

Status, Associated Factors, and Reasons for Bypassing the Childbirth Center among Postpartum Women in the Dire Dawa Administration, Ethiopia: a Mixed Study

Aminu Mohammed^{1*}, Hassen Mosa³, Mickiale Hailu¹, Tewodros Getnet² and Yibekal Manaye²

¹Department of Midwifery, College of Medicine and Health Sciences, Dire Dawa University, Dire Dawa, Ethiopia

²Department of Public Health, College of Medicine and Health Sciences, Dire Dawa University, Dire Dawa, Ethiopia

³Department of Midwifery, College of Medicine and Health Sciences, Werabe University, Werabe, Ethiopia

*Corresponding Author

Aminu Mohammed, Department of Midwifery, College of Medicine and Health Sciences, Dire Dawa University, Dire Dawa, Ethiopia.

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Abstract

Background: Childbirth in nearby health facilities is an important strategy to reduce complications for mothers and newborns, including death. Bypassing nearby birthing health facilities is common in developing countries. However, there is a lack of data in the study area on the extent and reasons for bypassing. Therefore, this study was aimed at assessing these gaps.

Methods: A facility-based mixed study was conducted at the Dire Dawa administration, Ethiopia, from December 1–30, 2022. Simple random (quantitative) and purposive (qualitative) sampling techniques were used. Data were collected through interviews using structured (quantitative) and semi-structured (qualitative) questionnaires. Quantitative data were entered and cleaned by Epi DATA (Version 3.1) and analyzed using SPSS (Version 22). A P-value of 0.05 or less at multivariate with 95% confidence intervals was considered statistically significant. Qualitative data were thematically analyzed.

Results: 635 participants (quantitative) and twelve for the qualitative analysis were included. The overall bypass was 30.9%. Higher age group (AOR = 2.34, 95% CI: 1.43–3.82), rural residence (AOR = 1.89, 95% CI: 1.11–3.22), no formal education (AOR = 2.26, 95% CI: 1.23–4.16), obstetric care needs during antenatal care (AOR = 2.37, 95% CI: 1.33–4.22), and health professionals' behavior (AOR = 3.10, 95% CI: 1.99–4.78) were associated with a higher likelihood of bypassing.

Conclusion: Bypassing childbirth health facilities was moderate. Perception, health professionals, and facility-related factors were the main identified themes in the qualitative results. Stakeholders recommended improving obstetrics services and researchers conducting additional research.

Key Words: Bypassing, Birthing Center, Reasons

List of abbreviations

ANC: Antenatal Care, AOR: Adjusted Odds, CI: Confidence Interval, COR: Crude Odds Ratio, SPSS: Statistical Package for Social Science

1. Introduction

Childbirth at a health facility by a skilled birth attendant is one of the essential parts of the Sustainable Development Goal (SDG), a global key strategy to end preventable maternal and newborn obstetric complications, including deaths that may arise during labour and childbirth [1-3]. However, variations in obstetric complications, including maternal mortality, remain one of the starkest health injustices in the world [4,5]. And this is especially

true in low-resource countries, including Ethiopia [6,7].

Bypassing available health facilities contributes to obstetric complications such as antepartum hemorrhage, fetal distress, cord prolapse, uterine rupture, and others, as well as death [8-10]. This is factual, especially if the bypasser moves far, like from rural to urban health facilities [11,12]. Additionally, it may cause a community to have negative perceptions of a health facility, which may cause

other pregnant women to underutilize institutional delivery at nearby health facilities [13-17]. Still, avoiding the nearby health facility exposes the woman and her family to additional costs and wastes health-care resources [6,18-20]. Moreover, bypassing the nearby health facility creates an inappropriate self-referral burden on the other health facility, and this again indirectly affects other obstetric care using women, like long waiting times, delayed emergency obstetric care, unequal distribution of skilled birth attendants, and associated complications of labour and childbirth [11,15,21-23]. Furthermore, avoiding available childbirth facilities has serious consequences for maternal health service delivery and human resources within a health system [13,20,24-27].

Among the major reasons for bypassing care, studies indicate reasons related to health facilities like a lack of functionality in emergency obstetric care, failing to meet the obstetric care needs of pregnant women during their antenatal care like laboratory tests, a lack of drugs and equipment [13,24-29].

Similarly, studies cite a history of pregnancy-related complications, perceived quality, and cost of the nearest health care facility as reasons for not going there [10,14,15,17,19,20,26,27,29,30].

Correspondingly, lack of respect and abuse by health professionals during delivery care, as well as low levels of trust in health care workers, are among stated reasons [13,16,31-34].

However, the status and reasons of bypassing a childbirth center lack investigation nationally and in the study area. Therefore, this study was aimed to explore it in-depth in a mixed study design, and this helps to fill the information gap and facilitates intervention in the prevention of obstetric complications that may occur due to bypassing the nearby health facilities.

2. Methods and Materials

2.1. Study setting and Design

A facility-based mixed (quantitative cross-sectional and phenomenological qualitative) study was conducted in Dire Dawa administration, eastern Ethiopia, from December 1-30, 2022. Dire

Dawa administration is located about 515 kilometers east of Addis Ababa, the capital city of Ethiopia, and 311 kilometers west of Djibouti port. The administration is bordered by the Shinile Zone of the Somali National Regional State on the north, east, and west and the eastern Hararge Zone of the Oromia National State on the northwest, south, south-east, and east. It has a total population of 521,000. The rural part of this region has a population of 188,000 spread over four rural kebeles (Biyo-awale, Wahil, Jeldessa, and Haselisso), and there are 38 sub-kebeles under these four kebeles (the smallest administrative unit). While the urban part (Dire Dawa City) has 9 kebeles, 6 hospitals (two public and four private), 17 health centers, and 34 health posts. Additionally, there are a total of 58 different level clinics, 35 pharmacies, 35 drug shops, and 2 non-governmental clinics (Family Guidance and Mari Stops International Clinics). 38 health facilities (6 hospitals, 17 health centers, 10 higher clinics, and 5 special clinics) provide skilled birth attendance services. In 2022, this administrative region reported having 13,386 institutional deliveries, many major obstetric complications like retained placenta related to home deliveries, antepartum hemorrhages, prolonged labor, fetal asphyxia related to meconium staining, among many others, and sixteen maternal deaths [35].

Study settings: Eight public health centers were selected using the lottery method, both from urban (Number-one, Gendekore, Gende-garad, and Gorro) and rural (Biyo-awale, Jeldessa, Jelobelina, and Lege-Oda health centers) sites.

2.2. Sample Size and Sampling Procedure

The sample size was determined using a single population proportion formula considering the following assumptions: standard normal distribution ($z = 1.96$), 95% level of significance, 4% margin of error, proportion = 50%, and 10% non-response rate. The final sample size became 660. But 635 postpartum women who delivered at selected health centers were randomly selected for the quantitative study, and 12 participants (2 from each health center) were purposefully selected for the qualitative study. However, those who were critically ill and unable to respond were excluded (Figure 1).

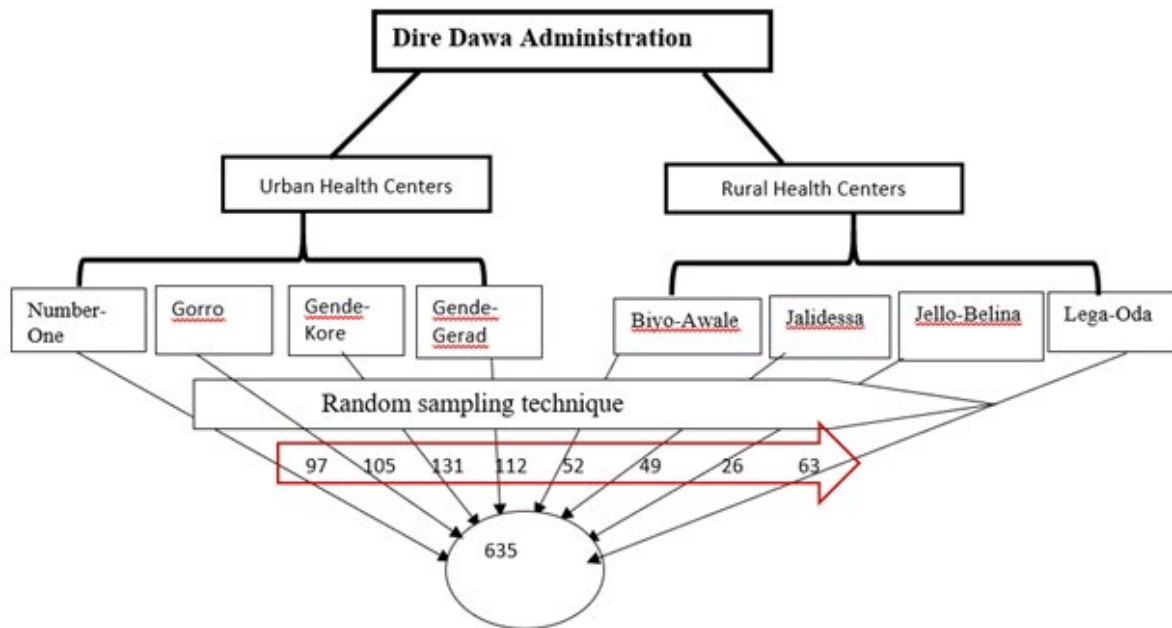


Figure 1: Randomly collected samples in each selected health center during the study period at Dire Dawa administration, eastern Ethiopia, 2022

3. Data Collection Methods

3.1. Quantitative Part

The data was collected via face-to-face interview using a pre-tested, interviewer guided, structured questionnaire that was adapted from literature designed for the same study purpose, and then variables were reviewed to suit the local context [26,27,29]. A total of 10 BSc midwives were recruited for data collection, and three MSc midwives supervised the whole process.

3.2. Qualitative Part

Qualitative data was collected by 3 BSc midwives who have experience with qualitative data collection through in-depth interviews (IDI) using semi-structured questions. The principal investigator was moderating the in-depth interview (IDI) and assisted by an experienced note-taker. After the note taker and the interviewer introduce themselves, the purpose of the study and the confidentiality of the data are told to the participants, and then the probing questions are forwarded to the participants. All interviews were tape recorded and transcribed in full text.

3.3. Operational Definitions

a. Bypassers

Bypassers are postpartum women who bypassed the nearest birthing center, whether they were attending their ANC or not, and delivered at another health center where they chose it [26,27,29]. While "non-bypassers" are those who gave birth at the nearest birthing health, center at which they were attending their ANC or who had no ANC follow up and who came directly to the health center [20,26,29].

b. Bypassers Status

An outcome variable was categorized as "bypassers" (coded as 1) and "non-bypassers" (coded as "0") [20,26,29].

4. Data Quality Control

For the quantitative part, the questionnaire was developed in English and translated into the local languages (Afan Oromo, Somali, and Amharic) and then back to English to maintain its consistency. Two days of training were provided to all data collectors and supervisors. We performed a pretest on 5% of the sample size out of the selected health centers (Dechatu, at the urban site, and Wahil health center, at the rural site) 2 weeks before the actual data collection. Based on the findings of the pretest, we made minor modifications to the questionnaire. The data collection process was closely supervised, and the completeness of each questionnaire was checked by the investigators and supervisors daily. Data was entered into the EPI DATA software as part of data management. During data cleaning, a logical checking technique was used to identify the errors. Questionnaires are secured in a safe place for confidentiality and as a backup for later, in case a check is necessary. Finally, double data entry was done by two data clerks, and the consistency of the entered data was cross-checked.

For the qualitative part, a pre-test in one key note and in-depth interviews at the Dire Dawa city administration (non-selected health centers: Dechatu and Wahil) were conducted for consistency and possible modification. The qualitative design is prone to bias, but open-ended questions were used to avoid acquiescence bias, and two days of training were given for the data collectors regarding in-depth interviews, taking keynotes, and using a tape recorder.

The recorded data were listened to repeatedly to understand the responses of each participant and transcribed directly after each interview by experts. Each sample response and each transcription were coded to check the consistency of the data. The in-depth interviews were conducted privately. The following strategies were used to increase the credibility, transferability, dependability, conformability, and trustworthiness of the study: (a) triangulation; (b) peer debriefing, and (c) inquiry auditing.

Findings were triangulated through the use of multiple coders. The coders then held meetings to compare the outcomes; where inconsistencies were noted, they were discussed and resolved through consensus. In this study, the debriefer was another faculty member who is an expert in qualitative approaches. To increase the dependability of the findings, an inquiry audit was done. Auditors (the first author and two co-authors) examined the research process and findings to assure their accuracy, including how records are kept during each step of data collection and analysis. For this study, these records included: (a) the raw data of the interviews; (b) field notes; (c) data reduction and analysis trails; (d) reflexive memos; (e) notes describing the trustworthiness process; and (f) notes describing the theoretical frameworks.

4.1. Data Processing and Analysis

a. Quantitative Part

The data were coded and entered into Epi Data (Version 3.1) and exported to SPSS (Version 22) statistical software for analysis. A univariate analysis was used to describe the frequency distribution variables. We coded the outcome variables as "1" for "bypassers" and "0" for "non-bypassers." The association between the outcome

and independent variables was analyzed using a logistic regression model. Covariates with a p-value less than 0.25 were retained and entered into the multivariable logistic regression analysis using a forward step-wise approach. A multicollinearity test was performed to determine the linear correlation among the independent variables using the variance inflation factor (>10) and standard error (>2). The goodness-of-fit test was performed using the Hosmer–Lemeshow test ($p > 0.05$). For an outcome variable, an adjusted odds ratio (AOR) with a 95% confidence interval (CI) and a p-value of less than 0.05 was considered statistically significant.

b. Qualitative Part

The data was analyzed thematically using computer-assisted qualitative data analysis software ATLAS-ti (Version 7). The transcribed data was entered into the software, and similar ideas were organized together to create codes. Then three major themes were derived from the codes in the transcribed data and translated into an English version by language experts. Their inductive meaning was extracted using the verbatim accounts of participants. The final report was developed using the narrative analysis method.

5. Quantitative Results

5.1. Socio-Demographic Characteristics

A total of 635 study participants were included, yielding a response rate of 96.2%. The respondents' ages ranged from 18 to 40 years (mean = 27 years, SD = 6.5 years). The majority (91.2%) were married, and more than half (57.6%) were from rural areas (Table 1).

Variables	Category	Frequencies	Percentage
Age (in completed years)	35 and above	240	37.8
	25-34	219	34.5
	24 and less	176	27.7
Residence	Rural	366	57.6
	Urban	269	42.4
Level of education(women)	No formal education	123	19.4
	Primary level	216	34.0
	Secondary level	134	21.1
	Post-secondary level	162	25.5
Marital status	Married	579	91.2
	Single	35	5.5
	Divorced	13	2.0
	Widow	8	1.3
Level of education (husbands, n=579)	No formal education	109	18.8
	Primary level	230	39.7
	Secondary level	130	22.5
	Post-secondary level	110	19.0
Occupation	House wife	181	28.5
	Merchant	243	38.3
	Private employee	61	9.6
	Public employee	88	13.9
	Daily laborer	62	9.8
Monthly income	<100USD	176	27.7
	100-150USD	385	60.6
	>150 USD	74	11.7
Religion	Muslim	283	44.6
	Orthodox	113	17.8
	Protestant	217	34.2
	Catholic	22	3.5

Table 1: Socio-demographic characteristics of study participants, Dire Dawa Administration, eastern Ethiopia, 2022 (n = 635)

Obstetric Characteristics, Co-Medical Illness, and Health Care Facility-Related:

More than half (54.8%) of the participants were multiparous, and the majority (94.3%) had ANC visits (Table 2).

Variables	Category	Frequencies	Percentage
Parity	Primiparas	287	45.2
	Multiparous	348	54.8
ANC	Yes	599	94.3
	No	36	5.7
Number of ANC(n=599)	1-2	318	53.1
	3 and more	281	46.9
Pregnancy status	Planned	347	54.6
	unplanned	287	45.2
Obstetrics complication/s (current)	Yes	84	13.2
	No	551	86.8
Type obstetrics complication(current)	Anemia	28	33.3
	post pregnancy	9	10.7
	Gestational hypertension	22	26.2
	Oligohydramnios	11	13.1
	Decreased fetal movement	14	16.7
History of institutional delivery(-multiparous=348)	Yes	326	93.7
	No	22	6.3
Past obstetrics complication/s(n=326)	Yes	54	16.6
	No	272	83.4
Type of obstetrics complication(past , n=54)	Bleeding	32	59.3
	Infection	13	24.1
	Tear(birth canal and perineum)	9	16.7
Presence of co-medical illness	Yes	85	13.4
	No	550	86.6
Types of co-medical illness	Intestinal parasites	29	34.1
	DM	10	11.8
	Bacterial infection	34	40
	chronic hypertension	12	14.1
Who decided to bypass(n=196)	Self	79	40.3
	husband	23	11.7
	Friends	45	23
	Both(self +husband)	28	14.3
	Family and relatives	21	10.7
Perceived health care workers' behavior	"Not good"	225	35.4
	"Good"	410	64.6
Perceived cost of obstetrics (child birth) care services	"Expensive"	264	41.6
	"Affordable"	371	58.4
Perceived quality of obstetric cares	"poor"	362	57.0
	"Good"	273	43.0

Table 2: Obstetric characteristics, co-medical illness, and health care facility related variables, Dire Dawa Administration, eastern Ethiopia, 2022 (n = 635)

5.3. Status and Factors Associated With Bypassing a Childbirth Center

At childbirth centers, the overall bypass rate was 30.9% (95% CI: 27.1%–34.55 %).

In the multivariable logistic regression analysis, women's age group of 35 or older (AOR = 2.34, 95% CI: 1.43–3.82), rural

residence (AOR = 1.89, 95% CI: 1.11–3.22), no formal education (AOR = 2.26, 95% CI: 1.23–4.16), failure in obstetric care needs during antenatal care (AOR = 2.37, 95% CI: 1.33–4.22), and health professionals' behavior (AOR = 3.10, 95% CI: 1.99–4.78) were associated with bypassing childbirth health facility (Table 3).

Variables	Category	Bypassing birth center		COR (95% CI)	AOR (95% CI)	P-value
		Yes	No			
Age (in completed years)	35 and above	50(20.8%)	190(79.2%)	2.82(1.83-4.34)***	2.34 (1.43-3.82)	0.002.
	25-34	71(32.4%)	148(67.6%)	1.55(1.03-2.34)*	1.32 (0.83-2.10)	0.001
	24 and less	75(42.6%)	101(57.4%)	1	1	
Residence	Rural	87(23.8%)	279(76.2%)	2.18(1.55-3.08)***	1.89(1.11-3.22)	0.020
	Urban	109(40.5%)	160(59.5%)	1	1	
Education level	No formal education	23(18.7%)	100(81.3%)	2.70(1.55-4.70)***	2.26(1.23-4.16)	.008
	Primary level	53(24.5%)	163(75.5%)	1.91(1.22-2.97)**	1.86(1.13-3.08)	.015
	Secondary level	58(43.3%)	76(56.7%)	0.81(0.51-1.30)	1.05(0.62-1.76)	.865
	Post-secondary level	62(38.3%)	100(61.7%)	1	1	
Occupation	House wife	44(24.3%)	137(75.7%)	2.10(1.14-3.87)*	1.46(0.73-2.89)	.283
	merchant	72(29.6%)	171(70.4%)	1.60(0.90-2.86)	1.46(0.77-2.78)	.249
	private employee	20(32.8%)	41(67.2%)	1.38(0.66-2.90)	1.43(0.63-3.25)	.387
	public employee	35(39.8%)	53(60.2%)	1.02(0.53-1.99)	1.26(0.61-2.60)	.537
	daily laborer	25(40.3%)	37(59.7%)	1	1	
Parity	multiparity	76(26.5%)	211(73.5%)	1.46(1.04-2.06)*	0.81(0.45-1.44)	0.473
	primiparity	120(34.5%)	228(65.5%)	1	1	
Presence of obstetric complication	Yes	16(19.0%)	68(81.0%)	2.06(1.16-3.66)*	1.30(0.41-4.10)	0.668
	No	180(32.7%)	371(67.3%)	1	1	
Co-medical illness	Yes	16(18.8%)	69(81.2%)	2.10(1.18-3.72)*	1.90(0.60-5.96)	0.271
	No	180(32.7%)	370(67.3%)	1	1	
ANC needs	1-2	83(24.4%)	257(75.6%)	1.92(1.37-2.70)***	2.37(1.33-4.22)	0.003
	3 and more	113(38.3%)	182(61.7%)	1	1	
Health professionals' behavior	"Not good"	36(16.0%)	189(84.0%)	3.36(2.23-5.05)***	3.10(1.99-4.78)	0.000
	"Good"	160(39.0%)	250(61.0%)	1	1	
Health service cost	expensive	70(26.5%)	194(73.5%)	1.42(1.01-2.02)*	1.14(0.80-1.68)	0.522
	affordable	126(34.0%)	245(66.0%)	1	1	
Perceived quality	"Low"	70(26.5%)	194(73.5%)	1.98(1.41-2.78)***	1.08(0.63-1.85)	0.772
	"Good"	126(34.0%)	245(66.0%)	1	1	

Significant at: *p<0.05, **p<0.01, ***p=0.000, 1=reference, Hosmer-Lemeshow test=0.129

Table 3: Bivariate and multivariable analysis of factors associated with bypassing the childbirth center among postpartum women, Dire Dawa Administration, Ethiopia, 2022 (n = 635)

6. Qualitative Results

In the qualitative part, a total of 16 participants were interviewed (in-depth interview). Their average age was 32.1 years; the majority (80% and 73.3%) were multiparous and rural residents, respectively; nearly half (46.7%) were housewives, and all had more than three ANC visits. Three major themes, and under each many sub-themes, were driven for the reasons of bypassing a childbirth health facility: the health care facility, health professionals, and health care facility service users' perception-related reasons.

7. Health Care Facility Related

Many women, especially multiparous mothers, choose to bypass the nearby childbirth health facility for the reason that it fails to meet the obstetric needs during women's antenatal care.

A 29-year-old postpartum woman shared her experience as follows: *A laboratory test was ordered during my ANC visit, but it was not available at that health center; another time, a drug called ranitidine for my gastric problem was ordered, but when I asked the pharmacist, she said it was finished...*(interviewee-11).

A 37-year-old multiparous woman stated, *"I previously had ANC follow-up in a... health center, but they did not provide me iron sulfate even though it was there, and the health care workers did not care for me; they did not give me their full attention."* (Interviewee-9).

A 35-year-old respondent stated that *the health care facility is not fully functional, especially during the night. In my last experience, as you know, people coming from rural villages pay a lot of money for transportation. Nevertheless, when we reach there, it is possible that the health care facility is either closed or that health professionals are not there or have gone to sleep. Even if they are open, medications and equipment are often in short supply. Eventually, we end up taking prescriptions to buy from private drugstores. In addition, if the health care workers are woken up from sleep, many times they refer laboring mothers to other health care facilities, like hospitals. These and other issues discourage us from visiting a health facility, even if one is nearby.* (Interviewee-14)

A lack of empowerment or the husband's decision may be reasons for bypassing in some cases.

After I was teared in my previous childbirth, my husband discouraged me from going to that health care facility for labor, claiming that they used to have a better past when there were no modern healthcare services, including a vacuum. (Interviewee-8)

8. Health Care Workers' Related

The qualitative study report revealed that health care workers' behavior (like a lack of respectful care and abuse like insulting, breaking their privacy) is one of the reasons mentioned for bypassing the nearby childbirth health facility.

A 30-year-old mother said that *"health professionals disrespect and insult me in a nearby health center; I do not want to be insulted; I hate such behavior."* Also, *they use abusive language that is unexpected from health professionals.* (Interviewee-5). Another mother said that *health care workers lack ethics; they break my privacy as they want; when I say a word, they replay, "Did you come here to be treated or to order us?"* (interviewee-15).

Women also justified choosing to bypass the nearby childbirth health facility due to the negligence of health professionals.

A 33-year-old rural resident respondent said, *"Some of the professionals had a gap in performing their responsibilities appropriately, and even they had a trend of neglecting their duties."* During my ANC follow-up, they did not always check my blood pressure, did not inquire about any problems that occurred between my ANC visits, did not provide adequate counseling, and did not inquire about my concerns. (Interviewee-3).

Women also stated a lack of trust in health professionals as a reason for avoiding the nearby childbirth health facility.

A 36-year-old participant stated her experience as follows: *"I had antenatal follow-up at a... health center, and I was told that it was a twin pregnancy, but was later confirmed to be 'single' in a different facility." Not only this, my neighbor also had an ANC follow-up at a... health center, and at the ninth month of her pregnancy, she experienced severe crampy abdominal pain for which the health care provider advised her to take medications, assuming it was caused by gastro-intestinal parasites. Later on, she realized that she was actually in true labour and after that, she and I were thus forced to have our child delivered at another health care facility. That experience really eroded my confidence and trust in health professionals' competence, as a result of which I decided to deliver at another health care facility for all of my subsequent children, even if it was very far away.*

9. Health Care Facility Service Users' Perceptions Related Expensive Costs and Poor Quality

Women also avoid the nearby childbirth health facility due to their perception of the cost of obstetric care.

The cost of health care in a... health center, according to a 31-year-old mother, is prohibitively expensive; I cannot afford their costs, such as drug and glucose costs. (Interviewee 1).

A 34-year-old mother said that: *"The obstetric care provided there is of poor quality; for example, the bed for physical examination and the blood pressure measuring equipment are old, even torn, the walls are filthy, and they touch different pregnant women with the same glove, so I was concerned about infection, including HIV transmission"* . (Interviewee-2).

10. Discussion

The present study explored the status, factors associated with, and

reasons for bypassing the childbirth center at public health centers in the Dire Dawa administration, eastern Ethiopia. Based on this, at childbirth centers, the overall bypass rate was 30.9% (95% CI: 27.1%–34.55%). This finding was consistent with the findings of two studies in Ghana: the North West (33.33%) and the East (32.3%) [20,27]. This consistency might be related to the fact that all of the study participants in these studies were from the same population (postpartum women who bypassed a childbirth health facility for some reason), almost all were in a similar physiological state (the post-delivery period), and all were pregnant with a singleton rather than twins or more. Likewise, some socio-demographic characteristics of study participants were highly related, like marital status (the majority were married) and being rural dwellers. Besides being related to the obstetric characteristics of the study participants, the majority were multiparous.

However, the finding of this study was lower than studies conducted in India (37.7%), Madhya Pradesh, India (37%), Nepal (70.2%), Kenya (76.7%), Tanzania (41.8%), and two studies in south Ethiopia, Hosana (67%), and Dilla (65.6%) [18,24-26,29,37]. This inconsistency might be due to differences in study times, sample size, and some socio-demographic characteristics like age, educational level, and residence area. The variation also might be due to the high coverage of ANC follow-up in this study and adequate counseling during ANC.

The odds of bypassing a childbirth health facility were higher among older women (35 or older) and rural residents. The possible reason might be related to the fact that older women might relate their past obstetric experiences with the present, and those rural women might lack some sort of information compared to urban ones [18,20,28,37].

Similarly, women with no formal education and who lacked obstetric care needs during their antenatal care were more likely to bypass a childbirth health facility. This was incongruent with studies "Variation in women's education level and the functionality of a health care facility in terms of supplies, equipment, and the competence of health care workers can be attributed to bypassing the nearest health care facility [20,24,26,27,29,37]." This might be due to the fact that uneducated women might have a lack of awareness about the obstetrics service differences given each level of health care facilities and ought to weigh the risk of bypassing the nearby childbirth health facility instead of complaining about the perceived and real limitations there. Such a gap may be filled through counseling during their ANC visits.

Moreover, the higher likelihood of almost three times bypassing a childbirth center was related to health professionals' behavior. This was a new insight explored in the present study.

Globally, obstetric complications that result in maternal and newborn deaths remain high, although service access and affordability are not major factors in obtaining childbirth services

at a nearby health facility [1,2].

The present study gives in-depth insight into some of the major factors that are affecting women's decision to bypass the nearby childbirth health facility, which is also explored via a qualitative investigation.

One reason that might increase it is the fact that issues that enhance the experience of mothers, such as convenience, privacy, and respect, and providing all-time obstetrics service by competent, disciplined health professionals, are essential and ought to be addressed in a better way.

Our study shows that access to a health care facility and service availability do not always result in childbirth at a nearby health facility, which is in agreement with studies [6,14,24]. This is because of the fact that health care service users' perceptions and health care workers' approaches matter. According to studies, perceived poor quality of care, unwelcoming reception, non-consented care, and physical and verbal abuse are investigated as reasons for bypassing a health care facility [14,16,17,30].

Besides, women who had less autonomy in their decisions, experience from past obstetric complications, lower trust in the competency of health professionals, and their behaviors were mentioned by respondents as major reasons to bypass the nearby childbirth health facility, and this is in line with studies [13,19,25,31,38].

It was also noted that some women bypass childbirth health facilities, anticipating that the facilities will not be fully functional outside the normal working hours (at nights and weekends) and will not meet their obstetric care needs during ANC, labour and delivery, and this was in accordance with studies [19,38]. So, to provide a high quality of care, maternity services should consider and act on the expectations and experiences of women and their families. Furthermore, addressing the phenomenon of bypassing and its associated costs will necessitate effective policy reforms aimed at strengthening health care facilities' service delivery capacities.

11. Conclusion

The extent of bypassing the nearby childbirth health facility was moderate and associated with women's age, education, resident area, obstetrics care during antenatal visits, and health care workers' approaches. In the qualitative analysis, three major themes emerged for the reasons for bypassing a nearby childbirth health facility: the health care facility, health professionals, and service users' perception-related reasons. Stakeholders were advised to increase obstetrics services (supplies, equipment), respectful care, and education while taking pregnant women's residence and education level into account, as well as conduct additional community-based research.

Declaration

We confirm that the manuscript has been read and approved by all named authors and that there are no other persons who satisfied the criteria for authorship but are not listed. We further confirm that the order of authors listed in the manuscript has been approved by all of us

Ethical Approval and Consent to Participate

This study was approved by institutional ethical review board of Dire Dawa Administrative Health Bureau (2015/DDAHB/Oct.,2022). An official letter of permission was given by each studied health centers and given for each data collectors and supervisors. The health center administrators were informed about the objective of the study including the benefits and confidentiality issues. The participants also were informed clearly about the objective, and rights to participate or refuse or withdraw the interview. Study participants' privacy was respected and their confidentiality was maintained throughout the research process by giving code, omitting their names. After all, voluntary informed consent was obtained from each study participant. All protocols were carried out in accordance with relevant guidelines and regulations of Helsinki.

Competing Interests

The authors would like to declare that they have no any competing interests

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