

# Disrespective and abusive care and associated factors among pregnant women receiving antenatal care at selected public hospitals in Addis Ababa, Ethiopia: a cross-sectional study

Eriste Nigussa<sup>1</sup>, Tesfaye Girma<sup>2</sup>, Hana Abera<sup>1</sup>, Dereje Bayissa Demissie<sup>1</sup>

## Affiliations

<sup>1</sup>Department of Neonatal Nursing, St. Paul's Hospital Millennium Medical College, Addis Ababa, Ethiopia

<sup>2</sup>Department of Pediatric Nursing, St. Paul's Hospital Millennium Medical College, Addis Ababa, Ethiopia

## Correspondence \*

Eriste Nigussa Gamshe

[eriste.nigussa@sphmmc.edu.et](mailto:eriste.nigussa@sphmmc.edu.et)

St. Paul's Hospital Millennium Medical College

## Publication information

Received: 26-Nov-2022

Accepted: 28-June-2023

Published: 15-July-2023

**Citation:** Nigussa E, Girma T, Abera H, Demissie BD. Disrespective and Abusive Care and Associated Factors Among Pregnant Women Receiving Antenatal Care at Selected Public Hospitals in Addis Ababa, Ethiopia: a cross-sectional study. MJH, 2023, Volume 2 (2): eISSN: 2790-1378.

## Abstract

**Background:** Physical safety and the satisfaction of fundamental human needs like respect and autonomy over personal preferences are all part of safe motherhood. Women whose rights are violated may not be motivated to seek professional help, putting them at risk for problems. Despite unmet universal coverage of maternal health service utilization, which could be attributable to mistreatment, there has been little research regarding the manner of care during pregnancy.

**Objective:** The purpose of this study was to determine the magnitude of disrespectful and abusive care of pregnant women and its associated factors.

**Method:** A cross-sectional study was done from January 2019-March 2020 by interviewing 359 randomly selected pregnant women attending care at public hospitals in Addis Ababa. The data was processed and analyzed using SPSS version 21. Association between variables were identified using bivariate and multivariable logistic regression analysis and p-value less than 0.05 was considered statistically significant.

**Result:** Overall, 296 (82.5%) [95% CI: (78.6-86.3)] pregnant women, experienced disrespectful and abusive antenatal care. The most common forms of disrespect and abuse were the abandonment of perinatal health education 296 (82.5%), non-dignified care 288 (80.2%), and non-confidential care 286 (79.7%). Increased age was found to be protective for a woman not to be abused and disrespected while receiving ANC; [AOR=6.892 (95%CI; 2.519-18.853)] for age 20-24 years and [AOR=2.878 (95%CI; 1.358-6.099)] for age 25-29 years; compared with those in the age group of 35-39 years. Pregnant women with 2<sup>nd</sup> and more ANC visits were highly likely to be abused and disrespected compared to those with only one visit

**Conclusion:** Disrespectful and abusive antenatal care was discovered to be significantly prevalent. A significant number of women were lacking perinatal health education, which is essential in prenatal care. Maternal age and order of antenatal care visits were found to influence how providers treat pregnant women. As a result, strengthening policies and empowering women and caregivers in the area of respectful maternity care is recommended.

**Keywords:** abusive, antenatal, care, disrespectful, mother.

## Background

Global Maternal Mortality Rate (MMR) was found to be 216/100,000 live births in 2015; of which developing countries including sub-Saharan Africa account for a large proportion (1). Maternal mortality in developing regions is 15 times higher than in developed regions (2). In Ethiopia, despite decreased trends of MMR from 676 in 2011 to 412 deaths per 100,000 live births in 2016 (3); the country is categorized under the regions with high maternal death 324-857/100,000 live births (4-6). The mortality rate is particularly high in countries where safe motherhood is less practiced. Safe motherhood incorporates not only physical safety but also other attributes of the woman such as the fulfillment of basic human rights including respect for women's autonomy, dignity, feelings, choices, and preferences (1). Even though, maternal mortality primarily is caused by obstetric complications and other health problems; many studies in Ethiopia have revealed that it is also associated with non-utilization, less and infrequent utilization of perinatal care services (4-8). On the other hand, it was also proven that proper utilization of antenatal care and other perinatal health care services have a great impact on lowering the risk of obstetric problems and maternal mortality too (7, 9).

In Ethiopia, pregnant women's uptake of ANC by skilled providers was low (62%). Only 32% of pregnant women continue up to the 4<sup>th</sup> visit (3). Institutional delivery was also found to be 79% and 20% in the urban and rural areas of the country respectively (3). This coverage is far lower than, the WHO's recommendation of universal maternal health service coverage (10). Growing evidence has been showing that women's perception of poor care quality and fear of mistreatment might contribute to this low utilization of maternal health services (11).

An important but little-understood component of the poor care quality experienced by women while receiving maternity care in facilities is the disrespectful and abusive behavior of care providers and other facility staff. Being disrespected and abused, lack of compassionate care, poor interpersonal relationship with care providers, and poor perinatal health care quality; are known to contribute to low institutional delivery and other maternity health services (2, 12). A woman who faced disrespectful and abusive care during antenatal care sidestep from giving birth at health facilities (12). Similarly, it was evidenced that the fear of disrespect and abuse encountered during facility-based maternity care; is a powerful determinant for low utilization of skilled care among women living in countries with high maternal mortality (2, 13). Besides compromising

quality care and lowering perinatal care utilization; disrespectful and abusive maternity care has a paramount health impact too. Being abused and deprived of respectful care may lead to long-lasting psychological damage, emotional trauma, mental disorders, negative self-esteem, and postpartum depression (14-16). Such mistreatment violates not only the rights of women to respectful care, but also threaten their rights to life, health, bodily integrity, and freedom from discrimination(17). Inhuman delivery service is traumatizing not only for the woman but also for the baby because the situation that the baby is born into has both short- and long-term effects on the health of that child. Despite all these facts, evidence shows that the magnitude of disrespectful and abusive care among laboring mothers in Ethiopia was as high as 81.8%-96.5% (1, 2). Nearly all studies concerned with companionate maternal care in Ethiopia focused on how laboring, mothers are treated in health facilities. To the best of the authors' knowledge, there is no study examining how mothers are treated while getting ANC in Ethiopia. Thus, this study aimed to assess if pregnant women receiving antenatal care were subjected to disrespectful or abusive behavior.

## Methods

### Study setting, design, period, and population

A facility-based cross-sectional study was conducted between January 2019 and March 2020 among pregnant women attending ANC at St. Paul Hospital Millennium Medical College and Zewuditu Memorial Hospital, Addis Ababa, Ethiopia. Critically ill and pregnant mothers who had eclampsia were excluded from participation in this study.

### Sample size and sampling

The sample size was determined to be 384 using a single population proportion formula, an assumed prevalence of 0.5, and a 95% confidence level. Based on the proportion to size sample allocation, 208 and 176 participants, respectively, were from Zewuditu Memorial Hospital and St. Paul's Hospital Millennium Medical College. Participants were selected using a lottery method. Each pregnant mother was told to select one of the two equally sized rolled pieces of paper with the numbers 0 or 1 printed on them at the exit of the ANC unit. Those who selected the piece of paper with the number 1 were included in the study.

## Data collection and tools

A structured questionnaire administered by an interviewer was used to collect relevant data on the disrespect and abuse experienced by pregnant women receiving ANC at public hospitals. The disrespect and abuse measuring questions were adapted from the Maternal and Child Health Integrated Program's seven categories of respectful maternity care standards and their respective verification criteria (MCHIP)(18). The questions were designed in such a way that they can measure the disrespect and abuse experienced during antenatal care provision. The survey employed a total of 39 verification criteria for disrespect and abuse. While the rest of the relevant variables were included in the data collection tool through a review of relevant studies. The questionnaire was translated into the most spoken local languages, Amharic and Afan Oromo, and the responses were recorded in English for easy analysis.

## Study variables and operational definitions

The dependent variable was “disrespective and abusive antenatal care”, which has been dichotomized as: “faced disrespectful and abusive care”; for women who encountered at least one form of verification criterion under the 7 domains of disrespect and abuse during antenatal care. There were seven defining domains for the dependent variable.

Non-dignified care: breaching dignity (insulting, blaming, mistreating, yelling at, unwelcoming)

Physical abuse: inflicting physical harm (slapping, pinching, pushing, shaking, pinning down)

Non-consented care: provision of care that the women were not informed about and did not give at least verbal consent for

Non-confidential care: violation and failure of maintaining the privacy of the information as well as physical privacy

Abandonment of care: failure of providing the necessary health care (neglecting care), that a pregnant woman must get

Abandonment of information: failure to provide health education on perinatal health and related issues

Detention in facilities: coercing to stay at health facility without any indication and when need to be discharged. Where the maternal sociodemographic condition and obstetric history were used as covariates in this study.

## Data Processing and Analysis

To objectively identify experienced forms of disrespect and abuse, the verification criteria of each domain were dichotomized as “Yes” or “No” responses. A woman who reported “Yes” to at least one of the verification criteria during ANC, was categorized as “disrespected and abused in the respective domain”. Data entry, cleaning, and analysis were managed using statistical software, SPSS version 21. SPSS version 21 statistical software was used to manage data entry, cleaning, and analysis. Descriptive statistics like mean, frequency, and percentages were computed and displayed in tables, graphs, and charts. The binary logistic regression method was used to examine the relationship between each independent variable and the outcome variable. At a 95% confidence level of less than 0.05, multivariable logistic regression was used to control the effect of confounding.

## Results

### Socio-demographic characteristics of participants

After excluding questionnaires with incomplete and inconsistent information, 359 participants were enrolled with a response rate of 93.5% (359/384). Hundred thirty-eight 138(38.4%) of the participants were in the age range of 25-29 (Table 1). The minimum and maximum ages of the participants were 20 and 39 years respectively. Most of the study participants reside in urban areas and are married (Table 1). Around half of the participants attended primary school and were housewives (Table 1). Three hundred eleven (86.6%) of the participants respond they used to make decisions on their health care, either themselves or with their husbands (Table 1).

Table 1: Sociodemographic characteristics of 359 pregnant women attending ANC follow-up at selected public hospitals in Addis Ababa, Ethiopia 2019-2020

Socio-demographic variables	Categories	Frequency	Percentage (%)
Age (n = 359)	20-24	96	26.7
	25-29	138	38.4
	30-34	71	19.8
	35-39	54	15.0
	Total	359	100
Residence(n=359)	Urban	302	84.1
	Rural	57	15.9
Marital status(n=359)	Married and currently living with husband	328	91.4
	Single	31	8.6
Educational status(n=359)	Never attended formal school	41	11.4
	Primary school (1-8)	155	43.2
	Secondary school (9-10)	82	22.8
	Technical/vocational (10+)	39	10.9
	Higher education (degree and above)	42	11.7
Occupation(n=359)	Gov't employee	41	11.4
	Non-gov't employee	55	15.3
	Self-employee	58	16.2

	House-wife	205	57.1
Decision maker about the health care of the woman (n=359)	Husband	48	13.4
	the woman herself	65	18.1
	Jointly	246	68.5

### Obstetric history of the women

More than half of the mothers, 207(57.7%), were multigravida. Hundred fifty-one (42.1%) of the participants had no history of birth. Hundred sixteen (32.3%), were attending their fourth ANC visit (Table 2).

Table 2: Obstetric history of 359 pregnant women attending ANC follow-up at selected public hospitals in Addis Ababa, Ethiopia 2019-2020

Variable	Response	Frequency (%)
Number of pregnancy	Primiparavida	152(42.3)
	Multiparavida	207 (57.7)
Number of previous births	No	151 (42.1)
	1	128 (35.7)
	>=2	80 (22.3)
Order of ANC visit	1 <sup>st</sup>	19 (5.3)
	2 <sup>nd</sup>	46(12.8)
	3 <sup>rd</sup>	89(24.8)
	4 <sup>th</sup>	116(32.3)
	More than 4	89 (24.8)
Complication	No	119 (33.1)
	Yes	240 (66.9)
Total		359

Out of 359 participants, 240 (66.9%) developed pregnancy-related complications, with pregnancy-induced hypertension accounting for 95 (40%), followed by gestational diabetes mellitus accounting for 31 (12.92%). Other pregnancy complications, such as multiple pregnancies, malpresentation, and postdate, altogether account for 79(33.0%) of total pregnancy complications among the participants (Figure 1)

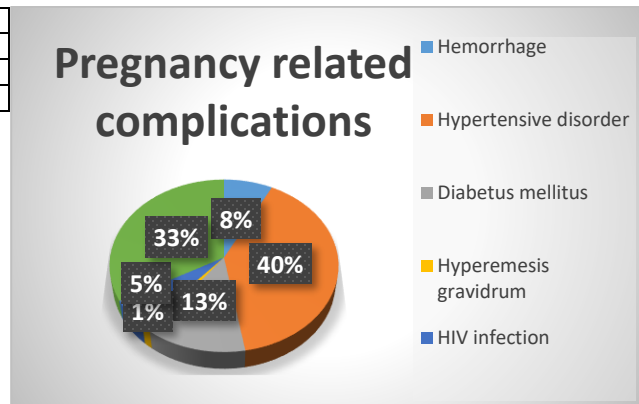


Figure 1: Shows the types of Pregnancy-related complications among 240 pregnant women attending ANC follow-up at selected public hospitals in Addis Ababa, Ethiopia 2019-2020

### Prevalence and categories of disrespectful and abusive care among pregnant women

The overall proportion of pregnant women who experienced disrespectful and abusive care while receiving antenatal care at public hospitals was 296(82.5%) [95% CI: (78.6-86.3)], from which nearly all, 282 (95.3%) reported receiving two or more different types of disrespectful and abusive care. The most frequently experienced form of disrespectful and abusive care, as reported by 296 (82.5%) of the respondents, was the abandonment of perinatal-related health education. It was identified that the mothers at least did not receive health information on birth preparedness and complication readiness 253(70.5%), as well as pregnancy danger signs 168(46.8%). The other frequently experienced forms of D & A care were, non-dignified care 288 (80.2%) and non-confidential care 286(79.7%). In terms of abandoning any antenatal care components, 126 (35.1%) women reported that their body weight was not measured during their ANC visit. One hundred thirty-five (37.6%) of respondents reported verbal abuse, while only 18 (5%) reported physical abuse. Approximately one-fourth 92(25.6%) received care for which they did not consent. A detailed description of forms of disrespectful and abusive care is presented in Table 3

Table 3: Prevalence of different categories of disrespectful and abusive care among pregnant women attending ANC follow-up at selected public hospitals in Addis Ababa, Ethiopia 2019-2020

Variable	Response	Frequency	Percent (%)	95% CI
Physical abuse (n=359)	Faced at least one form of physical abuse	18	5.0	(2.8-7.5)
	Did not face any form of physical abuse	341	95.0	
Verbal abuse(n=359)	Faced at least one form of verbal abuse	135	37.6	(32.6-42.6)
	Did not face any form of verbal abuse	224	62.4	
Non-dignified care(n=359)	Faced at least one form of non-dignified care	288	80.2	(76.3-84.8)
	Did not face any form of physical abuse	14	3.9	
Non-consented care(n=359)	Received care without consenting	92	25.6	(21.2-30.4)
	Did not receive care without consent	267	74.4	
Non-confidential care(n=359)	Faced non-confidential care	286	79.7	(76.3-84.1)

	Did not face non-confidential care	71	19.8	
Abandonment of antenatal care(n=359)	Failed to receive at least one component of ANC	126	35.1	(29.1-40.1)
	None of the antenatal care components neglected	233	64.9	
Abandonment of health education on antenatal/perinatal health-related issues(n=359)	Did not receive antenatal health education	296	(82.5%)	(78.6-86.3)
	Received antenatal health education	34	9.47	
Detention at the health facility(n=359)	Detained at a health facility without any indication	8	2.2	(0.8-3.9)
	Was not detained at a health facility without any indication	351	97.8	

### Factors associated with disrespectful and abusive care

Multiple logistic regression analysis showed that age and number/order of ANC visits of pregnant women were major determinants for abuse and disrespect during ANC follow-up. The odds of facing disrespectful and abusive care among women in the age group of 20-24 and 25-29 were

significantly higher than women more than 35 years with different AOR values (Table 4). Likewise, the odds of facing disrespect and abusive care among women with 2 and more ANC visits are significantly higher than among women with only 1 visit with varying AOR (Table 4).

Table 4: Factors associated with Disrespective and Abusive Antenatal Care, by multivariable logistic regression analysis, in Addis Ababa, Ethiopia 2019-2020

Variables	Category	Disrespective and Abusive care		COR (95%CI)	P-Value	AOR (95%CI)
		Faced	Not faced			
Age	20-24	90	60	6.892(2.519-18.853) ***	0.000	7.583(2.662-21.607) ***
	25-29	119	19	2.878(1.358-6.099) **	0.005	3.169(1.421-7.070) **
	30-34	50	21	1.094(0.508-2.358)	0.726	1.156(0.514-2.602)
	35-39(ref)	37	17		<b>1.00</b>	
Number of ANC visits	1 <sup>st</sup> visit(ref)	9	10		<b>1.00</b>	
	2 <sup>nd</sup> visit	41	5	9.111(2.499-33.212) ***	0.000	13.006 (3.315-51.029) ***
	3 <sup>rd</sup> visit	73	16	5.069(1.773-14.495) **	0.003	5.347 (1.755-16.294) **
	4 <sup>th</sup> visit	104	12	9.630(3.268-28.378) ***	0.000	9.309 (2.985-29.035) ***
	>4 visit	69	20	3.833(1.370-10.726) *	0.012	4.109(1.366-12.362) *

Note: \*\*\*p<0.001, \*\*p<0.01, \*P<0.05; ref =reference

Additionally, cross-tabulation was performed to assess the relationship of covariates with the most commonly experienced forms of disrespectful and abusive care including, abandonment of health information, non-dignified care, and non-confidential care. Accordingly, it was identified that most primipara mothers experienced non-dignified care and were neglected and abandoned in health education as compared to multiparous mothers. The finding of cross-tabulation of obstetric variables with the abandonment of health education revealed that more pregnant women with no history of pregnancy complications were not given health education during their ANC visits

### Discussion

This study revealed that, overall, 296(82.5%) [95% CI: (78.6-86.3)] pregnant women did experience disrespect and abuse whenever receiving antenatal care at public hospitals. This finding is much higher when compared with studies conducted in Tanzania (19) and Kenya

(20); where 19-28% and 20% of women respectively were exposed to disrespect and abuse during childbirth. The discrepancy could be because of the difference in sociodemographic status among the women; the difference in availability of facilities to practice RMC to the expected level; and it could also be due to the difference in national policies towards RMC. It is higher also when compared with other cross-sectional studies conducted in Ethiopia, in which mistreatment was reported by 36% (21) of the study participants. This inconsistency may be due to the differences in data collection methods, which were interviews in this study and a structured observational checklist in the previous study. In an interview, women might be over-reported, even when they are not being mistreated, to gain attention in the future. Whereas in observation, the observant might consider some tolerable mistreatments, resulting in a lower report. But the magnitude is a bit lower than a study conducted in Gojam, Ethiopia (1) where more than 98% of parturients faced at least one type of disrespectful and abusive

care. It could also be because the women in this study have a better understanding of their rights and obtaining care that meets the expected standard, such as respected and non-abusive care.

When it comes to the defining domains of disrespectful and abusive care; in this study, it was revealed that abandonment of perinatal-related health education 296 (82.5%), non-dignified care 288 (80.2%) and violation of confidential care 286(79.7%) were the top three most experienced disrespectful and abusive care domains. In line with this finding previous studies in Kenya and Tanzania had also identified non-dignified care (18%)(20) and, non-confidential care (20, 23); to be the most practiced forms of D &A care. Unlike this study's finding, in which it was revealed that verbal abuse was rarely practiced and physical abuse was experienced almost by none of the women; these two were mentioned to be commonly practiced forms of D &A care according to studies conducted in Tanzania and Kenya(19, 20, 23). This might be the reason that the target group of previous studies were laboring women, who most of the time become impulsive because of labor pain and this in turn might coarsely care providers to verbally assault and physically enforce the parturient to calm her. Even though health education on perinatal health and related issues is the most important component of antenatal care; in this study it was identified that most pregnant mothers reported they did not receive health education during ANC visits. However, to the level of this search, in previous research, nothing has been studied regarding the abandonment of health information. This could be because most of the previous studies focused on the status of disrespect and abuse among laboring women. Very importantly it was also discovered that many women were not given health information at least on pertinent antenatal health issues including birth preparedness and complication readiness 253(70.5%), as well as pregnancy danger signs 168(46.8%). However, unless any health problem is there or arises, pregnancy hood does not require any medical treatment; except some supplements. But rather health education regarding general health issues, perinatal health issues, and pregnancy danger signs is the most important intervention that any pregnant woman is worth getting during an ANC visit.

In this study, it was observed that an increase in age is protective for a woman not being abused and disrespected while receiving ANC. As it was revealed the odds of disrespectful and abusive care were 6.892 (CI; 2.519-18.853) for the age group of 20-24; and 2.878 (CI; 1.358-6.099) for the age group of 25-29 years; when compared to those in the age group of 35-39 years. This is in line with previous evidence in other African countries, in which it was proven that disrespectful and abusive maternity

care increases with the age of the mother decreased (1, 20). It could be because of cultural influence. In every society, it is common that great respect is owed to older people than to younger ones. However, it is not admissible when it comes to maternity care in light of WHO's recommendation, which states that every woman demands and has the right to dignified, respectful health care throughout pregnancy and childbirth, as well as the right to be free from disrespect and abuse (17). In the current study, pregnant women who were attending their 2<sup>nd</sup> and more ANC visits were highly likely to be abused and disrespected compared to those with only one visit. This might be because the first ANC visit is the period at which basic data is obtained and basic care is established. Therefore, at the first visit care providers most of the time approach the pregnant woman sensitively and listen to the woman's complaints about her previous history and undertake a detailed assessment. Whereas, the rest of the visits simply focus only on a few parameters of ANC such as asking if the woman has any concerns about her physical health related to the pregnancy. However, this may be unfair as every pregnancy is risky and uncertainty may occur at any time in pregnancy. Moreover, the way the woman is treated at any stage of pregnancy has great health importance both for the mother and the fetus. By cross-tabulation, it was identified that primipara mothers experienced non-dignified care and were neglected and abandoned in health education as compared to multiparous mothers. This has similarities with a previous study in Tanzania whereby, women with the first birth have a high chance of being abused and disrespected (19). The possible reason could be women's experience and awareness of exercising their rights. Women who had a previous history of maternal health care in any form of it may have a relatively good understanding of their rights and may even better complain to have care respectfully. So that the chance of encountering disrespect may decrease compared with those who have no prior experience with maternity care.

The finding of cross-tabulation of obstetric variables with the abandonment of health education revealed that more pregnant women with no pregnancy complications were not given health education during their antenatal visits. Even though, paying due attention and giving priority to those with complications is very justifiable; it is also very important to realize that there should be impartiality in giving health education to every woman as it is the best tool in minimizing poor pregnancy outcomes including pregnancy-related complications.

## Limitations of the study

It was impossible to show the cause-and-effect link between the variables since a cross-sectional design was adopted

## Conclusion

In conclusion, it was discovered that the magnitude of disrespectful and abusive antenatal care was quite high, to the point where it may be assumed that it would potentially affect the use of following maternal care services like delivery and postnatal care. Even though health education is the most important component of antenatal care, a large number of women were denied perinatal health education. Maternal age and the order of antenatal visits were found to be significantly associated with disrespectful and abusive care in pregnant women. Furthermore, there was a relationship between the manner with which pregnant women are treated and some maternal obstetric variables such as gravidity, parity, and pregnancy-related complications

As a result, it is worthwhile to strengthen policies relating to respectful maternity care to empower women to assert their right to dignified care and health care providers to practice respectful care to the standard. In addition, health facilities at all levels of service are expected to use various strategies to focus on general and case-specific perinatal health education. Additionally, a qualitative investigation of institutional and provider factors influencing how pregnant women are treated will be beneficial.

## Abbreviations

ANC: Antenatal Care

D&A: Disrespect and Abusive

HCP: Health Care Providers

HC: Health Venter

HIV: Human Immune Deficiency Virus

MCHIP: Child Health Integrated Program

RMC: Respectful Maternity Care

SPHMMC: Saint Paul's Hospital Millennium Medical College

## Declarations

Consent for publication

Not applicable.

Ethical declaration

The approval letter was obtained from the ethical review committees of

the Addis Ababa Health Office and St. Paul's Hospital Millennium Medical College. These two organizations sent an official letter to the research hospitals. All individuals who took part in the study provided verbal informed consent.

## Acknowledgments

We are thankful to St. Paul's Hospital Millennium Medical College for funding this study and covering all associated costs. We also like to thank all the participants.

## Authors' contributions

Gamshe EN has contributed to the conception of the idea, designing the work, the analysis, and interpretation of the data, as well as preparation of the manuscript for publication

Legesse TG has actively contributed to the planning and analysis of the work

Demissie DB contributed by reviewing the work in-depth, evaluating, and interpreting the data.

H/Mariam HA has been involved in interpreting the data and drafting the manuscript

## Funding

The Millennium Medical College at St. Paul's Hospital provided funding for this research. The study's design, data collection, analysis, interpretation, and paper writing were all done independently of the funding source.

## Competing interest

The authors have given their approval for the submission of this final version. They are accountable for their work and ensure that any questions or issues regarding the accuracy or integrity of any component of the work are thoroughly explored, dealt with, and appropriately documented in the manuscript.

## Availability of data and materials

This article contains all the pertinent information that was produced in accordance with the objectives. The datasets used in the current investigation are available upon reasonable request from the corresponding author if more information is required.

## References

1. Ayele S. Level of Disrespect and Abuse in Maternity Care among Facility Based Maternity Care Users, Debre Markose, East Gojjam, Ethiopia: Addis Ababa University; 2016.

2. Asefa A, Bekele D. Status of respectful and non-abusive care during facility-based childbirth in a hospital and health centers in Addis Ababa, Ethiopia. *Reproductive health*. 2015;12(1):33.
3. Central Statistical Agency E. Ethiopia Demographic and Health Survey 2016: Key indicators report. 2016.
4. Legesse T, Misra Abdulahi AD. Trends and causes of maternal mortality in Jimma University specialized hospital, Southwest Ethiopia: a matched case-control study. *International journal of women's health*. 2017;9:307.
5. Tura AK, Zwart J, Van Roosmalen J, Stekelenburg J, Van Den Akker T, Scherjon S. Severe maternal outcomes in eastern Ethiopia: Application of the adapted maternal near miss tool. *PLoS one*. 2018;13(11):e0207350.
6. Tesfaye G, Loxton D, Chojenta C, Assefa N, Smith R. Magnitude, trends and causes of maternal mortality among reproductive aged women in Kersa health and demographic surveillance system, eastern Ethiopia. *BMC women's health*. 2018;18(1):198.
7. Gudayu TW. Proportion and factors associated with late antenatal care booking among pregnant mothers in Gondar Town, North West Ethiopia. *African journal of reproductive health*. 2015;19(2):93-9.
8. Sara J, Haji Y, Gebretsadik A. Determinants of Maternal Death in a Pastoralist Area of Borena Zone, Oromia Region, Ethiopia: Unmatched Case-Control Study. *Obstetrics and gynecology international*. 2019;2019.
9. Alemu T, Umeta M. Reproductive and obstetric factors are key predictors of maternal anemia during pregnancy in Ethiopia: evidence from demographic and health survey (2011). *Anemia*. 2015;2015.
10. World Health Organization W. WHO recommendations on antenatal care for a positive pregnancy experience: World Health Organization; 2016.
11. 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 and childbirth*. 2017;17(1):.
12. Molla M, Muleta M, Betemariam W, Fesseha N, Karim A. Disrespect and abuse during pregnancy, labour and childbirth: a qualitative study from four primary healthcare centres of Amhara and Southern Nations Nationalities and People's Regional States, Ethiopia. *Ethiopian Journal of Health Development*. 2017;31(3):
13. Windau-Melmer T. A guide for advocating for respectful maternity care. Washington DC: USAID. 2013.
14. Souza KJd, Rattner D, Gubert MB. Institutional violence and quality of service in obstetrics are associated with postpartum depression. *Revista de saude publica*. 2017;.
15. Stepanikova I, Kukla L. Is perceived discrimination in pregnancy prospectively linked to postpartum depression? Exploring the role of education. *Maternal and child health journal*. 2017;21(8).
16. Reed R, Sharman R, Inglis C. Women's descriptions of childbirth trauma relating to care provider actions and interactions-BMC Pregnancy and Childbirth-Vol. 17-ISBN:.
17. Organization WH. The prevention and elimination of disrespect and abuse during facility-based childbirth: WHO statement. World Health Organization; 2014.
18. Umar N, Quaife M, Exley J, Shuaibu A, Hill Z, Marchant T. Toward improving respectful maternity care: a discrete choice experiment with rural women in northeast Nigeria. *BMJ global health*. 2020 Mar 1;5(3):e002135.
19. Kruk ME, Kujawski S, Mbaruku G, Ramsey K, Moyo W, Freedman LP. Disrespectful and abusive treatment during facility delivery in Tanzania: a facility and community survey. *Health Policy and Planning*. 2018;33(1):.
20. 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(4):
21. Sheferaw ED, Bazant E, Gibson H, Fenta HB, Ayalew F, Belay TB, et al. Respectful maternity care in Ethiopian public health facilities. *Reproductive health*. 2017;14(1):60.
22. deValpine MG. First Trimester Prenatal Care and Local Obstetrical Delivery Options for Women in Poverty in Rural Virginia. *Community & Public Health Nursing*. 2016;2(4).
23. Solnes Miltenburg A, van Pelt S, Meguid T, Sundby J. Disrespect and abuse in maternity care: individual consequences of structural violence. *Reproductive health matters*. 2018;26(53):88-106.
24. Mulugeta T, Ayele T, Zeleke G, Tesfay G. Asthma control and its predictors in Ethiopia: Systematic review and meta-analysis. *Plos one*. 2022 Jan 13;17(1).
25. Global Initiative for Asthma. Global Strategy for Asthma Management and Prevention, 2022.
26. Adeloye D, Chan KY, Rudan I, Campbell H. An estimate of asthma prevalence in Africa: a systematic analysis. *Croat Med J*. 2013;54(6):519-531.
27. Aschalew, A., Kebed, R.A., Demie, T.G. et al. The level of asthma control and related factors in children attending pediatric respiratory clinics in Addis Abeba, Ethiopia, were evaluated. *BMC Pulm Med*, vol. 22, no. 70 (2022).
28. Davies B, Danseco E, Cicutto L, Higuchi KS, McConnell H, Edwards N, MacPherson A, & Clarke D. (2006). Nursing Best Practice Guidelines evaluation user guide: inhaler device assessment tool for promoting asthma control in children. Nursing Best Practice Research Unit, University of Ottawa, Canada. pp. 1–30. Available from: <https://rnao.ca/bpg/guidelines/promoting-asthmacontrol-children>
29. American Thoracic Society. Patient information. Using your metered dose inhaler (MDI). *Am J Respir Crit Care Med*. 2014; 190: 5-6.
30. Machira E, Obimbo E, Wamalwa D, Gachare L. Assessment of inhalation technique among asthmatic children and their carers at the Kenyatta National Hospital, Kenya. *African Journal of Respiratory Medicine* Vol. 2011;7(1).
31. Weldetsadik AY. Current knowledge and practice in the diagnosis and management of preschool asthma. *Ethiopian Journal of Pediatric Health* (2020). 15(2): 47-59.
32. Pavord ID, Breasley R, Agusti A, et al., After asthma: redefining airway diseases. *Lancet*. 2018;391(10118):350-400.