ORIGINAL RESEARCH ARTICLE

Comprehensive abortion care in Eastern Ethiopia: Facility readiness, service availability, and barriers in Eastern Ethiopia

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Abstract

Unsafe abortion remains a major public health problem in Ethiopia due to persistent factors such as poor health facility infrastructure, limited service availability, and barriers that impede providers' ability to deliver the care. Thus, the objective of this study was to assess health facilities' readiness, service availability, and challenges in providing abortion care. A facility-based mixed approach with descriptive cross-sectional and phenomenological study design was conducted in 16 public health facilities in eastern Ethiopia. A simple random sampling technique was employed to recruit the health facilities. Data were collected using KoboToolbox with the WHO Service Availability and Readiness Assessment (SARA) tool. The collected data were exported to Stata 17 for descriptive analysis. The interviews of 17 health professionals were audio-recorded, transcribed, and translated verbatim. The translated data were analyzed thematically. Thirteen (82.3%) health facilities met the minimum requirements (>75%) for readiness, and the service was available in all hospitals and 8 (66.7%) health centers. Key barriers in providing abortion care were the attitude of health professionals, stigma and discrimination, religious and cultural beliefs, and shortage of trained professionals from a qualitative perspective. Access to comprehensive abortion care was impeded by facility readiness, health professionals' personal beliefs, and cultural and religious beliefs. Strengthening the health care system and ensuring professionals know abortion policy and are willing to provide quality care are crucial steps in improving the provision of comprehensive abortion care. *(Afr J Reprod Health 2025; 29 [9s]: 32-45).*

Keywords: Abortion care, facility readiness, service availability, health care providers, barriers

Résumé

L'avortement à risque demeure un problème majeur de santé publique en Éthiopie en raison de facteurs persistants tels que la médiocrité des infrastructures des établissements de santé, la disponibilité limitée des services et les obstacles qui entravent la capacité des prestataires à dispenser les soins. L'objectif de cette étude était donc d'évaluer l'état de préparation des établissements de santé, la disponibilité des services et les difficultés rencontrées pour dispenser des soins d'avortement. Une approche mixte, basée sur les établissements, avec un plan d'étude descriptif, transversal et phénoménologique, a été menée dans 16 établissements de santé publics de l'est de l'Éthiopie. Un échantillonnage aléatoire simple a été utilisé pour recruter les établissements. Les données ont été collectées à l'aide de KoboToolbox et de l'outil d'évaluation de la disponibilité et de l'état de préparation des services (SARA) de l'OMS. Les données collectées ont été exportées vers Stata 17 pour une analyse descriptive. Les entretiens avec 17 professionnels de santé ont été enregistrés, transcrits et traduits mot pour mot. Les données traduites ont été analysées thématiquement. Treize établissements de santé (82,3 %) répondaient aux exigences minimales (> 75 %) en matière d'état de préparation, et le service était disponible dans tous les hôpitaux et 8 centres de santé (66,7 %). Les principaux obstacles à la fourniture de soins d'avortement étaient l'attitude des professionnels de santé, la stigmatisation et la discrimination, les croyances religieuses et culturelles, et le manque de professionnels qualifiés d'un point de vue qualitatif. L'accès à des soins d'avortement complets était entravé par la disponibilité des établissements, les croyances personnelles des professionnels de santé, ainsi que les croyances culturelles et religieuses. Le renforcement du système de santé et la garantie que les professionnels connaissent la politique en matière d'avortement et sont disposés à fournir des soins de qualité sont des étapes cruciales pour améliorer la prestation de soins complets en matière d'avortements. *(Afr J Reprod Health 2025; 29 [9s]: 32-45).*

Mots-clés: Soins d'avortement, état de préparation des établissements, disponibilité des services, prestataires de soins de santé, obstacles

Introduction

Comprehensive Abortion Care (CAC) is the provision of support and information on safe termination of pregnancy, post-abortion care, and treatment of abortion.[1] The World Health Organization (WHO) included CAC in its list of essential healthcare services in 2020 to eradicate unsafe abortion by assisting in the evaluation of the availability and caliber of health services related to abortion. [2] In 1998, the WHO assessed health system readiness to provide emergency obstetric care worldwide by examining the system's ability to perform signal function ("a set of variables that indicate a system's ability to carry out a specified intervention").[3]

Signal function was used to conduct a multi-country analysis in ten different countries,[4] of which indicated significant limitations in the availability of both basic and CAC in all health facilities. For instance, only 23.9% and 37.5% of facilities in Nigeria and Cote d'Ivoire, respectively, could deliver CAC.[2] A lack of access to high-quality abortion care puts many women's and girls' human rights in jeopardy, including the right to life, the right to the best possible physical and mental health, the right to participate in scientific advancement and its realization, the right to freely and responsibly choose the number, spacing, and timing of children, and the right to be free from torture and other cruel, inhuman, and degrading treatment and punishment.[1] Nowadays, international organizations recognize safe abortion care as a fundamental human right and an essential part of sexual and reproductive health and rights.[5]

An estimated 45% of abortions are unsafe among six out of ten induced unintended pregnancies worldwide.[1] Approximately 33 abortions take place each year for every 1,000 women aged 15–49, with minimal differences across Eastern, Middle, Southern, and Western Africa. This rate has remained relatively stable over the last 20 years [6]. In sub-Saharan Africa, 6.2 million unsafe abortions occurred in 2019, and there were 185 per 100,000 abortion-related maternal deaths [6]. Despite the region having continued to bear a high burden of unsafe abortion complications, only a few countries (Zambia, Cabo Verde, Guinea-Bissau, Sao Tome and Principe, and South Africa) have decriminalized abortion, permitting abortion without restrictions[6]. Although abortion-related mortality has significantly decreased in Ethiopia, it still accounts for approximately 4.6 percent of maternal deaths.[7].

Minimizing this mortality largely depends on women's access to suitable and prompt treatment or services. A vital aspect of this care involves a functioning supply chain that guarantees the availability of abortion medications and supplies within the healthcare system, [8] and positive service providers' attitudes and beliefs. Still, there is a growing call from international organizations for responsible stakeholders to ease the barriers that impair timely access to safe abortion care, functional management, and timely provision of non-judgmental service [9]. Further, improving access to CAC within the healthcare system is crucial for fulfilling the Sustainable Development Goals (SDGs).

Although Ethiopia's 2005 reforms to its abortion law and the introduction of technical guidelines aimed at expanding access to safe abortion services brought a significant change in the past two decades, many women and girls continue to experience barriers to timely, safe, and effective safe abortion care (SAC), increasing the likelihood that they undergo unsafe procedures. Furthermore, information is scarce regarding the readiness of health facilities and the challenges of healthcare providers to offer abortion care services in the study area. [10] Therefore, it is pivotal to provide data that will help improve the quality of CAC services. Thus, the objective of this study is to assess the readiness of health facilities, service availability, and challenges of abortion service providers in Eastern Ethiopia.

Methods

Study area and period

This study was conducted at public health facilities in Harar Region and the Dire Dawa City administration, eastern Ethiopia. Harar region has a total population of 232,000 (116,928 are males and 115,072 are females), of which 53,383 are women of reproductive age. The region is located 526 km east of Ethiopia's capital. The region has 2 military, 2 public, and 1 private hospitals, 8 health centers (i.e., 4 urban and 4 rural), 19 health posts, and 10 non-profit private clinics. Hiwot Fana Specialized University Hospital (HFSUH) and Jugal General

Hospital (JGH) provide multi-dimensional aspects of care to patients who need specialized healthcare services, and each hospital delivers the services to more than 5 million people in the catchment area. HFSUH is a teaching hospital run by Haramaya University, whereas JGH is a regional referral hospital of the Harari Regional State.

Dire Dawa is located 515 Km east of the capital and 58 Km from Harar. According to 2022 projections based on the 2007 census, the city has an estimated population of 535,000 (i.e., 270,000 are male and 265,000 are female), of which 139,914 are women of reproductive age [11]. The city administration has 2 public hospitals, 4 private hospitals, 15 health centers, and 32 health posts. The study was conducted from February 1 to February 20/2024.

Study design

A descriptive facility-based cross-sectional study design was used to identify health facility readiness and CAC service availability, whereas a phenomenological study design was used to explore healthcare providers' related barriers to providing CAC.

Source and study population

The source population included all public health facilities and healthcare providers involved in abortion care services across Harar Regional State and Dire Dawa City Administration, while all selected public health facilities and healthcare professionals who were providing CAC were the study population.

Inclusion and exclusion criteria

All public health facilities of Harari Regional State and Dire Dawa City Administration were eligible, and all health care providers who have ever worked or are currently working in the abortion care unit and gynecology ward in the selected public health facilities. However, healthcare providers who were on sick leave, maternity leave, annual leave, or study leave were excluded from the study.

Sample size and sampling procedure

There were 27 health facilities in the study area. We considered 50% based on WHO recommendations for facility selection to obtain an adequate sample of health facilities. Subsequently, four hospitals and 12 health centers were randomly selected from the study area. After proportional allocation, four health centers from Harari regional state and eight health centers from Dire Dawa city administration were selected. A total of 16 public health facilities were included in this study. For the qualitative part, abortion service providers were selected purposively, and the final sample size was determined by the level of information saturation, which was achieved after interviewing 17 health professionals.

Data collection tool and procedure

Health facilities' readiness and service availability were assessed using the tool that was adopted from WHO and UN guidelines, which is a globally harmonized, comprehensive tool (observational checklist modified SARA). [12, 13] It was organized into sections detailing the characteristics of health facilities, six signal function items, and five domains assessing facility readiness. Data collection was conducted by seven bachelor midwives under the supervision of three master's holders' health professions. The data collectors filled out the checklist at the facilities where service is provided through observation and recording.

For the qualitative data collection, we recruited data collectors who were fluent in the local languages (Afaan Oromo, Amharic, and Af Somali). They conducted key informant interviews (KII) using an interview guide that was developed by reviewing literature with healthcare providers at the abortion care unit. The interviews were continued until data saturation (i.e., 17 health professionals) was reached. The key informant interviews were audio-recorded, and field notes were also taken. The healthcare providers spoke about their life experiences when providing CAC to those in need. The tool mainly explored the barriers to CAC service delivery.

Variables

Service availability, health facility readiness Healthcare providers' age, marital status, religion, residence, educational level, and occupation.

Operational definitions

Health facility readiness: In this study, health facility readiness was measured using the SARA tool for specific service readiness across five domains: trained staff, basic equipment, diagnostic capacity, material for manual vacuum aspiration (MVA) procedure, and essential medicine. The health facility that scored a total value of each domain ≥75% was considered ready to provide the abortion service[13].

Service availability: The comprehensive abortion service availability was assessed using the SARA tool: the six signal function items were used for health centers, and in addition to the six functional items, the four comprehensive functions were used to assess the availability of service at hospitals. The health facility, which scored a total value of≥75% was considered as the service was available[12,13].

Health care providers: In this study, these are health personnel who are working in the Gynecology ward or can provide abortion care services in the selected health facilities. It includes professionals such as obstetricians and gynecology specialists, general practitioners (GPs), nurses (diploma and degree), midwives (diploma and degree), and health officers.[14]

Data quality control

Two days of training on data collection tools were given to data collectors and supervisors. The training focused on the tool, ethical considerations, maintaining confidentiality, and the objective of the study. The pretest was done at Haramaya General Hospital to check the understandability of the checklist. The principal investigator and supervisors monitored the overall process of data collection daily. The questionnaire was translated into local (i.e., Amharic, Afan Oromo, and Af Somali) languages to make it understandable to the study participants, and then it was re-translated back to English by language experts to ensure its consistency. The findings of the study were presented using detailed descriptions and quotes for confirmability.

Data processing and analysis: Data were checked for completeness and entered into EpiData version 4.6, and then exported to Stata 17 software for analysis. A summary of the results was presented by text, table, and figure for quantitative data. The qualitative data were transcribed verbatim at the beginning. The transcribed data were translated and then exported to Open Code software 4.03 for further analysis. The analysis began with transcription, data familiarization, selection of quotations, keyword selection, examining the data, giving initial codes, and subsequently, relevant codes were combined to create sub-themes. Then, interrelated sub-themes were grouped to construct major themes. Finally, data within each theme were analyzed to derive relevant insights. The structure and explanation of the result are in line with the data extracted from each theme.

Ethical consideration: The ethical clearance was obtained from the Institutional Health Research Review Committee (IHRERC) of the College of Health and Medical Science of Haramaya University. Official letters of cooperation were submitted to the respective selected public health facilities and the responsible administration bodies. Information regarding the study procedures, potential risks, benefits, and their right to refuse and withdraw at any time during the study was explained to the study participants; then, after informed written voluntary and signed consent was obtained. Participants' confidentiality was maintained by excluding names and identification in the questionnaires.

Results

Health facility-related characteristics

Six health facilities from the Harari regional state and 10 health facilities from the Dire Dawa city administration were included in this study. Of these, 12 (75%) of health facilities were health centers, and four of which were from rural areas.

Service availability

All four hospitals and eight health centers met at least 75% of the WHO's criteria for service

Table 1: Service availability for CAC based on the assessment of basic and comprehensive signal function at public health facilities in eastern Ethiopia, 2024 (n=16)

SN	Service availability indicators	Hospitals (n=4)	Health centers(n=12)	Total (n=16)	Percentage
	Provision of the six basic signal functions in the past 3 months				
1	Performed an induced abortion in the past 3 months	4	7	11	68.75
2	Provided post-abortion contraception in the past 3 months	4	9	13	81.25
3	Administered essential antibiotics in the past 3 months	4	8	12	75
4	Administered intravenous replacement fluid in the past 3 months	4	7	11	68.75
5	Administered oxytocin in the past 3 months	3	2	5	31.25
6	Performed removal of RPC for uterine sizes up to 12 weeks, or PAC in the past 3 months	4	7	11	81.25
SN	**Provision of the four comprehensive signal functions in the past 3 months for hospitals (n=4)**				
1	Performed induced abortion for uterine sizes greater than 12 weeks in the past 3 months	4	NA	4	100
2	Performed removal of retained products of conception (PAC) for uterine sizes greater than 12 weeks	4	NA	4	100
3	Performed blood transfusion in the past 3 months	4	NA	4	100
4	Performed a laparotomy in the past 3 months	3	NA	3	75

availability. Only 11 health facilities had performed induced abortions within the three months preceding the survey. Additionally, 11 facilities had conducted procedures for removing retained products of conception or provided post-abortion care for uterine sizes up to 12 weeks during the same period. However, only five of these facilities had administered oxytocin in the preceding three months. In addition to the basic signal functions, three of the four hospitals fulfilled the requirement to offer four comprehensive signal functions (Table 1).

Service readiness

Among the facilities visited, all except one health center had at least one staff member trained in CAC. However, seven health centers lacked CAC guidelines. Four and six health centers did not have basic equipment such as thermometers and stethoscopes, respectively. Four health centers did not have beds with stirrups necessary for performing MVA. All health facilities provide HIV and pregnancy tests, but three health centers have no hemoglobin and blood typing tests. Oxytocin was available in all facilities; however, misoprostol with or without mifepristone was not found in four health centers. Furthermore, only 6 out of the 12 health centers had anti-pain and antibiotics in their store, which are crucial components for delivering quality comprehensive abortion care (CAC) services (Table 2).

Overall health facility readiness and service availability

Following the evaluation of all health facilities using the SARA tool, even though all hospitals met the minimum standards set for readiness and service availability, only eight and nine out of 12 health centers met the minimum criteria for service availability and readiness to provide CAC, respectively (Table 3).

Socio-demographic characteristics of service providers

Of 17 health professionals approached, 12 were providing abortion care directly, while the remaining had managerial roles in the Gynecology ward. These health professionals had a minimum of one and a maximum of 21 years of experience in abortion care provision. The majority of these respondents were midwives, and their ages ranged from 24 to 40 years. Fifteen (15) of them have attended at least one training in abortion care.

Table 2: Readiness for abortion services among public health facilities in Harar region and Dire Dawa city administration, Eastern Ethiopia, 2024 (n=16)

	Availability of staff and training	**Hospitals (n=4)**	**Health centers (n=12)**	**Total (n=16)**
1	National guideline on CAC	4	5	9
2	Staff trained on CAC	4	11	15
3	Staff trained in surgery can perform a laparotomy	4	NA	4
4	Staff trained in anesthesia	4	NA	4
Basic equipment				
1	Thermometer	4	8	12
2	Stethoscope	4	6	10
3	Blood pressure apparatus	4	12	16
4	Light source	4	12	16
5	Autoclave	4	12	16
6	Anesthesia equipment	4	NA	4
Materials for manual vacuum aspiration				
1	Bed with stirrups	4	8	12
2	MVA aspirator kit	4	12	16
3	Speculum	4	12	16
4	Forceps	4	12	16
5	Tenaculum	4	12	16
6	Gloves	4	12	16
Diagnostic capacity				
1	Hemoglobin	4	9	13
2	Blood typing	4	9	13
3	Cross-match testing	4	NA	4
4	HIV diagnostic capacity	4	12	16
5	Syphilis rapid test	4	11	15
6	Urine test for pregnancy	4	12	16
Essential medicines				
1	Oxytocin	4	12	16
2	Misoprostol with or without mifepristone	4	8	12
3	Injectable antibiotic	4	5	9
4	Doxycycline PO	4	4	8
5	Parenteral analgesia such as diclofenac, tramadol	4	6	10
6	Ibuprofen tablets	4	7	11
7	Intravenous solution with an infusion set	4	9	13
8	Lidocaine 5%	4	9	13
9	Epinephrine(injectable)	4	2	6
10	Halothane(inhalation)	3	NA	3
11	Atropine(injectable)	3	NA	3
12	Thiopental (powder)	3	NA	3
13	Suxamethonium bromide(powder)	3	NA	3
14	Ketamine(injectable)	3	NA	3

NA: Not applicable

Themes, Sub-themes, and codes of key informant interviews

Following a thorough analysis of the qualitative data from key informant interviews, six main themes, along with their sub-themes and codes, were identified (Table 5).

Healthcare providers' perspective of barriers to CAC

Limited infrastructure and medical supplies

There was a range of expressions on the problem of infrastructure and medical supply. Most of the Participants explicitly stated that there was a

Table 3: Number of health facilities that met at least 75% of the service availability and readiness components in Harari Region and Dire Dawa Administration City, Eastern Ethiopia, 2024

S/N	Service Availability and Readiness Component	Hospitals (n=4)	Health centers (n=12)	Total
1	Service availability by six basic and four comprehensive SAC signal functions	4	8	12
2	Service readiness by staff training and CAC Guideline	4	6	10
3	Service readiness by the availability of equipment	4	11	15
4	Service readiness by diagnostic capacity	4	9	13
5	Service readiness by the availability of materials for MVA	4	12	16
6	Service readiness by the availability of essential medicines	4	7	11
7	**Overall Specific service readiness**	4	9	13

Table 4: Socio-demographic characteristics of the study participants in Harari region and Dire Dawa city administration, eastern Ethiopia, 2024

Variables	Category	Frequency
Age	Mean age	32
	Age range	24-40
Religion	Orthodox	8
	Muslim	5
	Protestant	4
Marital status	Single	7
	Married	10
Sex	Male	8
	Female	9
Year of experience	≤5	4
	6-10	10
	≥10	3
Took abortion training	Yes	15
	No	2
Educational status	Degree	13
	Masters	4
Professionals	Midwife	14
	Nurse	2
	Medical doctor	1

problem with a separate and secure room for maintaining the patient's confidentiality while providing abortion services. Almost all participants expressed a shortage of medical supplies, specifically the medication called Misoprostol, which is a highly recommended medication for the termination of the first and second trimesters of pregnancy.

To speak frankly, the shortage of room is our main challenge. When a client comes to seek safe abortion care, we always worry about a place where they can speak freely about their needs. Currently, we are using either a Family planning room or a delivery room for counseling purposes and the provision of abortion care. Many times, we face challenges. For instance, if there are laboring mothers and Family planning users, we are forced to give them an appointment for the next day. ***(28-year-old female informant).***

*Although we don't have problems with water supply and power, it is obvious that we face a shortage of medical supplies. Concerning safe abortion care, our problem is the lack of medication, specifically misoprostol and MVA kits. Previously, different partners were used to supply and support us to make safe abortion care accessible to all women. Nevertheless, nowadays those partners have stopped their contribution; I don't know what happened to them. So most of the time, we are running out of misoprostol. When we told them to buy from outside, as you know, its price is expensive. If two clients come at a time, it is difficult for us to provide the service, because one client has to wait until the used instruments are sterilized****. (29-year-old male participant).***

Attitude of health care providers

The majority of the participants explicitly highlighted that many health professionals (co-workers) frighten women who seek abortion and do not talk to them with discipline. Even though they do not consider them as other clients who come for health care and they make them feel embarrassed and demoralized. Although the majority of informants agreed with the goal of abortion care, they clearly stated that the service should be given under restricted circumstances. Some participants justify abortion with specific circumstances: when the pregnancy endangers maternal life, fetal anomalies, or occurs following rape. They stated that

Table 5: Shows the themes, subthemes, categories, and codes that were developed after vigorous analysis of the qualitative data

Main Themes	Themes	Category	Code
Barriers to Safe abortion care provision	**Infra-structure and Supply-side barriers**	Supply-side shortage	Shortage of misoprostol Shortage of medical supplies and MVA kits
		Infrastructure-related challenges	Shortage of a separate room Shared delivery and family planning room to deliver the service Electric power problem
	Attitude of health care providers	Negative attitude of HP towards SAC	Some HPs have no willingness to provide the service. Some professionals have limited awareness. Negative attitude regarding the service by some professionals
		Consideration of the SAC service as an extra activity	Considering the service as an Extra activity Some staff are not supportive.
	Stigma	Discrimination by co-workers	Pressure from peers and some individuals Even the Department discriminates against us.
		Discrimination by a close relative or Family	Family isolates us and pushes us to stop the job. Faced Isolation and defamation
	Lack of training	Limited trained professionals	It has been a long time since I took the training. There is a shortage of trained professionals. No timely refreshment training
		The training is not Inclusive.	Only one person in the facility gets the opportunity.
	Religious and cultural barriers to abortion care	Religious influence	My Religion influences me to deliver the service. All religions discourage the service.
		Socio-cultural influence	The community considers the service a sinful activity and isolates those providers.
	Abortion law ambiguity	Seeks the law amendments	The law does not protect HP. Law requires revision Law is not inclusive.
		Inadequate understanding of the law	The law does not allow the service on request. The law allows the service on request indirectly.

they became comfortable providing the service if the reasons justified abortion. Otherwise, they are not in favor of abortion services.

The way the health professionals approached abortion service-seeking clients lacked discipline, and there was a problem. When I was not available in the ward, my colleagues treated those clients who came for abortion care abnormally. Even without listening to her problem, simply by looking at their card, they use offensive words like terminating the

pregnancy is a sin. Why do you look for this service? Most of the time medical charts of clients who seek abortion were empty. So simply by guessing, they talk unnecessary statements. Even though they do not care for her psychology. They make her feel demoralized and embarrassed ***(40-year-old male informant).***

Most of the time, there is an objection to providing safe abortion care by many healthcare professionals. I only prefer to treat incomplete abortion. Even though I took the abortion training, I am not willing to provide safe abortion care. But, if pregnancy occurs following rape or fetal congenital anomalies are confirmed, I may provide the service. However, I do not suggest abortion care should be given to all women based on their request. It should be restricted. Otherwise, we are advocating termination of pregnancy, which is against the will of God and Humanity. ***(27-year-old male respondent).***

However, a minority of informants explained that the goal of abortion care is to reduce maternal mortality related to unsafe abortion and its complications and thus to save women's lives. Indeed, after this service started to be provided with amendments to abortion laws, maternal mortality due to unsafe abortion was significantly reduced. They stressed that they were happy and felt proud to provide this service.

To be honest, I am strong in my religious faith. God indeed gives us a child. But the life of that girl matters. Because if we refuse to provide the service, we are going to lose both the mother and the fetus. But if we provide the service, at least we can save the mother's life. I feel like I helped her. **(38-year-old female participant).**

Stigma experienced by abortion care providers

The general result was that there was a wide range of expressions regarding being isolated by co-workers and some individuals in terms of their religion and socio-cultural background. Some informants highlighted that even though there was no direct isolation, they noted that there was indirect talk (behind talk), giving nicknames and using some words to push us to leave the provision of the service. However, a few participants asserted that they faced isolation and discrimination even by their family members and co-workers.

Although there was no updated training and strong support from the administrative body, at least in terms of recognition, I have been delivering the service. However, the surrounding society was deeply against this service. I understood that such beliefs emanated from their religious education and cultural perspective. Nevertheless, I have been targeted and got nicknames like baby murderer and killer. So now I am considering stopping providing the service. Because it was difficult to continue working while society had strong beliefs against what you were doing ***(26-year-old male participant).***

Although all religions discourage the provision of abortion care, I feel great satisfaction in reducing maternal mortality due to complications of unsafe abortion. But, while I was providing this service, I faced strong challenges and stigmatization from my family. They constantly urged me to stop or resign from the job, or switch to another. Even though there is discouragement talk by some health professionals regarding abortion care. So I can't say that all these things have no impact on my future career ***(35-year-old male participant).***

Shortage of training

The majority of interviewees noted that training has a strong power to change the attitude of professionals and make service accessible. Nevertheless, there was a deep shortage of training and updates for the service providers. Many states state that there was only one trained professional at each health facility, which creates challenges in providing continuous service for those in need. For instance, when the trained professionals changed place, took annual leave, or maternal leave, the service was not provided.

I *think training has completely changed my attitude towards safe abortion. When I was studying for my BSc degree, I objected to abortion services. After my graduation, I was assigned to work as a midwife alone in a remote area. Then I got a chance to attend an abortion training. During that training, I heard many stories and was touched by one story. The story was: one day, the woman went to a health*

center seeking an abortion service. However, the health professional working there declined to offer the service. Then a woman went back to her local town and attempted a traditional method to terminate the pregnancy. Following this procedure, she developed a septic abortion and came back to the former health facility for treatment. They attempted what they could do, but unfortunately, the life of this woman had passed. Within no time, I started to ask myself: who was responsible for this woman's death? I answered for myself: those health professionals who refused to provide her the service she wanted were responsible. Bear in mind that once they decide to terminate the pregnancy, they will go to a traditional place if we refuse. Later, they will come up with many complications. I completely accepted the goal of the service and decided to provide the service on that day. Since that time, even though there was no very important refreshment training, I have been providing the service ***(a 30-year-old female participant).***

Religious and cultural barriers to abortion care

Most informants believed that Ethiopian culture and all religions considered abortion to be condemnable as it was against God's will. Children are highly respected and valued in Ethiopian cultures; they are considered God's gift. Many informants stated that they consider abortion a sinful act, and not worth speaking in public. Those who provide the service might be considered murderers and killers of innocent souls. Some of the respondents cited that they were worried about the day of God's Judgment. But a few participants noted they didn't link the service to their religion. Even they stated that God said, "Help those who need your assistance. Another said no one knows which soul will be taken to heaven or hell. Thus, I felt satisfaction and pride in saving mothers' lives by providing this service.

Even though I took training, I will object to doing it. I will never do it. Look what is the difference between a five-month-old child and five months of an unborn fetus. Their difference is only their age. So, as we speak for the rights of children, we have to speak and work for the right of fetuses to survive ***(27-year-old male participant).***

Abortion law ambiguity

The overall finding is that there were different views on Abortion law interpretation. The majority of informants clearly stated that the abortion law is not inclusive and allows the procedure based on restricted, predetermined criteria. They underlined that the majority of clients were seeking the Abortion service because of economic issues, Contraceptive failure, and short birth intervals. These reasons were not pointed out in the abortion law and were not considered in the predefined criteria as well. Although participants pointed out that the 2005 Ethiopian abortion law amendments resulted in a remarkably reduced prevalence of unsafe abortion and its related complications, they suggested the law should be inclusive and consider the widening of the existing pre-determined five criteria. A few participants also added that the law doesn't give protection for health care providers and the clients themselves from husbands' abuse, especially in cases when abortion services are being provided to married women. Some informants explained that the existing law is open for interpretation. So it creates a difference in interpretation among professionals and to apply it accordingly.

We come across problems quite often. Nowadays, many women seek abortion care citing economic problems, having many children, etc. These reasons were not included under the existing criteria. So I found difficulties in clearly interpreting the Ethiopian abortion law. The existing criteria under which abortion was allowed were five: ***(Rape or incest, continuation of pregnancy endangers the life of a mother, a child has a serious deformity, physically or mentally unfit to bring up the child, and grave or imminent danger which can be averted by termination of pregnancy).***

But at the same time, it supports women to access abortion care on request. Sometimes I provide the service, but I refuse to deliver the service when they repeatedly cite out of the existing criteria. However, the community was aware of the laws, so once I declined, they would go home and come back to me, pointing out one reason from the existing criteria. They knew that if they cited one reason from the

criteria, they would get the service. Because the law states no further information is required. Only the mother's statement is enough. So that I can provide the service. But we, professionals, even interpreted it in different ways. The law is not clearly stated. ***(32-year-old male professional).***

However, a few Participants described the law as too open for interpretation and could be considered fully liberal. The law allows women to get access to abortion care based on request. It supports no further inquiry to verify the reason for termination.

I can say that the existing criteria indirectly permit the provision of abortion to all women. Even though the service is not directly permitted, it is indirectly permitted. If a woman lies deliberately to get the service because the law supports her, she would be given the service. For example, if a woman claims that she is under 18, though it is obvious that she is above 18, I am obliged to provide her the service even if I know she is lying. The law states that the woman's word is enough to give the service, and no further investigation is needed to confirm what she said. ***(30-year-old female participant)***.

Discussion

This study assessed the level of health facility readiness, service availability, and explored the challenges faced by abortion service providers in delivering abortion care in the Harari Region and the Dire Dawa Administration city. Despite notable progress in accessing safe abortion care since the 2005 abortion law reforms, only 53% of induced abortions occur within health facilities in Ethiopia. In this study, we found that approximately 81% of visited public health facilities met the WHO's minimum criteria for providing the basic and comprehensive signal functions of CAC services. This result was higher than the study's finding from the central region of Oromia[12], which reports only 56% of health facilities met the set criteria to provide basic SAC signal function. This discrepancy may be attributed to differences in the study setting; the current study was conducted in a large city, unlike previous studies, which could result in variations in hospital infrastructure and the availability of qualified professionals.

This study identified a low level of health facility readiness across three domains: the availability of essential medicines, trained personnel, and diagnostic capacity. For example, in the diagnostic capacity domain, hemoglobin and blood typing tests were not present in three health centers. These tests are crucial not only for delivering CAC but also as vital components of antenatal care (ANC). The primary challenges to facility readiness and service availability were shortages of misoprostol, injectable antibiotics, epinephrine, national guidance on CAC, staff trained on CAC, and beds with stirrups. These shortages were more evident in health centers than in Hospitals across all domains. These findings are consistent with studies conducted in central Oromia, Ethiopia[12], as well as in Tanzania [15] and the Democratic Republic of Congo [16], which indicated that essential medicines and diagnostic capacity were the domains most frequently experiencing shortages. This highlights a persistent issue across different regions in ensuring adequate healthcare resources. To address this limitation within the health system, it is essential to develop a new strategic plan that ensures a well-functioning supply chain.

In addition to service availability and facility readiness, the challenges faced by service providers are vital indicators of the quality of safe abortion care. Therefore, we explored the service providers' challenges to supplement the quantitative findings. The qualitative study identified six key themes: limited infrastructure and medical supplies, health professionals' bias and stigmatization of service-seeking clients, stigmatization of abortion care providers, shortage of training, cultural and religious barriers to abortion care, and Ambiguities in abortion law.

This study found that many informants highlighted that one of the challenges they face is the lack of adequate infrastructure and medical supplies. Some participants felt that the shortage of resources for abortion services was a result of certain partners discontinuing their support, which they had previously provided. Consistent with the present study, the studies conducted in Ethiopia[17,18] and cross-sectional analysis across Burkina Faso, Kenya, and Nigeria[9]) reported that shortage of equipment in a health facility is one of the strongest factors that can impede the quality of abortion care. A study from China also emphasized the necessity of a continuous supply of medication and other resources

for quality abortion service, as a lack of these increases risks to women's health[8].

According to this study, providers' negative attitudes and stigmatization of service seekers were the main challenges to delivering timely, safe, and effective abortion care. Despite being aware of the issues and expressing their concerns, they expressed a reluctance to fully engage in providing safe abortion services. However, some of the participants were willing to provide such services if there was a justified reason, such as the detection of fetal abnormalities or when continuing the pregnancy posed a threat to the mother's life. The former studies also emphasized that the attitude of health professionals towards abortion care and clients seeking the service greatly impacts the provision of quality abortion care and accessibility of the service[9]. This negative attitude seemed to stem from various factors, including personal reservations, professional stigma, and potential societal or cultural beliefs associated with abortion care [18].

Many informants expressed that the stigma associated with providing abortion services, whether from co-workers or the broader community, significantly impacts their willingness to continue offering these services. This negative perception makes them consider discontinuing their provision of the service or gradually diminishing their willingness to continue offering it. Similar findings were observed from studies conducted in Ethiopia[17] and South Africa[20]. Similarly, a recent study from the USA stressed that providers face stigmatization from individuals, communities, and medical institutions[21]. In numerous African cultures, abortion is regarded as "an act of sin," and the perception persists even with legalization[20]. For many, the stigma surrounding the procedure remains deeply rooted, leading individuals to distance themselves from any association with it, regardless of its legal status. This cultural perspective contributes to the reluctance of both healthcare providers and communities to openly engage with or support abortion services.

This study found that participants viewed training as the most effective means of changing the attitudes of many professionals. However, there is a significant shortage of trained personnel across nearly all health facilities, with only one trained professional available per facility. This situation could hinder their ability to provide services consistently, especially when trained personnel are on annual leave, turnover, sick leave, or unavailable for other reasons. Similar results were observed in studies conducted in South Africa[20], Ghana[19], and Ethiopia[17]. So, all responsible bodies should consider the effect of training and education on encouraging positive provider attitudes toward reproductive and sexual health, and strive to work addressing more health professionals.

In this study, participants demonstrated a notably judgmental attitude consistent with studies conducted in South Africa[20], Ghana[19], and Ethiopia[17]. Participants expressed their perspectives, adhering to the cultural and religious values of their communities. In this study, some of the informants demonstrated a desire not to continue to provide safe abortion care in the future. Cultural and religious barriers to abortion care were highlighted by nearly all participants and remain a frequent topic of discussion among healthcare professionals in both health facilities and academic institutions. These beliefs arise when healthcare providers are unable to separate their personal convictions and moral values from their professional responsibilities and conduct [20].

Many participants indicated that the ambiguity regarding the interpretation of abortion laws represents another significant challenge for healthcare professionals in delivering the services. The findings report that the perceived ambiguity of Ethiopia's abortion laws increases the reluctance of providers who might be willing to offer services. This reluctance is driven by the law's openness to individual interpretation, causing inconsistencies among professionals regarding the interpretation of existing criteria. Studies from Ghana and Ethiopia similarly affirm these findings, noting that unclear abortion laws can lead to reluctance among professionals to provide the service[19,22]. Most participants believed that the current law is not inclusive. They noted that many women today seek abortion services due to economic challenges, short intervals between pregnancies, and contraceptive failures. These factors, they noted, are not adequately addressed under the present law, prompting a call for revisions to include these considerations.

Strengths and limitations

The strength of the study is that it used both quantitative and qualitative approaches to deeply examine the barriers to providing comprehensive abortion care. To the best of our knowledge, this is the first study to examine the facility readiness and service providers' challenges to providing abortion care in the study area. A potential limitation of the study is the exclusion of private health facilities. Since abortion services are now commonly offered in private clinics, the perspectives of professionals working in these settings were not included.

Conclusion

In general, while all hospitals met the minimum criteria for service availability and readiness for abortion care, a significant number of health centers fell short of these standards. The majority of health centers faced challenges in the shortage of essential medication and trained staff. In addition to institutional-related barriers, the most significant challenges abortion professionals face are: limited infrastructure and medical supplies, health professionals' bias and stigmatization of clients seeking abortion care, stigmatization of service providers, lack of training, Cultural and religious barriers to abortion care, and ambiguities in interpreting abortion law. As long as these barriers and stigma persist, many abortions are likely to be unsafe. Thus, efforts to strengthen the capacity of health facilities and community education, timely training of professionals, and revising abortion law based on women's specific needs will improve the provision of safe abortion care services.

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Author contributions

T.B., K.SH. E.Y. and MW developed the study's conception and design. M.L., A.N., E.Y., T.B., K.SH, and MW were engaged in the full development of the proposal. E.Y., T.B., M.L., and A.N. were involved in analyzing and interpreting the data. All authors made significant contributions to the manuscript. Each author was involved in either drafting the initial version or providing insightful revisions to the content. Furthermore, all authors have approved the final version and agreed on the chosen submission journal.

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Conflict of interest

All authors have declared no conflict of interest.

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