

Disrespect and abuse experienced by women giving birth in public health facilities of Eastern Ethiopia: a multicenter cross-sectional study

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Abstract

Objective: We assessed the magnitude of disrespect and abuse experienced by women giving birth at public health facilities in Dire Dawa, Eastern Ethiopia.

Methods: We conducted a facility-based quantitative cross-sectional study in Dire Dawa City Administration from 21 October to 8 December 2020. We used a pre-tested structured questionnaire to interview 555 randomly selected women who gave birth in public health facilities during the study period. Bivariate and multivariate logistic regression analysis was performed in statistical analysis.

Results: Among 555 women, 473 (85.2%) reported having experienced at least one form of disrespect and abuse. Giving birth at a hospital (adjusted odds ratio [AOR] = 4.15; 95% confidence interval [CI], 2.29–7.51) and being attended by male providers (AOR = 3.27; 95% CI, 1.57–6.81), as well as being attended by three or four providers (AOR = 0.44; 95% CI, 0.22–0.88) and delivering at night (AOR = 0.27; 95% CI, 0.15–0.48) were significantly associated with greater or less likelihood, respectively, of disrespect and abuse.

Conclusion: We revealed an unacceptable level of disrespect and abuse toward women giving birth at public health facilities. Health care providers must understand the importance of

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respectful maternity care. The city's health bureau should conduct provider training and enforce adherence to respectful care.

Keywords

Disrespect, abuse, respectful maternity care, Dire Dawa, Eastern Ethiopia, public health facility

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Introduction

The Health Sector Transformation Plan (HSTP) of the government of Ethiopia has made maternal and child health a priority area of focus.¹ Consequently, a considerable decline in maternal mortality has been recorded. After 20 years, maternal mortality in Ethiopia has been reduced by nearly half, from 871 per 100,000 live births to 412 per 100,000 live births. However, these achievements fall far short of the Sustainable Development Goals (70 per 100,000 live births by 2030) and HSTP targets (199 per 100,000 live births by 2020).^{2,3}

Advocates for respectful maternity care (RMC) argue that safe maternal care should go beyond preventing disease or death to include respect for women's fundamental human rights. RMC is a treatment approach that emphasizes the fundamental rights of women, newborns, and families and promotes equitable access to evidence-based care while understanding the specific needs and preferences of these groups.^{4,5}

In the context of maternal care, disrespect and abuse (DA) refers to any harsh treatment or careless behavior directed at a woman during labor and delivery. Physical abuse, lack of permission to provide care, non-confidentiality, undignified care, abandonment, discrimination, and incarceration for failure to pay user fees are all examples of DA that women may encounter at a health facility during childbirth.⁴⁻⁷

Ethiopia has devised various strategies to alleviate the extent of maternal DA. To this end, enhancing institutional delivery by skilled attendants is a key strategy.^{1,8} However, Ethiopia has a low development level and has failed to improve access to health care in most rural communities. As a result, the country has one of the lowest rates of institutional delivery.² Additionally, several factors discourage women from delivering at a health facility, including sociodemographic factors, residential area, antenatal care (ANC), and partner educational level.^{9,10} In recent years, numerous studies have revealed that DA is an important deterrent to service utilization.^{6,11-18} Ethiopia's Federal Ministry of Health has introduced the concept of RMC within the health care system to address this problem.⁴

With introduction of the RMC concept in Ethiopia, solid initiatives and efforts have been implemented to incorporate this approach into in-service training packages alongside the Basic Emergency Obstetric and Newborn Care package.¹⁹ However, regulatory and monitoring mechanisms to ensure appropriate integration into health facilities are lacking. There is also scant evidence of large-scale implementation and reports of bottlenecks encountered over time.²⁰

Studies in Ethiopia have indicated varying degrees of DA among women giving birth in public health facilities in the

country. The degree of DA varies across sociocultural contexts and by geographic location. The proportion of DA among women giving birth in public health facilities ranges from 21% in the Southern Nations, Nationalities, and Peoples' Region and Amhara Region;⁶ 22% in Tigray;¹⁴ and 67.1% in Bahir Dar¹⁸ (northern Ethiopia). This proportion is 74.8% in western Oromia¹² and 91.7% at Jimma University Medical Center²¹ (western Ethiopia), and 98.9% in Arba Minch town (southern Ethiopia).¹⁷

Although studies in other parts of the country have been conducted, contextual studies focusing on the magnitude of DA in Ethiopia's eastern regions are scarce. Furthermore, most local studies typically include only one or two health facilities; studies involving multiple health facilities can enhance generalizability of the findings. Additionally, the COVID-19 pandemic had a large impact on overall care provision, service utilization, and DA level. Therefore, we aimed to determine the prevalence of DA among women giving birth at multiple public health facilities in Dire Dawa City Administration (DDCA), Eastern Ethiopia during 2020. Reports of this kind are critical for improving services to pregnant and laboring women and to inform responsible stakeholders.

Methods

The reporting of the findings of this cross-sectional study followed the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) guidelines.²²

Study design, area, and period

We used a facility-based quantitative cross-sectional study design. The study was conducted in public health care facilities of DDCA from 21 October to 8 December 2020. DDCA is situated on the eastern

rim of the East African Rift Valley at 9°36'N 41°52'E, 48 kilometers northwest of Harar and 515 kilometers east of Addis Ababa, Ethiopia's capital. The city's total estimated population is 506,936. According to the city administration's woreda base plan, the total number of expected pregnancies in 2019/2020 was 16,314. The city is served by two general hospitals, three private hospitals, 15 health centers (eight rural and seven urban), 34 health posts, and 53 private clinics. All health centers and public hospitals provide maternal care and delivery services.^{23,24}

Study population and sampling

The study population was randomly selected from among all women who gave birth in public health facilities of DDCA during the study period. Women who were critically ill and unable to communicate owing to illness were excluded from the study.

The present research had two objectives. The first objective was to assess the magnitude of DA experienced by laboring women in DDCA public health facilities. Therefore, the sample size was calculated using the single population formula with the assumption that a proportion of the population possessed the characteristic of interest (67.1%),¹⁸ with a level of significance of 5% and a 5% margin of error. After adjusting for a 10% non-response rate, the final calculated sample size was 373. The second study objective was to assess those factors associated with DA, for which the double population formula was used. The sample size was calculated using Epi Info version 7.1 (Centers for Disease Control and Prevention, Atlanta, GA, USA), assuming a 95% confidence interval, a power of 80%, a ratio of 1:1, and factors associated with DA (a 50.8% proportion of DA among those with a tertiary level education and a 63.4% proportion of DA among those with no formal

education).¹² The sample size was 565 after accounting for a 10% non-response rate. The latter of the two calculated sample sizes was used to ensure data generalizability and representativeness.

Sampling with proportion to population size was used to select the study units. According to the case flow in each health facility, a sample was allocated for all public health facilities that provided delivery services in DDCA (except for Sabian General Hospital, which was serving as a COVID-19 treatment center during the study period). A systematic random sampling technique was used, and the k value

was computed after calculating the sum of all deliveries in the previous 45 days in all facilities ($k = N/n$, $1191/564 = 2.11$) (Figure 1).

Data collection

The overall DA among laboring women was the outcome variable. The independent variables were sociodemographic and socio-economic characteristics (age, marital status, educational level, income, occupation, residence), maternal factors (parity, gravidity, and ANC follow-up), and facility-related factors (sex of health care

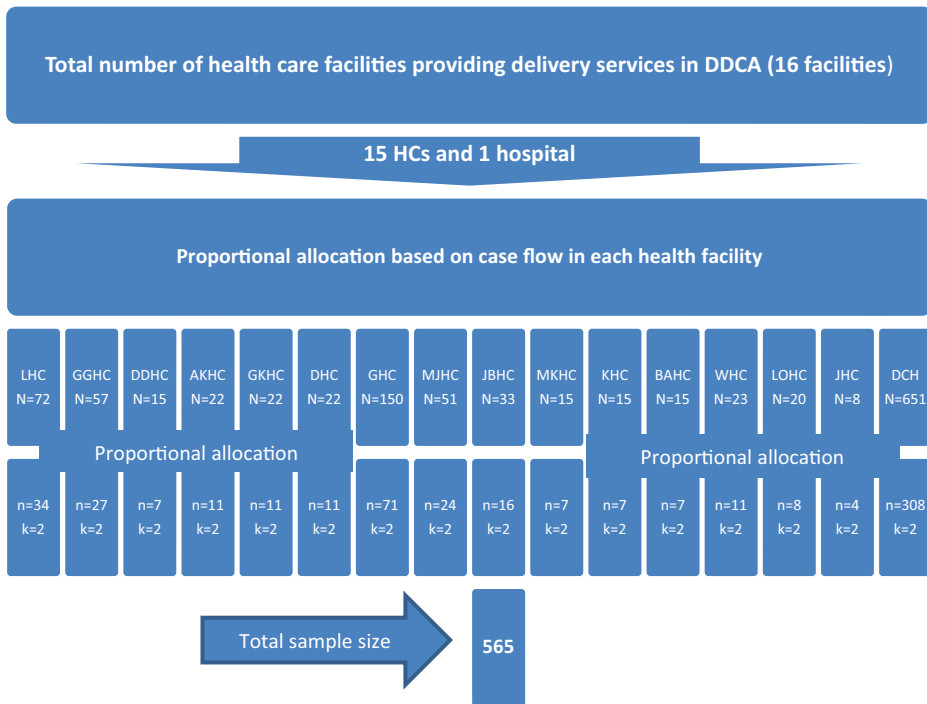


Figure 1. Schematic presentation of sampling procedure to select women who gave birth in public health facilities of Dire Dawa City Administration, Eastern Ethiopia, 2020. DDCA, Dire Dawa City Administration; HC, health center; LHC – Legehare Health Center; GGHC, Gende-Gerada Health Center; DDHC, Dire Dawa Health Center; AKHC, Addis Ketema Health Center; GKHC, Gende-Kore Health Center; DHC, Dechatu Health Center; GHC, Goro Health Center; MJHC, Melka Jebdu Health Center; JBHC, Jelo Balina Health Center; MKHC, Melka Kero Health Center; KHC, Kalicha Health Center; BAHC, Biyo Awale Health Center; WHC, Wahil Health Center; LOHC, Lege Oda Health Center; JHC, Jeldesa Health Center; DCH, Dil Chora Hospital.

providers, length of stay in the facility, delivery type, and type of health facility).

The data were collected using a pre-tested structured questionnaire. The questionnaire was first prepared in English after a review of the recently published literature.^{2,4,5,25} The questionnaire was then translated into the local languages Amharic, Afan-Oromo, and Af-Somali and then back-translated into English to ensure the correctness and consistency of translation. Amharic, Afan-Oromo, and Af-Somali versions were used during data collection. The data collection tool comprised three sections; the first assessed the sociodemographic characteristics of the mother; the second section assessed obstetric, service provider, and facility-related factors; and the third section assessed DA among laboring women according to the seven components of the Respectful Maternity Care Charter: Universal Rights of Mothers and Newborns.⁵

The data were collected in face-to-face interviews. Eight nurses with a BSc degree were recruited as data collectors. The nurses received 2 days of training in use of the data collection tool to help them understand the questionnaire and how to approach study participants. Data collectors approached women immediately after being discharged from the maternity ward to home. Interviews were conducted in a dedicated, well-ventilated room to maintain the COVID-19 safety protocols.

Participants were asked to report their birth date during data collection, which was categorized into five groups on the basis of the national reproductive age classification.³ Monthly income was assessed by querying the total monthly income of the household, which was grouped into two categories based on the mean value. Educational level was treated as an ordinal categorical variable according to the educational policy of Ethiopia.²⁶ Information on participants' marital status, occupation,

residence, sex of the health care providers, delivery type, and type of health facility were collected as nominal categorical data. Women were asked to report the number of hours they spent in the health care facility. Gravity and parity (viable or non-viable) were recorded. The women were asked whether they had undergone ANC follow-up.

Seven elements with a total of 30 items were used to assess DA. Each of the seven elements had a set of verification criteria to be assessed (five for physical abuse, eight for non-consented care, three for non-confidentiality, five for undignified care, five for discrimination, three for abandonment of care, and one for detention in a health care facility). A woman was considered to have experienced overall DA if she responded "Yes" to at least one of the negatively specified criteria (an act that could potentially harm the woman) or "No" to at least one of the positively specified criteria (an act that could potentially protect the woman).^{14,21}

High emphasis was placed on designing data collection instruments to assure the quality of the data. The questionnaire was pre-tested among 5% of the sample (28 women) in selected health care facilities. After pre-testing, further adjustments to the data collection tool were made to improve clarity, understandability, and simplicity. All questionnaires were checked for completeness and accuracy during and after the period of data collection. Interviewers were supervised throughout data collection, and regular meetings were held between data collectors and the principal investigators.

Data processing and analysis

The data were coded, entered, and cleaned using EpiData version 3.02 (The Epi Data Association Odense, Denmark) and exported into IBM SPSS version 25 for analysis (IBM Corp., Armonk, NY, USA). Descriptive statistics (mean and

standard deviation) were used to summarize continuous variables, and simple frequencies and percentages were computed to show the distribution of categorical variables. Each component was coded as “DA = 1” and “No DA/Not applicable = 0.” Binary logistic regression was done to determine the association of each independent variable with the outcome variable (overall DA among laboring women). All variables with a p-value ≤ 0.25 in the bivariate binary logistic regression analysis were fitted into the final multivariate logistic regression model to control confounding effects. The Hosmer–Lemeshow test was used to ascertain the regression model fitness. The adjusted odds ratio (AOR) with 95% confidence interval (CI) was used to evaluate the strength of the statistical association between explanatory and outcome variables. All variables with p-values < 0.05 in the multivariable analysis were considered statistically significant.

Ethical considerations

Ethical approval was obtained from Dire Dawa University, Research and Ethics Review Committee of the College of Medicine and Health Sciences (Ref no. DDU/RERC/058/2020). Written permission was requested from the Dire Dawa regional health bureau for the corresponding health facilities to collect data from the selected health facilities. Participation in the study was voluntary, and respondents were informed regarding the purpose of the study and their right not to participate or to withdraw at any point. Written and signed consent was obtained from each participant. The names and personal information of participants were not recorded on the questionnaire, and all documents were kept private to maintain confidentiality.

Results

Sociodemographic characteristics of participants

A total of 555 women who had given birth at a public health care facility in DDCA participated in the study, yielding a response rate of 98.2%. The mean age (\pm standard deviation) of study participants was 28.7 ± 4.99 years. Among the included women, 38.7% were homemakers and 81.3% were married. In total, 41.5% of participants were followers of the Orthodox Christian religion, and 36.9% belonged to the Oromo ethnic group. A total of 13.3% of women could not read or write and most respondents (89.0%) resided in an urban area (Table 1).

Two-thirds (66.7%) of the included women were multigravida, and 90.3% had at least one ANC follow-up in the current pregnancy. Most women (64.0%) had a history of institutional delivery. Regarding the number of providers of delivery services, 470 (84.7%) were attended by one or two health care providers, and 370 (66.7%) were attended by female providers. More than half of women (54.2%) delivered at night, and 93.7% stayed in the health care facility for less than 24 hours. Most women (92.6%) had spontaneous vaginal delivery (Table 2).

Magnitude of maternal disrespect and abuse

Among the 555 respondents, 473 (85.2%) reported having experienced at least one form of DA. More than half of respondents ($n = 323$, 58.2%) were abused physically. The most frequent type of DA experienced by women was non-consented care (73.9%), followed by abandonment of care (71.4%). Approximately 60.4% of women were exposed to non-dignified care, and nearly half (50.6%) experienced non-confidential

Table 1. Sociodemographic characteristics of women giving birth in public health facilities of Dire Dawa City Administration, Eastern Ethiopia, 2020.

Variable	Frequency	Percent
Maternal age in years		
15–19	23	4.1%
20–24	98	17.7%
25–29	210	37.8%
30–34	153	27.6%
>35	71	12.8%
Occupation of woman		
Homemaker	215	38.7%
Government employee	197	35.5%
Self-employed	143	25.8%
Ethnicity		
Amhara	168	30.3%
Oromo	205	36.9%
Somali	98	17.7%
Tigray	39	7.0%
Gurage	33	5.9%
Harari	12	2.2%
Religious group		
Orthodox Christian	230	41.5%
Protestant	94	16.9%
Muslim	231	41.6%
Marital status		
Married	451	81.3%
Divorced	37	6.7%
Unmarried	33	5.9%
Widowed	21	3.8%
Separated	13	2.3%
Educational level		
Illiterate	74	13.3%
Primary	257	46.3%
Secondary	94	17.0%
College or university	130	23.4%
Monthly income (Ethiopian birr)		
<3675	337	60.7%
>3675	218	39.3%
Residence		
Urban	494	89.0%
Rural	61	11.0%

care. The least common forms of DA were discrimination based on specific patient attributes and detention in the health facility, reported by 8.3% and 2.0% of women, respectively (Figure 2).

Table 2. Obstetric characteristics of women who gave birth in public health facilities of Dire Dawa City Administration, Eastern Ethiopia, 2020.

Variable	Frequency	Percentage
Gravidity		
Primigravida	185	33.3%
Multigravida	370	66.7%
Parity		
Primipara	208	37.5%
Multipara	347	62.5%
Antenatal care follow-up		
Yes	501	90.3%
No	54	9.7%
History of previous institutional delivery at government health facility		
Yes	355	64.0%
No	200	36.0%
Number of birth attendants		
1–2	470	84.7%
3–4	85	15.3%
Sex of the primary birth attendant		
Female	370	66.7%
Male	185	33.3%
Time of giving birth		
Day	254	45.8%
Night	301	54.2%
Duration of stay in the facility		
<24 h	520	93.7%
≥24 h	35	6.3%
Type of delivery		
Spontaneous vaginal delivery	514	92.6%
Cesarean delivery	41	7.4%

The most common form of physical abuse was restricted ambulation during labor, which was reported by nearly half (48.3%) of respondents. Most women (88.6% and 88.3%, respectively) reported that attendants did not introduce themselves by name and did not encourage questions. In total, 74.4% of women stated that curtains or other physical barriers were not used during labor and delivery. More than 95% of participants denied experiencing any form of discriminatory behavior. A large proportion of women (70.3%)

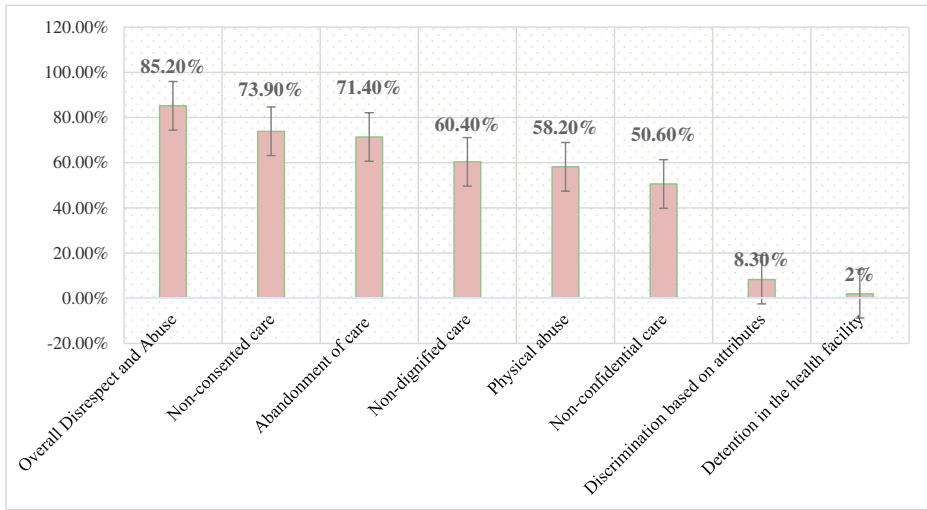


Figure 2. Disrespect and abuse experienced by women giving birth in public health facilities of Dire Dawa City Administration, Eastern Ethiopia, 2020.

reported being left alone while in labor or needing help. Nearly all women (98.0%) denied being detained until they paid the bill for services or reimbursed the health care facility for property damage (Table 3).

Factors associated with maternal disrespect and abuse (DA)

Binary logistic regression was conducted to assess the association of each independent variable with overall DA. Factors with a p -value ≤ 0.25 in bivariate logistic regression were considered in the multivariate logistic regression, after controlling for possible confounders (age of the mother, occupation of the mother, educational level of the mother, gravidity, and previous history of delivery in a government facility).

The type of health facility, number of birth attendants, sex of the main birth attendant, and time of delivery were significantly associated with the outcome variable in multivariate logistic regression analysis. Respondents who gave birth at a hospital were approximately four times more likely

to experience DA than those who gave birth at a health center (AOR = 4.15; 95% CI, 2.29–7.51; $p < 0.001$). Women who were attended by three or four health care providers were 56% less likely to be disrespected and abused than those who were attended by just one or two birth attendants (AOR = 0.44; 95% CI, 0.22–0.88; $p = 0.020$). Women who were attended by male health care providers were over three times more likely to experience DA than women who were attended by female health care providers (AOR = 3.27; 95% CI, 1.57–6.81; $p = 0.002$). Women who delivered at night had 73% lower odds of DA than those who delivered during the day (AOR = 0.27; 95% CI, 0.15–0.48; $p < 0.001$) (Table 4).

Discussion

In this study, we focused on a critical area of maternal care and assessed the magnitude of DA among women who gave birth at public health institutions in DDCA, Eastern Ethiopia. The study findings revealed that during childbirth, 85.2% of women encountered at least one form of

Table 3. Categories and types of disrespect and abuse reported by women giving birth in public health facilities of Dire Dawa City Administration, Eastern Ethiopia, 2020.

Category	Type of disrespect or abuse	Yes (%)	No (%)
Physical abuse	Attendant(s) used physical force (slapping, punching, beating or hitting).	102 (18.4)	453 (81.6)
	Attendant(s) threatened me with beating to obey their orders.	124 (22.3)	431 (77.7)
	*Suturing was done using local anesthesia for pain.	173 (72.6)	69 (27.4)
	Attendant(s) permitted the position of my choice during childbirth.	141 (25.4)	414 (74.6)
	Attendant(s) allowed me to move around (ambulation) during labor.	287 (51.7)	268 (48.3)
Non-consented care	Attendant(s) introduced themselves to me and to my companion.	63 (11.4)	492 (88.6)
	Attendant(s) shared the findings of my initial assessment with me and/or my family.	164 (29.5)	391 (70.5)
	Attendant(s) encouraged me to ask questions.	65 (11.7)	490 (88.3)
	Attendant(s) explained what was being done and what to expect throughout the labor and birth process.	131 (23.6)	424 (76.4)
	*Attendant(s) explained the indications and asked for permission/consent before they cut my perineum.	61 (24.2)	191 (75.8)
	*Attendant(s) explained the indications and asked me to sign a consent form/permission to undergo cesarian delivery.	28 (68.3)	13 (31.7)
	*Attendant(s) explained the indications and asked me for permission before administering medications/oxytocin.	30 (25.6)	87 (74.4)
	Attendant(s) pressured me to undergo cesarian delivery.	16 (2.9)	539 (97.1)
	Attendant(s) did not use curtains or other physical barriers during my labor and delivery.	413 (74.4)	142 (25.6)
Non-confidential care	Individuals other than care providers were allowed to enter the room during delivery.	307 (55.3)	248 (44.7)
	Attendant(s) shared my private information with other non-concerned individuals.	39 (7.0)	516 (93.0)
	Attendant(s) spoke to me in a culturally acceptable manner throughout the course of the labor.	278 (50.1)	277 (49.9)
Non-dignified care	Attendant(s) intimidated/humiliated me at least once.	70 (12.6)	485 (87.4)
	Attendant(s) blamed me for getting pregnant when I was shouting or crying in pain during labor.	66 (11.9)	489 (88.1)
	Attendant(s) shouted at me to calm down.	314 (56.6)	241 (43.4)
	Attendant(s) allowed my companion to enter the delivery room.	396 (71.4)	159 (28.6)

(continued)

Table 3. Continued.

Category	Type of disrespect or abuse	Yes (%)	No (%)
Discrimination based on specific patient attributes	Attendant(s) discriminated against me because of my traditional beliefs.	11 (2.0%)	544 (98.0%)
	Attendant(s) discriminated against me because of my religion.	25 (4.5%)	530 (95.5%)
	Attendant(s) discriminated against me because of my educational level.	9 (1.6%)	546 (98.4%)
	Attendant(s) discriminated against me because of my residence.	14 (2.5%)	541 (97.5%)
	Attendant(s) discriminated against me because of my age.	19 (3.4%)	536 (96.6%)
Abandonment of care	Attendant(s) left me alone while I was in labor or needed help.	390 (70.3%)	165 (29.7%)
	I gave birth alone in the health facility because care providers were not present.	27 (4.9%)	528 (95.1%)
	I experienced a potentially life-threatening condition and I cried out for help, but no one arrived in time.	271 (48.8%)	284 (51.2%)
Detention in health facility	Attendant(s) detained me until I paid the bills for services or reimbursed for damage to property belonging to the health institution.	11 (2.0%)	544 (98.0%)

*n < 555; some women reported that the statement was not applicable.

DA. Even though the Ethiopian Ministry of Health advocates for compassionate and respectful care in all health care settings, this finding emphasizes that an unacceptably high number of women still experience DA. The finding is higher than those of other studies in northern and western regions of Ethiopia.^{6,12,27} The incongruence between these results mainly stems from variation in the study periods. The present study was conducted during the COVID-19 pandemic, possibly giving rise to undesired attitudes and practices among health care providers owing to the stressful situation. Additionally, sociodemographic and cultural differences across the country contribute to variable results.

Compared with our findings, the degree of DA has been reported to be higher in health institutions in Jimma (91.7%)²¹ and Arba Minch town (98.9%).¹⁷ This is probably because the sample size in these studies

was smaller than that in the current study and may have inflated the magnitude of DA. Our study results were higher than those reported in neighboring Tanzania²⁸ and Kenya,²⁹ with a 15% and 20% prevalence, respectively. This discrepancy may be owing to sociocultural and economic differences affecting health professionals' behavior and reactions in clinical care.

The Ethiopian health sector is divided into primary, secondary, and tertiary care levels, in which the former includes primary hospitals and health centers, and the latter two comprise general and specialized hospitals. Immediately after the start of the COVID-19 pandemic, most secondary and tertiary level facilities in the country were modified to accommodate the expected influx of patients infected with SARS-CoV-2. As a result, the quantity and quality of essential services offered in these settings declined considerably.^{30,31} The findings of

Table 4. Bivariate and multivariable analysis of factors associated with disrespect and abuse during child-birth among women who gave birth in public health facilities of Dire Dawa City Administration, Eastern Ethiopia, 2020.

Variables	Overall disrespect and abuse		COR (95% CI)	AOR (95% CI)	p-value
	DA	No DA			
Type of health facility					
Health center	189 (40%)	60 (73.2%)	1	1	
Hospital	284 (60%)	22 (26.8%)	4.10 (2.43–6.91)	4.15 (2.29–7.51)*	<0.001
Mother's age, years					
15–19	20 (87%)	3 (13%)	1	1	
20–24	87 (88.8%)	11 (11.2%)	1.19 (0.30–4.65)	1.48 (0.09–2.51)	0.665
25–29	186 (88.8%)	24 (11.4%)	1.16 (0.32–4.21)	1.67 (0.22–2.02)	0.680
30–34	124 (81%)	29 (19%)	0.64 (0.18–2.30)	0.66 (0.28–1.54)	0.247
>35	56 (78.9%)	15 (21.1%)	0.56 (0.15–2.14)	0.23 (0.54–2.78)	0.384
Mother's occupation					
Homemaker	168 (35.5%)	45 (54.9%)	1	1	
Government	177 (37.4%)	20 (24.4%)	2.37 (1.34–4.18)	2.24 (0.63–2.77)	0.428
Self-employed	128 (27%)	17 (20.7%)	2.02 (1.10–3.69)	1.82 (0.91–3.65)	0.550
Mother's educational level					
Illiterate	54 (70.1%)	20 (29.9%)	1	1	
Primary	224 (87%)	33 (13%)	2.51 (1.34–4.72)	1.10 (0.39–3.09)	0.172
Secondary	80 (85%)	14 (15%)	2.12 (0.98–4.55)	1.66 (0.28–1.86)	0.471
College or university	115 (88.5%)	15 (11.5%)	2.84 (1.35–5.97)	1.58 (0.64–3.91)	0.852
Gravidity					
Primigravida	167 (35.3%)	306 (64.7%)	1	1	
Multigravida	18 (22%)	64 (78%)	0.52 (0.29–0.90)	0.88 (0.33–2.35)	0.794
Previous history of delivery at a government facility					
Yes	292 (61.7%)	181 (38.3%)	1	1	
No	63 (76.8%)	19 (23.2%)	2.06 (1.19–3.55)	1.27 (0.53–3.00)	0.594
Number of birth attendants					
1–2 attendants	408 (86.3%)	65 (13.7%)	1	1	
3–4 attendants	62 (75.6%)	20 (24.4%)	0.49 (0.28–0.87)	0.44 (0.22–0.88)*	0.020
Sex of the main birth attendant					
Female	298 (63%)	175 (37%)	1	1	
Male	72 (87.8%)	10 (12.2%)	4.23 (2.13–8.41)	3.27 (1.57–6.81)*	0.002
Time of birth					
Day	234 (49.5%)	239 (50.5%)	1	1	
Night	20 (24.4%)	62 (75.6%)	0.33 (0.19–0.56)	0.27 (0.15–0.48)*	<0.001

*AOR < 0.05.

DA, disrespect and abuse; COR, crude odds ratio; AOR, adjusted odds ratio.

our study build on the evidence in that the odds of encountering DA among laboring women were higher among those who delivered in a hospital versus delivering in a health center. The results of local studies in northern Shewa¹¹, Wolega¹², Arbaminch¹⁷,

and Jimma²¹ were also correlated with the current findings.

In the present study, we revealed that experiencing DA was less likely among women who were attended by three or four providers than those attended by

only one or two providers. This finding could be owing to a system of checks and balances amongst a team of care providers, which can substantially reduce the likelihood that care providers would engage in undesirable behaviors and actions that jeopardize the quality of care.

According to this study, women who were attended by male health care providers were more likely to encounter DA than those attended by female providers. This finding differs from those of a study in North Shewa. The contradictory findings between these studies might be related to sociodemographic or methodological differences. In line with the present study, a survey from Jimma showed that the odds of DA were lower for women who were attended by female health workers.²¹ According to the available national evidence, most women face DA during childbirth in public health facilities, and DA may also be experienced by female health care providers. As a result, female health care providers may have more empathy for pregnant and laboring women and could be more reluctant to engage in DA. However, more exploratory evidence is required to fully comprehend this relationship.

Women who gave birth at night were less likely to be exposed to DA than those who delivered during the daytime. In contrast, another study in Addis Ababa showed an opposite finding.³² This disparity could be attributed to the relatively high daytime temperature in our study area, which may cause exhaustion and stress among health care providers, leading them to engage in DA toward laboring women.

Limitations

The temporal sequence of events could not be determined owing to the cross-sectional nature of the study design, limiting inference of a cause and effect relationship. There were no objective observations of

care provision that could have validated our participants' subjective reports. In this study, we only assessed the women's perspectives and did not investigate providers' experiences of attending deliveries in their specific contexts. Finally, further elaboration of details regarding behaviors and circumstances was not requested from study participants.

Conclusion and recommendations

Abusive and disrespectful care in health facilities is a serious issue that requires immediate attention to promote women-friendly care. According to the findings of this study, an unacceptably high number of women who gave birth in public health facilities in DDCA experienced DA. Women who delivered in a hospital or who were attended by male health care providers were more likely to experience DA whereas women who were attended by more than two caregivers and those delivering at night were less likely to experience DA. Health care providers in DDCA should be educated on the importance of respectful maternal care. The regional health bureau should conduct health care provider training and enforce RMC compliance. Recruitment of additional personnel may be beneficial to alleviate excessive workloads imposed on care providers, particularly during the COVID-19 pandemic. Qualitative research involving pregnant and laboring women, health care providers, and health facility managers would provide a more comprehensive understanding of the problem of DA toward women during childbirth in Ethiopia.

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Authors' contributions

SG conceived the study, conducted the statistical analysis, and drafted the manuscript. BH and LA participated in data acquisition, analysis, and interpretation. ATG and BH were involved in data analysis, funding acquisition, and drafting of the manuscript. All authors collaborated in preparing, reviewing, and approving the manuscript.

Data availability statement

All necessary data for this study are included in the manuscript; however, additional data may be obtained from the corresponding author upon reasonable request.

Declaration of conflicting interests

The authors declare that there is no conflict of interest.

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References

1. The Federal Democratic Republic of Ethiopia Ministry of Health. *Health Sector Transformation Plan 2015/16–2019/20*. 2015. Addis Ababa, Ethiopia.
2. Ethiopian Public Health Institute (EPHI) and ICF. *Mini Demographic and Health Survey* 2019. Rockville, Maryland.
3. Central Statistical Agency (CSA) and ICF. *Ethiopian Demographic and Health Survey*. 2016. Addis Ababa, Ethiopia, and Rockville, Maryland, USA: CSA and ICF.
4. Federal Democratic Republic of Ethiopia Ministry of Health. *National CRC Training Participant Manual*. 2017. Addis Ababa, Ethiopia.
5. White Ribbon Alliance. *Respectful Maternity Care: The Universal Rights of Women & Newborns*. 2015. USA.
6. Banks KP, Karim AM, Ratcliffe HL, et al. Jeopardizing quality at the frontline of health-care: prevalence and risk factors for disrespect and abuse during facility-based childbirth in Ethiopia. *Health Policy Plan* 2018; 33: 317–327. DOI: 10.1093/heapol/czx180.
7. Mihret H, Atnafu A, Gebremedhin T, et al. Reducing Disrespect and Abuse of Women During Antenatal Care and Delivery Services at Injibara General Hospital, Northwest Ethiopia: A Pre-Post Interventional Study. *Int J Womens Health* 2020; 12: 835–847. DOI: 10.2147/ijwh.S273468.
8. Bobo FT, Yesuf EA and Woldie M. Inequities in utilization of reproductive and maternal health services in Ethiopia. *Int J Equity Health* 2017; 16: 105. 2017/06/21. DOI: 10.1186/s12939-017-0602-2.
9. Nigusie A, Azale T, Yitayal M, et al. Institutional delivery and associated factors in rural communities of Central Gondar Zone, Northwest Ethiopia. *PloS One* 2021; 16: e0255079. 2021/07/23. DOI: 10.1371/journal.pone.0255079.
10. Eshete T, Legesse M and Ayana M. Utilization of institutional delivery and associated factors among mothers in rural community of Pawe Woreda northwest Ethiopia, 2018. *BMC Res Notes* 2019; 12: 395. 2019/07/14. DOI: 10.1186/s13104-019-4450-6.
11. Adinew Y, Hall H, Marshall A, et al. Disrespect and abuse during facility-based childbirth in central Ethiopia. *Glob Health Action* 2021; 14: 1923327. DOI: 10.1080/16549716.2021.1923327.
12. Bobo FT, Kasaye HK, Etana B, et al. Disrespect and abuse during childbirth in Western Ethiopia: Should women continue to tolerate? *PloS One* 2019; 14: 1–15. DOI: 10.1371/journal.Pone.0217126.
13. Burrowes S, Holcombe SJ, Jara D, et al. Midwives' and patients' perspectives on disrespect and abuse during labor and delivery care in Ethiopia: a qualitative study. *BMC Pregnancy Childbirth* 2017; 17: 263–263. DOI: 10.1186/s12884-017-1442-1.
14. Gebremichael MW, Worku A, Medhanyie AA, et al. Mothers' experience of disrespect

- and abuse during maternity care in northern Ethiopia. *Glob Health Action* 2018; 11: 1465215–1465215. DOI: 10.1080/16549716.2018.1465215.
15. Kebede AA, Taye BT, Wondie KY, et al. Adherence to respectful maternity care guidelines during COVID-19 pandemic and associated factors among healthcare providers working at hospitals in northwest Ethiopia: A multicenter, observational study. *Clin Epidemiol Glob Health* 2021; 12: 100830. 2021/09/22. DOI: 10.1016/j.cegh.2021.100830.
 16. Mengesha MB, Desta AG, Maeruf H, et al. Disrespect and Abuse during Childbirth in Ethiopia: A Systematic Review. *Biomed Res Int* 2020; 2020: 8186070–8186070. DOI: 10.1155/2020/8186070.
 17. Ukke GG, Gurara MK and Boynito WG. Disrespect and abuse of women during childbirth in public health facilities in Arba Minch town, south Ethiopia – a cross-sectional study. *PLoS One* 2019; 14: 1–17. DOI: 10.1371/journal.pone.0205545.
 18. Wassihun B, Deribe L, Worede N, et al. Prevalence of disrespect and abuse of women during child birth and associated factors in Bahir Dar town, Ethiopia. *Epidemiol Health* 2018; 40: e2018029. 2018/07/31. DOI: 10.4178/epih.e2018029.
 19. Sheferaw E, Bazant E, Gibson H, et al. Respectful maternity care in Ethiopian public health facilities. *BMC Reproductive Health* 2017; 14: 12. DOI: 10.1186/s12978-017-0323-4.
 20. Asefa A, Morgan A, Bohren M, et al. *Lessons learned through respectful maternity care training and its implementation in Ethiopia: an interventional mixed methods study*. Springer, 2020.
 21. Siraj A, Tekla W and Hebo H. Prevalence of disrespect and abuse during facility based child birth and associated factors, Jimma University Medical Center, Southwest Ethiopia. *BMC Pregnancy Childbirth* 2019; 19: 185–180. DOI: 10.1186/s12884-019-2332-5.
 22. Elm E, Altman DG, Egger M, et al. The Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) statement: guidelines for reporting observational studies. *J Clin Epidemiol* 2008; 61: 344–349. DOI: 10.1016/j.jclinepi.2007.11.008.
 23. Dire Dawa Health Bureau. *Annual report of the 2019/20 fiscal year*. 2020. Dire Dawa, Ethiopia.
 24. Dire Dawa City Administration Health Bureau. *Woreda base plan of the 2019/20 fiscal year*. 2020. Dire Dawa, Ethiopia.
 25. World Health Organization. *WHO recommendations Intrapartum care for a positive childbirth experience*. 2018. Geneva, Switzerland
 26. Federal Ministry of Education. *Education Statistics Annual Abstract September 2019–March 2020*. 2020. Addis Ababa, Ethiopia.
 27. Wassihun B, Deribe L, Worede N, et al. Prevalence of disrespect and abuse of women during child birth and associated factors in Bahir Dar town, Ethiopia. *Epidemiol Health* 2018; 40: 1–8. DOI: 10.4178/epih.E2018029.
 28. Kruk ME, Kujawski S, Mbaruku G, et al. Disrespectful and abusive treatment during facility delivery in Tanzania: a facility and community survey. *Health Policy Plan* 2018; 33: e26–e33. 2018/01/06. DOI: 10.1093/heapol/czu079.
 29. Abuya T, Warren CE, Miller N, et al. Exploring the prevalence of disrespect and abuse during childbirth in Kenya. *PLoS one* 2015; 10: e0123606. 2015/04/18. DOI: 10.1371/journal.pone.0123606.
 30. Assefa N, Sie A, Wang D, et al. Reported Barriers to Healthcare Access and Service Disruptions Caused by COVID-19 in Burkina Faso, Ethiopia, and Nigeria: A Telephone Survey. *Am J Trop Med Hyg* 2021; 105: 323–330. 2021/06/24. DOI: 10.4269/ajtmh.20-1619.
 31. Dandena F, Teklewold B and Anteneh D. Impact of COVID-19 and mitigation plans on essential health services: institutional experience of a hospital in Ethiopia. *BMC Health Serv Res* 2021; 21: 1105. 2021/10/17. DOI: 10.1186/s12913-021-07106-8.
 32. Birhane T. *Disrespect & Abuse during childbirth in Yeka Sub- City, Ethiopia*. Master Thesis, Addis Ababa University, Addis Ababa, Ethiopia, 2019.