by the Department of Obstetrics and Gynecology (O&G) which consists of doctors (consultants, resident doctors, interns), and midwives. There were about 69 midwives, 40 consultants, 80 resident doctors, and 38 interns in the O&G department during the study period. An average of one hundred and fifty babies are born in the hospital monthly.

### **Study Design**

This was a cross-sectional study.

### **Study Population**

The study participants were doctors (resident doctors and interns) and midwives in the O&G Department. Intern doctors who were undergoing or had just finished the three months posting in O&G also participated in the study. The focus on in-training obstetricians, interns, and midwives were because they are usually the first to provide care to pregnant clients who present for childbirth. By job description and care hierarchy, they are also more likely to interact and spend more time with the mothers.

### **Sample Size and sampling.**

Data was collected from 156 health providers who consented to participate in the survey. The formula for a single proportion was used to estimate the minimum sample size after adjusting for a non-response rate of 10%.

### **Data Collection**

Semi-structured, self-administered questionnaires were used to collect the data. The questionnaire collected information on the socio-demographic profile, training on RMC, knowledge of RMC, and perceptions regarding RMC. The knowledge section questions were on the definition of RMC, categories, and effects of mistreatment during childbirth. The definition of RMC was adapted from the White Ribbon Alliance charter on RMC and the WHO statement on prevention and elimination of D&A

during facility-based childbirth. The typology of mistreatment during childbirth in health facilities by Bohren and colleagues was used to define the categories of mistreatment during childbirth. The questions on perception of RMC were adapted from previous studies. After pretesting the questionnaires among other maternal health providers who were different from the study participants, issues identified were addressed and corrected.

## **Data Management**

### **Measurement of Variables**

The socio-demographic characteristics and RMC training status of the respondents were the independent variables while awareness, knowledge, and perception of RMC were the dependent variables. Awareness of RMC: This was assessed using a single question with 'Yes or No' options.

Knowledge of RMC: Thirteen Likert-scale questions were used to assess the knowledge of RMC among the respondents. The questions explored the understanding of RMC and components of mistreatment during childbirth. Each question had five options on a rating scale of 1-5 points and was scored as follows: 1 point=strongly agree; 2 points=disagree; 3 points=indifferent; 4 points=agree and 5 points=strongly agree.

Perception: Ten Likert-scale questions were used to assess the perception of RMC and mistreatment during childbirth. The questions examined the disposition of the respondents towards implementing the components of RMC and meting out disrespect and abuse during childbirth. Each question had five options on a rating scale of 1-5 points and was scored in the following manner: 1 point=strongly agree; 2 points=disagree; 3 points=indifferent; 4 points=agree and 5 points=strongly agree.

To grade the knowledge and perception of RMC, the authors used the Mean Neutral Rating (MNR) of the Likert scale responses as developed at McMaster University Canada by Johnson and Lavis.

Knowledge was classified as good at mean values between 3.50 and 5.00 while values less than 3.50 were categorized as poor. A positive perception was defined as mean values between 3.50 and 5.00 while values less than 3.50 were categorized as negative perception.

## **Statistical Analysis**

Data entry and analysis were performed using the Statistical Package for Social Sciences (IBM-SPSS) for Microsoft Window version 20 software. We calculated frequencies and proportions for categorical variables and means and standard deviations for numerical variables. The findings were presented using frequency tables, text, and charts. We determined the associations between the dependent and independent variables using Chi-square statistics at a 5% level of significance. Binary logistic regression analysis for predictors of awareness, knowledge, and perception towards RMC was performed and the cut-off point for including variables into the regression model was  $p < 0.2$ . The adjusted odds ratio, level of significance, and confidence interval for the independent variables were recorded and interpreted.

## **Results**

### **Socio-demographic characteristics of the respondents**

The respondents had a mean age of  $31.97 \pm 6.8$  years. Females constituted 35.9% of the respondents while 74.4% were doctors. The rest of the participants were midwives (25.6%). Interns and resident doctors constituted 55.8% and 18.6% respectively of the doctors. Slightly over half of the respondents were never married (53.2%) [Table 1].

### **Awareness, training, and sources of information on RMC**

The majority of the respondents (72.4%) were aware of respectful maternity care [Figure 1]. Slightly less than half of the respondents had received focused undergraduate training (48.7%) and postgraduate training (42.3%) on RMC. Most of the respondents (90.4%) desired more education on RMC [Figure 1]. Medical books (33.3%), fellow health workers (30.1%), and training (26.3%) were the major sources of information on RMC among the respondents [Figure 2].

Between the midwives and doctors, there was no statistically significant difference in awareness (midwives: 82.5% vs. doctors: 69.0%;  $p = 0.099$ ), undergraduate training (midwives: 42.5% vs. doctors: 50.9%;  $p = 0.362$ ), and postgraduate training (midwives: 50.0% vs. doctors: 39.7%;  $p = 0.253$ ) on RMC [Table 4].

### **Knowledge of RMC**

Two-fifths of the respondents (42.3%) strongly agreed that RMC is the dignified and abuse-free care given to pregnant women during pregnancy and childbirth. Only 16% and 26.9% strongly agreed and agreed respectively that the fear of mistreatment during childbirth may be a more powerful deterrent to the use of skilled birth care than geographic and financial obstacles. More than half of the respondents (52.6%) strongly agreed that physical abuse was a component of mistreatment during

childbirth. Some of the respondents (42.9%) agreed that health system conditions and constraints were components of mistreatment during childbirth [Table 2].

Overall, most of the respondents (78.8%) had good knowledge of RMC [Figure 3]. There was no statistically significant difference in knowledge of RMC between midwives and doctors (midwives: 72.5% vs. doctors: 81.0%;  $p=0.254$ ) [Table 4].

### Perception of RMC

About half (47.4%) and 28.8% of the respondents disagreed and strongly disagreed respectively that mistreatment during childbirth can harm or even lead to increased deaths of pregnant women. About two-thirds (57.7%) of the respondents strongly disagreed that the provision of adequate pain relief is not an important part of the birth process. Only 27.6% of the respondents agreed that mistreatment during childbirth is common in their clinical practice environment [Table 3].

Overall, 82.1% had a positive perception of respectful maternity care [Figure 3]. There was no statistically significant difference in perception of RMC between midwives and doctors (midwives: 82.5% vs. doctors: 81.9%;  $p=0.932$ ) [Table 4].

### Predictors of awareness and perception of RMC

Undergraduate training on RMC (AOR=0.33, 95% CI=0.13-0.81), postgraduate training on RMC (AOR=0.30, 95% CI=0.11-0.82) and monthly income earning >\$555.6 (AOR=0.20 95% CI=0.05-0.88) were predictors of awareness of respectful maternity care [Table 5].

Good knowledge (AOR=0.29, 95% CI=0.11-0.71) of RMC was a predictor of positive perception about respectful maternity care [Table 6].

Table 1: Socio-demographic characteristics of the respondents

Variable	Frequency	Percent (%)
<b>Age</b> (Mean $\pm$ SD)	31.97 $\pm$ 6.8	
<b>Gender</b>		
Male	100	64.1
Female	56	35.9
<b>Marital status</b>		
Never married	83	53.2
Currently married	68	43.6
Divorced	1	.6
Separated	1	.6
Widowed	3	1.9
<b>Religion</b>		
Christian	156	100
<b>Job designation</b>		
Midwife	40	25.6
Resident doctors	29	18.6
Interdoctors	87	55.8
<b>Average monthly income</b>		
<\$139	4	2.6
\$139.89-\$278	29	18.6
\$279-\$556	82	52.6
\$557-\$833	17	10.9
\$834-\$1111	14	9.0
>\$1111	10	6.4
<b>Average monthly income (2 categories)</b>		
-	115	73.7
>\$555.6	41	26.3
<b>Ever had a child</b>		
No	93	59.6
Yes	63	40.4

Table 2: Knowledge of Respectful Maternity Care and mistreatment during childbirth among the respondents

Variable	Strongly disagree	Disagree	Undecided	Agree	Strongly agree
Respectful maternity care is the dignified and abuse-free care given to pregnant women during pregnancy and childbirth	17(10.9)	3(1.9)	11(7.1)	59(37.8)	66(42.3)
Fear of mistreatment during childbirth may be a more powerful deterrent to the use of skilled birth care than geographic and financial obstacles	14(9.0)	38(24.4)	37(23.7)	42(26.9)	25(16.0)
RMC is a fundamental right of every pregnant woman	20(12.8)	4(2.6)	6(3.8)	43(27.6)	83(53.2)
<b>Components of mistreatment during childbirth</b>					
Physical abuse	12(7.7)	5(3.2)	8(5.1)	49(31.4)	82(52.6)
Non-dignified care	8(5.1)	8(5.1)	11(7.1)	66(42.3)	63(40.4)
Non-consented care/non-confidential care	6(3.8)	10(6.4)	9(5.8)	67(42.9)	64(41.0)
Verbal abuse	7(4.5)	5(3.2)	8(5.1)	63(40.4)	73(46.8)
Stigma and discrimination	7(4.5)	13(8.3)	10(6.4)	60(38.5)	66(42.3)
Abandonment or withholding of care	7(4.5)	13(8.3)	9(5.8)	64(41.0)	63(40.4)
Detention in facilities	9(5.8)	20(12.8)	26(16.7)	61(39.1)	40(25.6)
Failure to meet professional standards of care	7(4.5)	17(10.9)	24(15.4)	70(44.9)	38(24.4)
Poor rapport between women and providers	8(5.1)	10(6.4)	25(16.0)	75(48.1)	38(24.4)
Health system conditions and constraints	8(5.1)	15(9.6)	25(16.0)	67(42.9)	41(26.3)

Table 3: Perception of Respectful Maternity Care and mistreatment during Childbirth among the respondents

Variable	Strongly agree	Agree	Undecided	Disagree	Strongly disagree
Mistreatment during childbirth can harm or even lead to increased deaths of pregnant women	7(4.5)	16(10.3)	14(9.0)	74(47.4)	45(28.8)
The health worker may need to slap or hit a woman during labor/childbirth in order to get her to cooperate	7(4.5)	12(7.7)	12(7.7)	38(24.4)	87(55.8)
It is not wrong to deny food or fluid to women in labor even when not medically wrong')	10(6.4)	23(14.7)	30(19.2)	47(30.1)	46(29.5)
Providing adequate pain relief is not an important part of the birth process	8(5.1)	9(5.8)	11(7.1)	38(24.4)	90(57.7)
Allowing a woman's relative/companion to be with her during labor and childbirth demystifies the birth process and so should not be encouraged	7(4.5)	5(3.2)	20(12.8)	56(35.9)	68(43.6)
Acting unfriendly and using unkind words on a woman in labor will get her to cooperate more than being too nice	10(6.4)	3(1.9)	14(9.0)	47(30.1)	91(58.3)
It is only fair to the system to detain women till they pay their hospital bills in order to keep the system running	11(7.1)	34(21.8)	50(32.1)	35(22.4)	26(16.7)
Providing explanations on procedures to less educated women is not a good use of time as 'they just can't understand'	8(5.1)	8(5.1)	15(9.6)	55(35.3)	70(44.9)
Mistreatment during childbirth is common in your clinical practice environment	21(13.5)	22(14.1)	23(14.7)	71(45.5)	19(12.2)
Current medical training and culture may have promoted disrespectful patient care by assuming a servant/master relationship between patients and health providers	25(16.0)	36(23.1)	24(15.4)	59(37.8)	12(7.7)

Table 4: Comparison of training, awareness, knowledge and perception of respectful maternity care among midwives and doctors in the study

Variable	Midwives (n=40)	Doctors (n=116)	p value
<b>Undergraduate training on RMC</b>			
No	23 (57.5)	57 (49.1)	0.362
Yes	17 (42.5)	59 (50.9)	
<b>Postgraduate training on RMC</b>			
No	20 (50.0)	70 (60.3)	0.253
Yes	20 (50.0)	46 (39.7)	
<b>Aware of RMC</b>			
No	7 (17.5)	36 (31.0)	0.099
Yes	33 (82.5)	80 (69.0)	
<b>Knowledge</b>			
Poor	11 (27.5)	22 (19.0)	0.254
Good	29 (72.5)	94 (81.0)	
<b>Perception of RMC</b>			
Poor	7 (17.5)	21 (18.1)	0.932
Good	33 (82.5)	95 (81.9)	

Table 5: Logistic regression result for predictors of awareness of respectful maternity care

Independent Variable	Adjusted Odds Ratio	95% CI for AOR		P value
		Lower	Upper	
<b>Age (years)</b>				
<32	0.926	0.266	3.231	0.904
>32	1			
<b>Ever had a child</b>				
No	0.660	0.146	2.996	0.591
Yes	1			
<b>Undergraduate training on RMC</b>				
No	0.328	0.133	0.810	0.016*
Yes	1			
<b>Postgraduate training on RMC</b>				
No	0.299	0.110	0.815	0.018*
Yes	1			
<b>Marital status</b>				
Currently unmarried	1.004	0.249	5.241	0.995
Currently married	1			
<b>Job description</b>				
Midwife	1.746	0.582	5.241	0.320
Doctor	1			
<b>Desire more education on RMC</b>				
No	3.772	0.694	20.516	0.124
Yes	1			
<b>Monthly income earning</b>				
≤\$555.6	0.203	0.047	0.881	0.033*
>\$555.6	1			

\*p-value &lt;0.05

Table 6: Logistic regression result for predictors of perception about respectful maternity care

Independent Variable	Adjusted Odds Ratio	95% CI for AOR		P value
		Lower	Upper	
<b>Age (years)</b>				
≤32	0.340	0.565	0.175	1.824
>32				
<b>Monthly income status</b>				
≤\$555.6	0.545	0.133	2.233	0.399
>\$555.6				
<b>Knowledge of RMC</b>				
Poor	0.285	0.114	0.714	0.007*
Good				

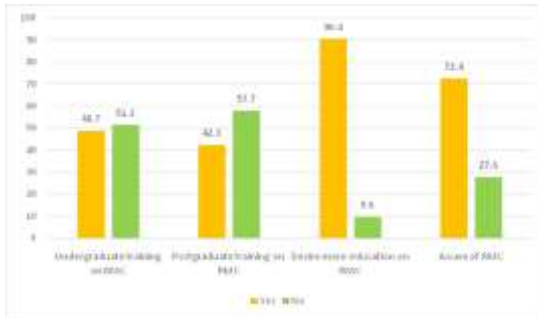


Figure 1: Training, awareness and desire for more education on RMC

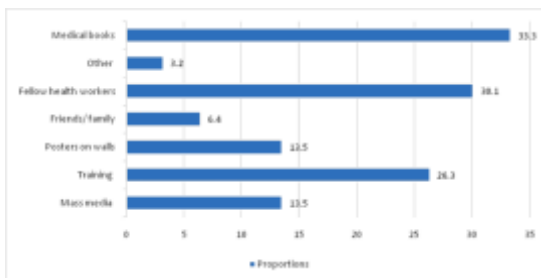


Figure 2: Sources of information about RMC among the respondents

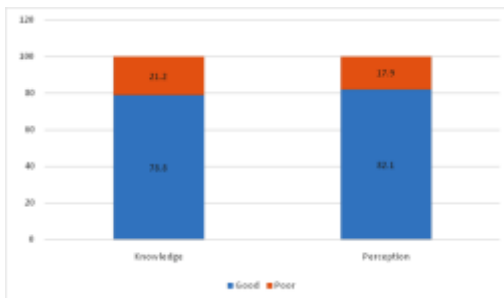


Figure 3: Grading of knowledge and perception of RMC among the respondents.

### Discussion

This study examined maternal health provider knowledge and perception of respectful maternity care among obstetric care providers in a tertiary hospital in Nigeria.

Most of the respondents were aware of and had good knowledge about RMC and the components of mistreatment during childbirth. Awareness was mostly self-driven as medical books were the commonest source of information on RMC. In contrast, another study has found that health providers lacked knowledge of patients' rights, quality interpersonal relationships, and communication during childbirth. Poor knowledge of RMC among health workers as well as focus on medicalized care, rather than woman-centred care contributes to mistreatment during childbirth.

Among all the domains of knowledge assessed, only a few of the respondents expressed satisfactory responses on the possibility that mistreatment during childbirth could be a more powerful deterrent to facility-based childbirth than lack of financial and geographical access. This could reflect that the respondents have not fully understood the critical role of respectful care during childbirth on skilled birth attendance. Loss of patronage and poor reputation of the facility and utilization of unskilled providers have been identified as possible consequences of such mistreatment during childbirth. Inclusion of focused education on RMC at the undergraduate and postgraduate levels will not only improve the awareness/knowledge of health providers but will further enhance the institutionalization of person-centred quality treatment during childbirth in health facilities.

Although the level of knowledge was high, the majority had not received focused postgraduate and undergraduate training on respectful maternity care. This aligns with findings from other studies. The role of training and positive role modelling cannot be

overemphasized as studies show that health providers who witnessed the perpetration of disrespectful care meted by trainers tend to perpetuate and replicate such behaviours in clinical practice post-graduation. Furthermore, our previously published study among the same providers in this study found high levels of witnessed and perpetrated mistreatment during childbirth further underscoring the need for the provider-targeted interventions to reduce mistreatment during childbirth.

The importance of curriculum-based training on RMC was further stressed by the fact that almost all the respondents in this study desired more education on RMC. Similar levels of interest in capacity building on RMC among health providers have been documented in other studies. This favourable disposition towards understanding the components and strategies to promote RMC should be leveraged upon for active engagement with obstetric providers aimed at ending the scourge of mistreatment during childbirth. Additionally, our previous study showed that not only was inadequate training of maternal health providers identified as a major driver of mistreatment during childbirth, but training/retraining was the most recommended solution to addressing provider-level challenges to implementing RMC.

The independent variables found to influence awareness of RMC were undergraduate, postgraduate training on RMC, and higher monthly income earning. Health care providers who receive capacity development on RMC tend to have better interpersonal relationships and provide respectful care to women during childbirth. Hence, it is important to expand the erstwhile traditional focus of health worker training on professional ethics only to include patients' rights and respectful care at both undergraduate and postgraduate medical training levels. Although a systems approach is required in eliminating mistreatment during childbirth, interventions that prioritize the training of health providers have been found to significantly reduce this scourge. It is not clear why higher-income status positively influenced awareness of RMC and thus this relationship requires more research. However, we suspect that this could be related to professional rank as higher earnings in academic health institutions such as our study facility tend to go hand-in-hand with higher professional ranking (closely linked to professional/educational advancement) which in turn may provide better access to information, exposure, and awareness of RMC.

This study also found that a large proportion of the respondents had overall positive perceptions of RMC. However, it was remarkable to note that only a small proportion of respondents agreed that mistreatment during childbirth could contribute to maternal mortality while a larger proportion considered post-childbirth detention in the health facility due to inability to pay hospital bills necessary. As the practice of detention until patients can pay is the norm in most health facilities in Nigeria, this disposition could reflect resistance to change in practices in line with the paradigm of rights-based patient care. Detention following the inability to pay hospital bills has been severally reported among mothers. A significant reduction and possible elimination of detention due to inability to pay for self or baby can be achieved by subsidizing or offering free maternal health services through health insurance. This is in addition to addressing the wider social determinants such as poverty, and unemployment which create inequities in access to health care services.

Interestingly, most respondents did not consider mistreatment during childbirth a common occurrence in their clinical practice context. This could be because mistreatment during childbirth has become normalized by even health providers especially when the focus is on saving the life of the mother and baby. The bid to ensure a good obstetric outcome could blur the lines between normative versus ethically wrong behaviour.

Another thought-provoking finding from this study was that care providers agreed that culture and medical training encouraged the occurrence of mistreatment during childbirth. This could be due to the unequal power relationships between providers and patients and the subjugated placement of women in patriarchal societies.

In this study, obstetric providers who were knowledgeable about RMC were more likely to have positive perceptions about respectful maternity care. Expectedly, sound knowledge will dispel misconceptions and engender positive attitudes towards RMC. Knowledge is an important aspect of the behaviour change process. Also, the perception of RMC among health care providers has been shown to improve by raising the level of awareness. The high levels of knowledge and positive perception of RMC demonstrated by these participants raises some concern as the study participants admitted to both perpetrating and witnessing mistreatment of women during childbirth in another study. Nonetheless, this finding accentuates the importance of integrating and institutionalizing regular focused RMC-promoting knowledge and capacity building opportunities alongside the clinical duties of maternal health providers.

One of the strengths of this study is that to the best of our knowledge, it is one of the few studies that have investigated the knowledge and perception regarding RMC among health providers using quantitative methods. Additionally, by involving both midwives and doctors in this study, this study provides insights on perceptions from the two major groups of the clinical workforce involved in the provision of maternal health services. One of the drawbacks of this study is that respondents may have given socially desirable answers to the questions however anonymous participation and confidentiality were ensured to mitigate this. Our limited sample size and the fact that this study was conducted in only one tertiary hospital limits the generalizability of our findings to other levels of care and context.

## **Conclusions**

This study concludes that there were high levels of awareness, knowledge, and positive perception of respectful maternity care among the study participants. Awareness of RMC was higher among higher-income earners, those who received undergraduate and



postgraduate training on RMC. Although RMC was positively perceived, there were gaps in the perception of its occurrence and consequences. Good knowledge of RMC positively influenced perceptions about RMC. We recommend the inclusion of focused training on RMC into the undergraduate and postgraduate medical curriculum and regular sensitization of maternal health providers on prevention, detection, consequences, and mitigation of mistreatment during childbirth. Additionally, other strategies to curb mistreatment during childbirth beyond the health provider such as enabling work environment, patient education, redress mechanisms, and policy implementation should be put in place,

#### List of Abbreviations

D&A	Disrespect and Abuse
RMC	Respectful Maternity Care
SBA	Skilled Birth Attendants
SPSS	Statistical Package for Social Sciences

#### References

1. World Health Organization. Maternal mortality fact sheet [Internet]. Geneva: 2015 [cited 2017 Sep 2]. Available from: [www.who.int/reproductivehealth](http://www.who.int/reproductivehealth)
2. National Population Commission (NPC) [Nigeria] and ICF Macro. Nigeria Demographic and Health Survey 2013. Abuja: 2013.
3. Jhpiego. Respectful Maternity Care Brief [Internet]. 2011 [cited 2017 Sep 9]. Available from: <https://www.jhpiego.org/wp-content/uploads/2017/03/Jhpiego-RMC-Brief-EN.pdf>
4. Tunçalp O, Were W, MacLennan C, Oladapo O, Gülmezoglu A, Bahl R, et al. Quality of care for pregnant women and newborns-the WHO vision. *BJOG* 2015; 122:1045-9.
5. Bohren MA, Hunter EC, Munthe-kaas HM, Souza JP, Vogel JP. Facilitators and barriers to facility-based delivery in low- and middle-income countries: a qualitative evidence synthesis. *Reprod Health* 2014; 11:71.
6. Yao J, Agadjanian V. Bypassing health facilities in rural Mozambique: Spatial, institutional, and individual determinants. *BMC Health Serv Res* 2018; 18:1-11.
7. Bohren MA, Mehtash H, Fawole B, Maung TM, Balde MD, Maya E, et al. How women are treated during facility-based childbirth in four countries: a cross-sectional study with labour observations and community-based surveys. *Lancet* 2019; 394:1750-63.
8. Uwakwe KA, Merenu IA, Duru CB, Diwe KC. Patterns of utilization of orthodox and/or traditional healthcare services among pregnant women and mothers of under-five children in a rural community: Case study of Njaba, Imo State, Nigeria. *Sahel Med J* 2015; 18:103-8.
9. Hastings MB. Pulling back the curtain on disrespect and abuse: The movement to ensure Respectful Maternity Care [Internet]. Washington, DC: 2015 [cited 2020 Dec 13]. Available from: <http://whiteribbonalliance.org/wp-content/uploads/2016/03/Policy-Brief-Pulling-Back-the-Curtain-on-DR.pdf>
10. White Ribbon Alliance. Respectful maternity care: The universal rights of childbearing women [Internet]. 2010 [cited 2017 Aug 12]. Available from: [www.whiteribbonalliance.org/respectfulcare](http://www.whiteribbonalliance.org/respectfulcare)
11. International Federation of Gynecology and Obstetrics International Confederation of Midwives, White Ribbon Alliance, International Pediatric Association, World Health Organization. Mother-baby friendly birthing facilities initiative. *Int J Gynecol Obstet* 2015; 128:95-9.
12. World Health Organization. Standards for improving quality of maternal and newborn care in health facilities [Internet]. Geneva: 2017 [cited 2017 Sep 13]. Available from: [http://www.who.int/maternal\\_child\\_adolescent/documents/improving-maternal-newborn-care-quality/en/](http://www.who.int/maternal_child_adolescent/documents/improving-maternal-newborn-care-quality/en/)
13. World Health Organization. The prevention and elimination of disrespect and abuse during facility-based childbirth: WHO statement [Internet]. Geneva, Switzerland: 2014 [cited 2017 Feb 9]. Available from: [http://apps.who.int/iris/bitstream/10665/134588/1/WHO\\_RHR\\_14.23\\_eng.pdf?ua=1&ua=1](http://apps.who.int/iris/bitstream/10665/134588/1/WHO_RHR_14.23_eng.pdf?ua=1&ua=1)
14. Miller S, Lalonde A. The global epidemic of abuse and disrespect during childbirth: History, evidence, interventions, and FIGO 's mother-baby friendly birthing facilities initiative. *Int J Gynecol Obstet* 2015;131: S49-52.
15. Okafor II, Ugwu EO, Obi SN. Disrespect and abuse during facility-based childbirth in a low-income country. *Int J Gynecol Obstet* 2015; 128:110-3.
16. Rosen HE, Lynam PF, Carr C, Reis V, Ricca J, Bazant ES. Direct observation of respectful maternity care in five countries: a cross-sectional study of health facilities in East and Southern Africa. *BMC Pregnancy Childbirth* 2015; 15:1-11.
17. Bohren MA, Vogel JP, Tunçalp Ö, Fawole B, Titiloye MA, Olutayo AO, et al. "By slapping their laps, the patient will know that you truly care for her": A qualitative study on social norms and acceptability of the mistreatment of women during childbirth in Abuja, Nigeria. *SSM - Popul Heal* 2016; 2:640-55.
18. Bohren MA, Vogel JP, Tunçalp Ö, Fawole B, Titiloye MA, Olutayo AO, et al. Mistreatment of women during childbirth in Abuja, Nigeria: a qualitative study on perceptions and experiences of women and healthcare providers. *Reprod Health* 2017; 14:9.
19. Bohren MA, Vogel JP, Hunter EC, Lutsiv O, Makh SK, Diniz A, et al. The Mistreatment of Women during Childbirth in Health Facilities Globally: A Mixed-Methods Systematic Review. *PLoS Med* 2015; 12:1-32.

20. Balde MD, Diallo BA, Bangoura A, Sall O, Soumah AM, Vogel JP, et al. Perceptions and experiences of the mistreatment of women during childbirth in health facilities in Guinea: a qualitative study with women and service providers. *Reprod Health* 2017; 14:3.
21. Ndwiga C, Warren CE, Ritter J, Sripad P, Abuya T. Exploring provider perspectives on respectful maternity care in Kenya: "Work with what you have." *Reprod Health* [Internet] 2017;14(1):99. Available from: <http://reproductive-health-journal.biomedcentral.com/articles/10.1186/s12978-017-0364-8>
22. Burrowes S, Holcombe SJ, Jara D, Carter D, Smith K. Midwives' and patients' perspectives on disrespect and abuse during labor and delivery care in Ethiopia: a qualitative study. *BMC Pregnancy Childbirth* 2017; 17:263.
23. Okedo-Alex IN, Chizoba I, Chimezirim L. Does it happen and why?? Lived and shared experiences of mistreatment and respectful care during childbirth among maternal health providers in a tertiary hospital in Nigeria. *Women and Birth* 2021; 34:477-86.
24. Lwanga S, Lemeshow S. Sample size determination in health studies: a practical manual [Internet]. Geneva: 1991 [cited 2020 Dec 9]. Available from: [http://whqlibdoc.who.int/publications/9241544058\\_\(p1-p22\).pdf](http://whqlibdoc.who.int/publications/9241544058_(p1-p22).pdf)
25. Bowser D, Hill K. Exploring Evidence for Disrespect and Abuse in Facility-Based Childbirth: Report of a Landscape Analysis [Internet]. New York: 2010 [cited 2018 Mar 5]. Available from: [https://www.ghdonline.org/uploads/Respectful\\_Care\\_at\\_Birth\\_9-20-101\\_Final1.pdf](https://www.ghdonline.org/uploads/Respectful_Care_at_Birth_9-20-101_Final1.pdf)
26. Reis V, Deller B, Carr C, Smith J. Respectful Maternity Care Country experiences [Internet]. New York: 2012 [cited 2018 Mar 5]. Available from: [https://toolkits.knowledgesuccess.org/sites/default/files/rmc\\_survey\\_report\\_0\\_0.pdf](https://toolkits.knowledgesuccess.org/sites/default/files/rmc_survey_report_0_0.pdf)
27. Lavis JN, Permand G, Oxman AD, Lewin S, Fretheim A. SUPPORT Tools for evidence-informed health Policymaking ( STP ) 13?: Preparing and using policy briefs to support evidence-informed policymaking. *Heal Res Policy Syst* 2009;7(Suppl 1): S13.
28. IBM Corp. Released 2011. IBM SPSS Statistics for Windows, Version 20.0. Armonk, NY: IBM Corp.
29. Warren CE, Njue R, Ndwiga C, Abuya T. Manifestations, and drivers of mistreatment of women during childbirth in Kenya: implications for measurement and developing interventions. *BMC Pregnancy Childbirth* 2017; 17:1-14.
30. Oyerinde K, Harding Y, Amara P. A Qualitative Evaluation of the Choice of Traditional Birth Attendants for Maternity Care in 2008 Sierra Leone: Implications for Universal Skilled Attendance at Delivery. *Matern Child Heal J* 2013; 17:862-8.
31. Moyer CA, Rominski S, Nakua EK, Dzomeku VM, Agyei-Baffour P, Lori JR. Exposure to disrespectful patient care during training: Data from midwifery students at 15 midwifery schools in Ghana. *Midwifery* 2016; 41:39-44.
32. Okedo-Alex IN, Akamike IC, Nwafor JI, Abateneh DD, Uneke CJ. Multi-stakeholder Perspectives on the Maternal, Provider, Institutional, Community, and Policy Drivers of Disrespectful Maternity Care in South-East Nigeria. *Int J Women's Heal* 2020; 12:1145-59.
33. Ratcliffe HL, Sando D, Mwanyika-sando M, Chalamilla G, Langer A, Mcdonald KP. Applying a participatory approach to the promotion of a culture of respect during childbirth. *Reprod Health* 2016; 13:1-7.
34. Ratcliffe HL, Sando D, Lyatuu GW, Emil F, Mwanyika-sando M, Chalamilla G, et al. Mitigating disrespect and abuse during childbirth in Tanzania: an exploratory study of the effects of two facility-based interventions in a large public hospital. *Reprod Health* 2016; 13:39.
35. Abuya T, Ndwiga C, Ritter J, Kanya L, Bellows B, Binkin N, et al. The effect of a multi-component intervention on disrespect and abuse during childbirth in Kenya. *BMC Pregnancy Childbirth* 2015; 15:224.
36. Vogel JP, Bohren MA, Tunçalp O, Oladapo OT, Gülmezoglu AM. Promoting respect and preventing mistreatment during childbirth. *BJOG* 2016; 123:671-4.
37. Bohren MA, Miller S. Transforming intrapartum care: Respectful maternity care. *Best Pract Res Clin Obstet Gynaecol* 2020; 67:113-26.
38. Sando D, Ratcliffe H, Mcdonald K, Spiegelman D, Lyatuu G, Mwanyika-sando M, et al. The prevalence of disrespect and abuse during facility-based childbirth in urban Tanzania. *BMC Pregnancy Childbirth* 2016; 16:1-10.
39. Abuya T, Warren CE, Miller N, Njuki R, Ndwiga C, Maranga A, et al. Exploring the prevalence of disrespect and abuse during childbirth in Kenya. *PLoS One* 2015; 10:1-13.
40. Yakubu J, Benyas D, Emil S. It's for the Greater Good: Perspectives on Maltreatment during Labor and Delivery in Rural Ghana. *Open J Obstet Gynecol* 2014; 4:383-90.
41. Sadler M, Santos MJ, Ruiz-Berdún D, Rojas GL, Skoko E, Gillen P, et al. Moving beyond disrespect and abuse: addressing the structural dimensions of obstetric violence. *Reprod Health Matters* 2016; 24:47-55.
42. Bradley S, McCourt C, Rayment J, Parmar D. Disrespectful intrapartum care during facility-based delivery in sub-Saharan Africa: A qualitative systematic review and thematic synthesis of women's perceptions and experiences. *Soc Sci Med* 2016; 169:157-70.