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Healthcare providers perspectives on use of family planning guidelines in family planning services in Amhara Region, Ethiopia: A qualitative study

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Abstract

Objective: To explore health providers' views on barriers to and facilitators of family planning (FP) guidelines in FP services in Amhara Region, Ethiopia.

Design: Qualitative study

Setting: Nine health facilities including two hospitals, five health centres, and two health posts in, Amhara region, Northwest Ethiopia.

Participants: Twenty-one healthcare providers working in the provision of family planning services in Amhara region.

Primary and secondary outcome measures:

Semi-structured interviews were conducted to understand health providers' views on barriers to and facilitators of FP guidelines use in FP services.

Results: While the providers' views points to a few facilitators that promote the use FP guidelines, more barriers were identified. The barriers for guidelines use included lack of knowledge about guidelines existence and purpose of the guidelines, providers' personal religious beliefs, relying on prior knowledge and tradition rather than protocols and guidelines, lack of or insufficient access, and inadequate training on use of guidelines. Facilitators for guidelines' use were related to access to guidelines, convenience and ease to implement, incentives in terms of recognition for providers to use the guidelines.

Conclusions: While development of these guidelines is a major important initiative by the Ethiopian government, continued use of this resource by all health care providers requires planning to promote facilitating factors and address barriers related to use of FP guidelines. Training that includes a discussion about providers' beliefs and traditional practices as well as other factors that reduce the use of guidelines, provision of sufficient number of copies, and translation in local language would be useful.

Strengths and limitations of this study

- Strength: It was the first study to explore the barriers and facilitators of family planning guidelines in family planning services in Ethiopia.
- Limitation: the study was conducted with participants from only urban health facilitates in one geographic region of Ethiopia.
- Limitation: the use of a single transcriber and translator but the lead investigator was careful not to impose his own perspectives about barriers/ facilitators of FP guidelines use.

Introduction

Similar to other low income countries in Africa, Ethiopia has a high maternal mortality rate, with 412 deaths per 100,000 live births.[1] This compares to an average of 196 per 100,000 live births at a global level.[2] Ensuring that all women can easily access and use appropriate and effective family planning (FP) services is widely regarded as critical in reducing maternal mortality.[3 4] However, the rate of FP service utilisation remains low in Ethiopia with only 35% of married women using FP services.[1]

Ensuring quality of care is critical in improving and maintaining high levels of FP services utilisation.[5-11] Developing evidence-based clinical practice guidelines and implementing them throughout the health system, is key to building quality of care.[12-14] Clinical practice guidelines are "statements that include recommendations intended to optimize patient care that are informed by a systematic review of evidence and an assessment of the benefits and harms of alternative care options".[15p4] Studies conducted in Ethiopia and Kenya have showed that the availability of FP guidelines was associated with quality of care in FP services.[16 17] For guidelines to be effectively implemented and support quality care, it should be based on the findings of systematic reviews that include quality evidence; developed by a knowledgeable, multidisciplinary panel of experts and representatives from key affected groups; and consider important patient subgroups and patient preferences.[15 18]

To support the improvement of quality of care in FP services, the World Health Organization (WHO) has developed guidelines, including the medical eligibility criteria (MEC) for contraceptive use.[19 20] Informed by the MEC, several countries, including Ethiopia, have developed FP guidelines. In Ethiopia, FP guidelines were first developed in1996, and last updated in 2011.[21 22] A summary of the 2011 guidelines is provided in Table 1. The guidelines are intended to be used by policy makers and health professionals providing family planning services at all levels of the health system in Ethiopia.

A recent study on the factors associated with quality of care in FP services in Ethiopia reports that less than half of the facilities (46%) had FP guidelines/protocols, suggesting inadequate dissemination and uptake of FP guidelines.[16] No study has examined factors influencing utilisation of FP guidelines in FP services in Ethiopia. Understanding the healthcare provider experiences of using guidelines in FP services can help inform initiatives to improve guideline implementation and thus quality of care provision in Ethiopia. The aim of this study was to explore health providers' views on the use of FP guidelines in FP services in Amhara Region, Ethiopia, focusing on barriers and facilitators.

Methods

Study design and setting

This study used in-depth interviews guided by a semi-structured interview guide for data collection. Data were collected between April and June 2017. Twenty one participants were recruited from nine health facilities including two hospitals, five health centres, and two health posts in Gondar and Bahir Dar City administrations, Amhara region, Northwest Ethiopia. The Amhara region is one of 11 administration areas in Ethiopia, with a population of approximately 21 million, 23% of Ethiopia's total population.[23] The region has 19 hospitals, 796 health centres, and 3267 health posts.[24] FP services are provided in all the health facilities in this region. In hospitals, FP services are provided in gynaecology departments by midwives, nurses, or doctors. In health centres, FP services are provided through maternal and child health (MCH) departments by nurses, midwives, or health officers. Health Extension Workers provide FP services in health posts.

Participants

Before contacting the study participants, we selected health facilities purposively, to include three types of health facilities - hospitals, health centres, and health posts. In the selected health facilities, potential study participants were approached in staff meetings, where they were provided information about the study and requested to express their willingness to be part of the study. Those staff who expressed willingness to be part of the study were contacted by telephone to further discuss the study including the study objectives, potential risks to participants, other ethical issues, and to arrange a convenient time and place for the interview. To be part of the study, participants had to be healthcare providers who had worked a minimum of six months providing FP services. A total of 21 providers (18 female, 3 males) were interviewed. See Table 2 for further details on participant characteristics).

Data collection

Data were collected through face-to-face in-depth interviews in the local language (Amharic) by the lead author (GAT). All except one of the interviews were audio-recorded. For the one interview in which the participant declined to give consent for audio-recording, notes were taken. The interview guide included questions inquiring about barriers and facilitators of guidelines utilisation in FP services as well as questions on participant characteristics. The interview guide is available from the lead author.

Data analysis

The audio-recorded interviews and notes taken were translated and transcribed into English by the lead author and entered into NVivo 11™ for analysis.[25] Thematic analysis according to the approach described by Braun and Clarke [26] was employed. The epistemological framework for this analysis was essentialist/realist, aiming to understand and report the experiences, meaning, and

reality of study participants regarding barriers for and facilitators of using FP guidelines in the provisions of FP services.[26] Data analysis was led by GAT who first read and re-read the transcripts to familiarise himself with the data, and then systematically coded the data related to barriers and facilitators. The coding was conducted inductively; with codes informed by the data rather than pre-existing frameworks. The codes were developed through an iterative process involving the co-authors, who having read a sample of three transcripts, discussed the emerging codes. Disagreements and discrepancies around codes, themes, and sub-themes were resolved by consecutive discussions and reference to the original transcript document. Finally, the codes were grouped based on similarities into themes and sub-themes.

Ethical considerations

Ethical approvals were obtained from the Human Research Ethics Committee (HREC) at the University of Adelaide (Protocol # H-2017-023) and the Institutional Review Board (IRB) at the University of Gondar, Ethiopia (Protocol # O/V/P/RCS/05/562/2017).

Results

Overall, five main barriers to and facilitators of using FP guidelines in FP services were identified. These barriers and facilitators are summarised as themes and sub-themes in Table 3.

Theme 1: Knowledge and access to the guidelines

Providers' knowledge of and access to FP guidelines were identified as a key theme impacting the use of FP guidelines in providing FP services. Lack of awareness about the FP guidelines was perceived as a barrier preventing guideline use. In this regard, a number of the providers reported that they were not aware of the existence of the national guidelines for the provisions of FP services; as one provider said "*I have not heard about it [national family planning guideline]…" [In-depth Interviewee (IDI)$_{14}$]*.

Several other providers indicated that they were aware of the guidelines, but did not understand their purpose adequately. They said that they perceived the guidelines as 'training material/manual', only provided during training, rather than health standards to be used at their health facility. This view of the guidelines was demonstrated when a participant described the guidelines in their facility as 'compilation of printed training materials' provided in FP trainings. Also a participant said:

> *…it is because of the guidelines… it is large…we got it from Ipas NGO… it was a collection [compilation] of training materials… laminated together in a book form [ID1$_{18}$]*.

Other providers who indicated that they were aware of the guidelines, referred to inadequate knowledge about how to use the guideline: "*Since we did not understand on how to use it… we have not been using it [guideline] for so long…" [IDI$_2$]*.

A lack of access to the guidelines was described as not having guidelines available in the facility, insufficient copies of guidelines or guidelines not provided in convenient location in the facility.

> *I think, this guideline has to be accessible to various rooms. We have only a copy. [IDI$_{19}$].*

> *We do not have family planning guidelines. We just work by looking into what other providers do and by asking them if there are concerns that we are not sure. That is how we do. [IDI$_{11}$].*

> *We wish to use it, but we do not have it… that is the reason we are not using. [IDI$_{1}$].*

In some instances, where the facility's provided copies of FP guidelines, participants explained that it was often taken away or lost. In this regard, a midwife expressed his concern that students or someone else removes the guidelines from the facility.

> *The hospital may prepare it or got it from somewhere else [other organizations]…but someone may put it at some place for a provider to access it easily. …and then a provider has accessed it for use but failed to put it back… and lost from the facility… that is my assumption. He [provider] just put [it] somewhere or may take it to his home and finally forget it… forgot to bring back. It may also mixed up with other documents and then it became a difficult job to find it for use. [IDI$_{15}$].*

Another participant described that although providers received copies of guidelines during training sessions, they kept the guidelines at their homes, rather than using them in the facility.

> *I had been working in health centre… far from this town…small town. By that time, we [I and colleagues] had been provided the guideline at the training but we dropped it in our homes [instead of bringing it for use in the facility], we did not bring it to the facility. [IDI$_{12}$].*

Lack of easy access to the copies of the guidelines for immediate referral during services provision was mentioned as a barrier by some participants – "*One problem is that we are not putting the guidelines in our nearby areas" [IDI$_{12}$].*

Participants expressed that because of the large size of the guideline, they were not only unable to locate specific information in the text and also found it difficult to carry to outreach areas.

> *…it is somehow difficult to get the exact page where the information we are looking for is located [IDI$_{2}$].*

> *It is also difficult to bring the guideline to use in the villages along other stuff. It is heavy for us… we are also carrying our own stuff in the bag. Most of the time, we are forced not to take it with us [IDI$_{13}$].*

Scope of the guidelines, as it included a large number of health issues, making it difficult to comprehend was mentioned by one of the participants.

> *We have a guideline that included everything in it. It also deals about malaria… HIV… sanitation, nutrition besides family planning for families in the community… It was not possible to easily get the information about family planning services in it [guidelines] [IDI$_{13}$].*

Another barrier to the use of the FP guidelines was that the guidelines was considered often out of date and did not cover the latest contraceptive methods or provide guidance on dealing with community misconceptions about contraception. A nurse from health centre expressed:

> *Plus, it [the current guideline] did not include information about the newly developed and available methods… there is a new implant method which is called "Implanon NXT". This method is now under distribution for health facilities. This method has its own insertion procedure, but you could not get it in the current version of the guidelines [IDI$_{17}$].*

She also added:

> *In the guideline… I found there is lacking about the common misconceptions [about the family planning methods] in the community… if you know them... you will be ready to address during the counselling session… sometimes, you will face with emergency questions in such a way that… "does it lead to this or that?"… if these information are available in the guidelines, a provider will be aware of them and getting ready to handle [answer] them [IDI$_{17}$].*

The guidelines were only provided in English and this was seen by some participants as a barrier to their use, particularly for those healthcare providers who do not understand English well.

> *There might be some healthcare providers that could not easily understand English. For them, it is better to have Amharic version or guidelines in both languages [Amharic and English] [IDI$_{4}$].*

In terms of the facilitators related to the use of guidelines, providers' reported that convenient access to guidelines, ease to use them, format of the guidelines were perceived by the participants as important facilitators for their use. For example, a participant expressed that when FP guidelines were conveniently available in the facilities for providers it was perceived as a facilitator for their use.

> *The guideline is always available in our room, it is just located on the table, anyone who want to refer it can found easily [IDI$_{8}$].*

Moreover, a nurse from health centre felt that passing guidelines to the next colleague when a provider is changing shifts or travelling to other areas was helpful in improving use of guidelines..

> *I also pass the guidelines for the next person if I am going to travel somewhere. That is what I think. I believe, following the guidelines would help a provider to provide a proper counselling…which is really a key issue for a client and for providers to remind him to use the guideline. That is what I believe [IDI$_{21}$].*

Ensuring ease of use and its convenience to carry were also demonstrated as a facilitator for the use of the guidelines. From a provider's perspectives, several participants described that they inclined to use the WHO eligibility criteria than the FP guidelines as the former was easier to get the intended information and being smaller in size made it lighter to carry on when they travelled to villages for outreach services.

> *For example, the WHO guideline is very simple and easy. Just you need to put on the table and then look at the notes inside the circle while national guideline is a book and it needs [us] to search for a page. So making it easier to use is good for providers [IDI$_3$].*

In line with this, some participants suggested that for guidelines to be easier to use by healthcare providers, different colours and pictures need to be used within the guidelines.

> *… it would also be good if they use different colours…green, red, pink to denote which methods should not be taken for some diseases. If you see red, you do not give…but for green marked one… you can do….you know, making it something like the WHO eligibility criteria [IDI$_{12}$].*

> *I need a guideline having different pictures [figures]… do you know what I mean, for example ….a guideline with a U-shape pictures [to indicate] for five-year family planning [IUCD]. …sometimes you will forget what you have been told in training… it will not stay long after a year or two… it will be forgotten. The guidelines shall also have a clear indications on landmarks [anatomical] for the measurement before inserting the contraceptive methods [IDI$_9$].*

Additionally, the participants indicated providing copies of guidelines in the local language, besides providing an English version, can improve its utilisation.

There might be some healthcare providers that could not easily understand English. For them, it is better to have Amharic version or guidelines in both languages [Amharic and English]… [IDI$_4$]

> *But, I prefer to have an Amharic version …and in that case, I can go and read the Amharic version if the English version is not clear for me [IDI$_{15}$]*

Theme 2: Provider behaviour, values and beliefs

More than half of the participants described that many healthcare providers tend to rely on their prior knowledge and practices learnt throughout their career rather than using the available guidelines. The participants felt those providers keep doing things the usual way, as in the past, even after attending FP trainings involving guidelines implementation.

> *…health professionals are providing family planning services just by tradition…without updating him/herself [by reading guidelines]. Especially…the so-called 'chronic staff'…those staff who upgraded themselves gradually from health assistant to junior nurse and then to [diploma]nurse…and then to bachelor degree nurse…they do not want to be guided by guidelines…not at all…they just follow what they have been doing for 10…20 or more years in the past [IDI$_{21}$].*

Some of the participants who had worked for many years in FP services continue to use their knowledge and experience rather than what is using guidelines.

> *We are working here by our experiences. I have been working here for long time…so I do not use anything for providing family planning services (IDI$_{1}$).*

It was also described by some participants that lack of commitment to use health standards by healthcare providers influenced their use of FP guidelines.

> *Additionally [another reason for not using guidelines]…it is because of carelessness of the healthcare provider… providing family planning services just by tradition…without updating himself. [IDI$_{21}$]*

> *…those providers who got the training are aware of that fact… that they should use the guidelines…but they are not following[using] the laws or legislations [guidelines]… there is ignorance … [IDI$_{12}$].*

Other participants expressed that some providers perceive as having sufficient knowledge and a belief that they can provide services without the need of any guidelines. For example, a provider expressed "We thought…we know everything in the document [guidelines]" [IDI$_{14}$]."

For some participants, the habit of not reading any material provided was a barrier. One of the participants mentioned that "*Most of our people [including providers] do not have a good culture [habit] of reading books… let alone family planning guidelines. [IDI$_{16}$].*

It was also noted that some providers were not comfortable reading the guidelines in front of clients. They would rather rely on their personal experiences.

> *When you have clients sitting in front of you, it is boring to do [refer guidelines] that. That is why I prefer providing the services from my experiences [IDI$_4$]*

It was not all negative. One participant described his personal change in terms of commencing to use FP guidelines.

> *I am using it [guidelines] rather than following the traditional [practice based on prior knowledge]... I tried to abandon [change] the old tradition to work without referring to family planning guidelines… [IDI$_{16}$].*

One participant presented the view that the religious beliefs of some providers was a barrier in the utilisation of the FP guidelines:

> *...quite a number of providers do have a negative attitude for family planning and safe abortion. They consider it as a religiously prohibited thing…they always associate it with religion…and they do not accept it. Overall, I can say, their utilisation of the guideline is limited. [ID1$_{16}$]*

The same participant expressed that in some instances providers' motivation to attend FP related training was the provision of per-diems rather than obtaining knowledge about the FP services and available guidelines to support FP services.

> *Many providers are going to the training…not just for learning new knowledge on it [family planning services and use of guidelines], it is rather to get the per-diems during the training…They do not seem to provide the [family planning] services properly using the guidelines…we are observing that every time [IDI$_{16}$].*

Theme 3: Manager support (or lack of support) and supervision

Another theme arising from the interviews is about the role of supervisors, including district managers and staff from non-governmental organisation (NGO). One midwife said that supervisor's lack of emphasis on the guidelines when monitoring service delivery was an issue. More particularly the midwife participant from a health centre expressed that: "[when health managers from the district and regional health bureau visited their facility] *no one has checked whether we have been using it [guidelines] or not" [IDI$_{19}$].*

Another provider also reported that some healthcare managers were not concerned about availability or use of the guidelines.

> *When they come to us they are asking us about the drugs, and contraceptive methods, vaccinations… They are not asking about the guidelines or if we use them or not. They are always asking on the numbers on the report... for example they ask us, "why only few people are getting family planning services in a certain month" [IDI$_{14}$].*

However, some of the participants informed that support by district managers and NGO staff was available and acted as a facilitator to use FP guidelines.

> *We do have NGO partners who are coming regularly to check our services provisions, availability of materials and contraceptive methods. They also checked the presence of family planning guidelines [IDI$_{17}$].*

Creating a culture within the facility where the guidelines were seen as core to their service provision was suggested by a number of participants as a facilitator. *If one needs providers to use guidelines, encouragement is necessary… [IDI$_6$].*

Theme 4: Resource availability: time and workforce

Resource related issues such as lack of time, shortage of trained providers, and high workload were expressed as barriers to using FP guidelines. Several of the participants reported that high client load interferes with using the guidelines. The participants referred to long queues of clients' waiting outside of the clinics to receive FP services; that made referring to the guidelines during consultations difficult. In addition, the participants reported that limited time available for each client meant that some provider prioritised using the 'consultation time' to counsel client based on what they already know rather than using the guidelines. In one participant's words: "*We do not have time… in order to read a text [guidelines], really… you should first get sufficient time" [IDI$_{13}$].*

Additionally, the lack of appropriately trained staff added to the pressure on the existing staff and so taking the time to refer to the guidelines was considered a barrier to dealing with patient numbers. For example, participants stated:

> *In that case [in the absence of trained providers], they [untrained providers] may just provide only counselling to them [clients] and appoint for myself or other trained provider to see them when we get back… these providers are not referring to the document [guidelines]. In the facility, we do have only two trained providers, myself and another midwife [IDI8]*

Another area of concern for one participant was the facilities' inability to retain those staff who had been provided with training related to FP services and guidelines:

> *There were many providers who have got the training but they moved to other places from our facility for different reasons…there is a lot of providers' turnover here...that is a big challenge [IDI$_{17}$].*

According to a health extension worker participant, it was difficult to use guidelines during provision of FP services because providers were required to provide a number of other healthcare

services along with FP services, be involved with various meetings, and to work in outreach activities in the local community.

> *We do have meetings all the time, we should give counselling for the clients, we should also need to report to district managers, and health centre… we are not in the office to read available documents, usually in the morning time "we are always out" [IDI$_{13}$].*

Another nurse explained that working on a number of tasks that are not co-located in one room but offered by one provider was also seen as a barrier to guideline use. In her words:

> *…if a midwife is assigned in one room, there is no reason that she does not use the guidelines properly. But, this will not happen here… we are going to antenatal, postnatal care, etc… Sometimes, we are rushing to reach the clients coming for different services. [IDI$_{15}$].*

Theme 5: Training

Providers' lack of or inadequate training on the contents of the FP guidelines was described as a barrier to guidelines use. For example, one participant mentioned that: "*If you are not trained you cannot use the guideline" [IDI$_3$]*. Other providers expressed:

> *I took the training….it was long time ago… I took it in 2005E.C (just before 4 years [IDI$_8$]*

> *Once we have been provided a training, nobody remembers you for refreshment training… [IDI$_2$]*

In contrast, other participants referred to provision of training that targets FP guidelines as a facilitator; for example one participant explained that discussing the contents of the guidelines during FP training provision may help to motivate providers to use the guidelines.

> *They [trainers] have highlighted some concepts in the guidelines using PowerPoint presentation. I guess, this can help providers to motivate for using them while getting back to their facilities [IDI$_{16}$].*

As part of the capacity building activity, the participants described that being a FP trainer has helped them to improve their use of guidelines.

> *…our facility is one of the practical attachment location for family planning trainings. I am also part of the trainers' panel for the long term contraceptive methods. …the guidelines are always in my hand for me to use… I am updating myself every time…maybe... I read the book in weekly or monthly basis. I also ask other friends [colleagues] to use it [IDI$_{16}$].*

Some participants acknowledged peer-learning from colleagues and identified this as a facilitator. For example, a participant described that she and her colleagues did not use the guidelines until she

attended an induction training on how to use the guidelines and share the knowledge to her colleagues.

> *...After I received the orientation [induction] on how to use it, I have also informed [on how to use it] to all my staff and now we are using it in the same language [fashion]. The guideline had been in our facility for three....or... four months without using it [IDI$_2$].*

Discussion

This is the first study conducted to understand providers' perspectives on FP guidelines use in Ethiopia. While the providers' views points to both barriers and facilitators affecting FP guidelines use in FP services, more factors related to barriers were identified and described. Barriers exist, from providers' perspective, mainly in inadequate knowledge about the purpose of the guidelines, relevance of the guidelines for specific and practical needs of the providers, personal factors such as beliefs and traditions, and organisational factors such as inadequate resources including time and staff, lack of supervision and support.

Our findings that provider's lack of knowledge about the existence of FP guidelines and unavailability of a copy of guidelines for healthcare providers supports our previous quantitative study which found more than half of the health facilities in Ethiopia do not have FP guidelines available.[16] Lack of availability of the guidelines in health facilities points to a concern about lack of planning to distribute such resource to health facilities for use by healthcare providers.[27] Inadequate planning to effectively distribute guidelines and protocols is a persistent concern across other countries as well; for example, a 2012 Ugandan study, found that more than 60% of clinical guidelines developed by the government were not available at the service delivery level despite that these resources were available at national offices level.[28]

When guidelines were available in health facilities, other issues impeded their use, including language and format of guidelines. Other studies have also identified these features of guidelines as factors that negatively impact utilisation.[29-31]

The present study also found that a lack of information in the guidelines about common community misconceptions related to FP methods and lack of information about newly-developed contraceptive methods such as *Implanon NXT* impacted on their effective use. In Ethiopia, the current FP guidelines were intended to serve various stakeholders ranging from policy makers at the national level to FP providers at the services delivery point. As a result, instead of providing specific and practical information to assist frontline health care providers for effective counselling and contraceptive provision, the guidelines provide relatively general information about FP services.

For example, the current version of the national FP guidelines[22] does not provide information about how to use the contraceptive methods and indications/contraindications. This finding suggests that at the health facility level, guidelines need to include specific information for the health care providers to use to provide effective family planning services. The guidelines by the Ministry of Public Health and Sanitation of Kenya, for example, addressed this issue and provided current and up to date information on FP methods.[32] These guidelines cover the advantages and disadvantages of FP methods, medical eligibility criteria, management of common side effects, and how to address common community misperceptions about FP methods.

A practice where healthcare providers continue to apply, even after receiving a guideline and training, the procedures they have been applying in the past is a well-known problem in healthcare sector.[33] [34] Similarly, in our study, the participants shared their concern that many providers continue to provide FP services that are not in line with the guidelines but are based on providers conventional practice over the years. This could be because of an organisation culture where staff are not encouraged to read current evidence, literature and protocols to refresh their knowledge.

This study informed about organisational factors including the role of management support for providers to use the guideline and insufficient health workforce. Evidence shows that managerial support is important to improve use of clinical practice guidelines.[35-37] This alerts to the need for a focus on support and supervision visits by health services managers at the regional level and at the facility level. Lack of sufficient health workforce was identified as a main barrier for guidelines use. A previous study conducted in four low-income countries, Uganda, Ethiopia, Tanzania, Myanmar, showed that shortage of health workforce was one of the barriers impeding guidelines implementation in the provision of maternal health services across all these countries.[38] Study participants in our study also expressed that high staff turnover exacerbated the staff shortage problem in health facilities. Our study has also pointed to that time pressure due to client overload and multiple tasks was impeding guidelines use in FP services. Several studies reported that time constraint was a barrier for implementing clinical practice guidelines.[39-41]

Health care providers in our study highlighted the importance of trainings to enhance skills for effective use of guidelines and in turn provide quality of care in FP services. The need for trainings and skill enhancement is noted in many other studies, across a range of health issues and healthcare services provision. For example, multi-country studies, undertaken in low-and middle-income countries such as Uganda, Malawi, Tanzania, Ethiopia conducted to identify the barriers and facilitators for implementing various health services guidelines including maternal health services,

[27 38] and mental health services[42] showed that lack of or insufficient training was a barrier for implementing clinical guidelines.

It is important to note a significant limitation of our study. First, the study was conducted with participants from only urban health facilitates in one geographic region of Ethiopia. Hence, the barriers and facilitators identified may not be representative of those factors affecting the implementation of the national guidelines in Ethiopia as a whole. Second, the use of a single transcriber and translator limited our ability to conduct a quality assurance of transcript translations but the lead investigator was careful not to impose his own perspectives about barriers/ facilitators of FP guidelines use.

However, the findings of this study have the following important implications. While the Ethiopian government took an important initiative in developing these FP guidelines, for effective and ongoing use of these guidelines a number of additional steps are needed, including translating the guidelines to the local language, planning for distribution and availability across the country, trainings that focus on personal beliefs and need for evidence base practice using guidelines, and planning for supportive supervision.

Further studies examining providers' perspectives of guideline use, with participants drawn from different regions in Ethiopia are required to build a comprehensive understanding of barriers and facilitators, and how to support utilisation of FP guidelines throughout the health system. Studies targeting healthcare managers are also recommended to provide additional insights on resources and managerial support related factors.

Conclusion

This qualitative study presents further evidence of lack of rigorous application of standard operating procedures and protocols, and informs about the potential reasons by highlighting the situation with regard to the use of national FP guidelines in one region of Ethiopia. While the providers' views points to a few facilitators that promote the use FP guidelines, more barriers were identified. The barriers for guidelines use included lack of knowledge about guidelines existence and purpose of the guidelines, lack of sufficient copies, difficult access, providers' personal religious beliefs, relying of prior knowledge and tradition rather than protocols and guidelines, and inadequate training on use of guidelines. Facilitators for guidelines' use were related to access to guidelines, convenience and ease to implement; incentives in terms of recognition for providers to use the guidelines.

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Contributors

GAT contributed to the study concept and design; acquisition, analysis and interpretation of data; drafting and critical revision of the manuscript. JSG, COL, MAM contributed to the study concept and design, as well as the critical revision of the manuscript. All the authors have approved the manuscript.

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Competing interest None

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Table 1. Summary of the 2011 national guidelines for family planning services in Ethiopia

Developed by:	A panel of experts from: • Government (Ministry of Health of Health) • Addis Ababa University • Non-governmental organisations working in Ethiopia (DKT, EngenderHealth, FHI, Ipas, WHO, Marie Stopes International, IFHP, UNFPA, Venture Strategy, JSI/Deliver)
Intended users:	• Policy makers • Health managers • FP program coordinators and managers at all levels • All cadres of health care providers and instructors at health training institutions • FP researchers, monitors and evaluators • Donors, other stakeholders and implementers of FP programs in government, non-government and private sectors
Objectives:	• Guide FP programmers and implementers at government, non-government, bilateral and multilateral organisations, private sector as well as charity and civic institutions • Guide to all cadres of health care providers directly or indirectly involved in the provision of FP services including pre-service and in-service training • Set standards for FP programs and services • Standardise various components of FP services at all levels • Expand and improve quality of FP services to be offered • Direct integration of FP services with other reproductive health services, and • Serve as a general directive and management tool.
Main content:	• Goals and objectives of the Family Planning Guideline • FP Services* • FP Service Strategies • Services for Clients with Special Needs • Advocacy communications and social mobilisation • Contraceptive supplies and management • Quality of Care in Family Planning • Health Management Information System

Source: Ministry of Health. National Guidelines for Family Planning Services in Ethiopia. Addis Ababa: Ministry of Health, 2011.

**This section describes the range of FP services provided in the health facilities. The services specified are counselling, provision of contraceptive methods, screening services for sexual transmitted infections, HIV and reproductive organ cancers, prevention and management of fertility treatment*

FP- Family Planning FHI- Family Health International IFHP- Integrated Family Health Program

JSI- John Snow Incorporation UNFPA- United Nations Fund for Population Agency WHO- World Health Organization

Table 2. Characteristics of participants

Characteristics	Number	Percent
Sex		
Female	18	85.7
Male	3	14.3
Age (years)		
25-30	10	47.6
>30	11	52.4
Mean age		30 (SD=4.9)
Range		Min=25, max=49
Profession		
HEW	4	19.0
Midwife	10	47.6
Nurse	7	33.3
Highest qualification		
BSc	8	38.1
Diploma	13	61.9
Facility in which provider provided FP services		
Ayer-marefia Health Post	2	9.5
Azezo Health Centre	3	14.3
Belay Zeleke Health Post	2	9.5
Felege-hiwot Hospital	2	9.5
Gebriel Health centre	2	9.5
Gondar Health centre	1	4.8
Han Health Centre	2	9.5
Maraki Health Centre	2	9.5
University of Gondar Hospital	5	23.8
Types of facility from which participants were recruited		
Health Centre	10	47.6
Hospital	7	33.3
Health Post	4	19.0

Table 3. Summary of provider perceptions of factors (barriers and facilitators) related to implementation of FP guidelines

Theme	**Sub-themes**
Knowledge and access	• Awareness of guideline existence • Understanding of guideline purpose, content and requirements • Dissemination / availability of the guidelines • Size of the guideline • Scope of the guidelines • Language and layout of the guidelines
Provider behaviour and values	• Beliefs of providers (e.g. views about what should be provided based on religion) • Values (e.g. commitment to use of health standards) • Habits (e.g. practice according to traditional ways of doing things and expert knowledge of providers)
Support and supervision from managers	• Supervision • Monitoring of guidelines implementation • Incentives created for guideline implementation
Resource availability: time and workforce	• Availability of trained providers • Time pressure • Required activities
Training	• Frequency of training • Content of training • Peer-learning

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Healthcare providers perspectives on use of family planning guidelines in family planning services in Amhara Region, Ethiopia: A qualitative study

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Abstract

Objective: To explore healthcare providers' views on barriers to and facilitators of use of family planning (FP) guidelines in FP services in Amhara Region, Ethiopia.

Design: Qualitative study

Setting: Nine health facilities including two hospitals, five health centres, and two health posts in, Amhara region, Northwest Ethiopia.

Participants: Twenty-one healthcare providers working in the provision of FP services in Amhara region.

Primary and secondary outcome measures:

Semi-structured interviews were conducted to understand healthcare providers' views on barriers to and facilitators of FP guidelines use in FP services.

Results: While the providers' views points to a few facilitators that promote the use FP guidelines, more barriers were identified. The barriers for guidelines use included lack of knowledge about guidelines existence and purpose of the guidelines, quality of the guidelines, providers' personal religious beliefs, relying on prior knowledge and tradition rather than protocols and guidelines, lack of or insufficient access, and inadequate training on use of guidelines. Facilitators for guidelines' use were related to access to guidelines, convenience and ease to implement, incentives in terms of recognition for providers to use the guidelines.

Conclusions: While development of these guidelines is a major important initiative by the Ethiopian government, continued use of this resource by all healthcare providers requires planning to promote facilitating factors and address barriers related to use of FP guidelines. Training that includes a discussion about providers' beliefs and traditional practices as well as other factors that reduce the use of guidelines, provision of sufficient number of copies, and translation in local language would be useful.

Strengths and limitations of this study

- Strength: It was the first study to explore the barriers and facilitators of use of FP guidelines in FP services in Ethiopia.

- Limitation: the study was conducted with participants from only urban health facilitates in one geographic region of Ethiopia.
- Limitation: the use of a single transcriber and translator but the lead investigator was careful not to impose his own perspectives about barriers/ facilitators of FP guidelines use.

Introduction

Similar to other low income countries in Africa, Ethiopia has a high maternal mortality rate, with 412 deaths per 100,000 live births.[1] This compares to an average of 196 per 100,000 live births at a global level.[2] Ensuring that all women can easily access and use appropriate and effective family planning (FP) services is widely regarded as critical in reducing maternal mortality [3 4]. However, the rate of FP service utilisation remains low in Ethiopia with only 35% of married women using FP services.[1]

Ensuring quality of care is critical in improving and maintaining high levels of FP services utilisation. [5-11] Developing evidence-based clinical practice guidelines and implementing them throughout the health system, is key to building quality of care. [12-14] Clinical practice guidelines are "statements that include recommendations intended to optimize patient care that are informed by a systematic review of evidence and an assessment of the benefits and harms of alternative care options".[15p4] Studies conducted in Ethiopia and Kenya have showed that the availability of FP guidelines was positively associated with quality of care in FP services.[16 17] For example, Stanback et al.[17] showed that when FP guidelines are properly distributed to FP services providing health facilities, they help improve health providers sustained use of guidelines and thereby the quality of care in FP services. For guidelines to be effectively implemented and support quality care, it should be based on the findings of systematic reviews that include quality evidence; developed by a knowledgeable, multidisciplinary panel of experts and representatives from key affected groups; and consider important patient subgroups and patient preferences. [15 18]

To support the improvement of quality of care in FP services, the World Health Organisation (WHO) has developed guidelines, including the medical eligibility criteria (MEC) for contraceptive use. [19 20] Informed by the MEC, several countries, including Ethiopia, have developed FP guidelines. In Ethiopia, FP guidelines were first developed in1996, and last updated in 2011. [21 22] A summary of the 2011 national FP guidelines considered in the present study is provided in Table 1. The guidelines are intended to be used by policy makers and health professionals providing FP services at all levels of the health system in Ethiopia.

A recent study on the factors associated with quality of care in FP services in Ethiopia reports that less than half of the facilities (46%) had FP guidelines/protocols, suggesting inadequate dissemination and uptake of FP guidelines.[16] No study has examined factors influencing utilisation of FP guidelines in FP services in Ethiopia. Understanding the healthcare provider

experiences of using guidelines in FP services can help inform initiatives to improve guideline implementation and thus quality of care provision in Ethiopia. The aim of this study was to explore healthcare providers' views on the use of FP guidelines in FP services in Amhara Region, Ethiopia, focusing on barriers and facilitators.

Methods

Study design and setting

This study used in-depth interviews guided by a semi-structured interview guide for data collection. The study was conducted in two big cities- Bahir Dar city and Gondar city- located in Amhara region, Northwest Ethiopia between April and June 2017. Study participants were recruited from nine health facilities including two hospitals, five health centres, and two health posts. The Amhara region is the second largest of the 11 administration areas in Ethiopia, with a population of approximately 21 million, 23% of Ethiopia's total population. [23] The region has 19 hospitals, 796 health centres, and 3267 health posts. [24] FP services are provided in all the health facilities in this region. In hospitals, FP services are provided in gynecology departments by midwives, nurses, or doctors. In health centres, FP services are provided through maternal and child health (MCH) departments by nurses, midwives, or health officers. Health Extension Workers provide FP services in health posts.

Participants

Before contacting the study participants, we selected health facilities purposively, to include three types of health facilities - hospitals, health centres, and health posts. In the selected health facilities, potential study participants were approached in staff meetings, where they were provided information about the study and requested to express their willingness to be part of the study. Those staff who expressed willingness to be part of the study were contacted by telephone to further discuss the study including the study objectives, potential risks to participants, other ethical issues, and to arrange a convenient time and place for the interview. To be part of the study, participants had to be healthcare providers who had worked a minimum of six months providing FP services. This helped to explore providers' direct/real experiences on factors affecting use of FP guidelines in FP services. While it was initially anticipated to include up to 15 study participants, recruitment of participants were conducted until saturation was achieved in that no new barrier or facilitator were identified.

As a result, a total of 21 providers (18 female, 3 males) were interviewed. See Table 2 for further details on participant characteristics).

Data collection

Data were collected through face-to-face in-depth interviews in the local language (Amharic) by the lead author (GAT). In-depth interviews was used as this approach allows exploring individual experiences/views/perceptions of healthcare providers working in the provision of FP services. Unlike the focus group discussion, the findings in the in-depth interviews are not influenced by the views of other participants.[25] All except one of the interviews were audio-recorded. For the one interview in which the participant declined to give consent for audio-recording, notes were taken. The interview guide included questions inquiring about barriers and facilitators of guidelines utilisation in FP services as well as questions on participant characteristics. The interview guide is available from the lead author.

Data analysis

The audio-recorded interviews and notes taken were translated and transcribed into English by the lead author and entered into NVivo 11™ for analysis. [26] Thematic analysis according to the approach described by Braun and Clarke [27] was employed. The epistemological framework for this analysis was essentialist/realist, aiming to understand and report the experiences, meaning, and reality of study participants regarding barriers for and facilitators of using FP guidelines in the provisions of FP services. [27] Data analysis was led by GAT who first read and re-read the transcripts to familiarise himself with the data, and then systematically coded the data related to barriers and facilitators. GAT is a reproductive health researcher who has been working in family planning research in Ethiopia. His knowledge about the local culture, values and context of the study setting enhanced the research in terms of making probing questions during the interviews and appropriate interpretation of the data and identifying the barriers/facilitators. JSG has knowledge of the context surrounding guidelines utilisation and healthcare delivery in resource-limited African settings which assist with appropriate interpretation of the data collected. COL and MAM are also well-experienced in qualitative research and this helped in data analysis and interpretation of the findings. The coding was conducted inductively; with codes informed by the data rather than pre-existing frameworks. The codes were developed through an iterative process involving the co-authors (JSG, COL, MAM), who having read a sample of three transcripts, discussed

the emerging codes. Disagreements and discrepancies around codes, themes, and sub-themes were resolved by consecutive discussions and reference to the original transcript document. Finally, the codes were grouped based on similarities into themes and sub-themes.

Ethical considerations

Ethical approvals were obtained from the Human Research Ethics Committee (HREC) at the University of Adelaide (Protocol # H-2017-023) and the Institutional Review Board (IRB) at the University of Gondar, Ethiopia (Protocol # O/V/P/RCS/05/562/2017). Those study participants who expressed willingness to participate in the study were provided with written informed consents before the start of the interviews.

Patient and public involvement

Patients or members of the public were not involved in the development, design or conduct of this study.

Results

Overall, six main barriers to and facilitators of using FP guidelines in FP services were identified. These barriers and facilitators are summarised as themes and sub-themes in Table 3.

Theme 1: Knowledge and access to the guidelines

Providers' knowledge of and access to FP guidelines were identified as a key theme impacting the use of FP guidelines in providing FP services. Lack of awareness about the FP guidelines was perceived as a barrier preventing guideline use. In this regard, three participants reported that they were not aware of the existence of the national guidelines for the provisions of FP services; as one provider said "*I have not heard about it [national family planning guideline]…" [In-depth Interviewee (IDI)$_{14}$]*.

Several other providers indicated that they were aware of the guidelines, but did not understand their purpose adequately. They said that they perceived the guidelines as 'training material/manual', only provided during training, rather than health standards to be used at their health facility. This view of the guidelines was demonstrated when a participant described the guidelines in their facility as 'compilation of printed training materials' provided in FP trainings. Also a participant said:

> *...it is because of the guidelines… it is large…we got it from Ipas NGO… it was a collection [compilation] of training materials… laminated together in a book form [ID1$_{18}$]*.

Other providers who indicated that they were aware of the guidelines, referred to inadequate knowledge about how to use the guideline: "*Since we did not understand on how to use it… we have not been using it [guideline] for so long…" [IDI$_2$]*.

A lack of access to the guidelines was described as not having guidelines available in the facility, insufficient copies of guidelines or guidelines not provided in convenient location in the facility.

> *I think, this guideline has to be accessible to various rooms. We have only a copy. [IDI$_{19}$]*.

> *We do not have family planning guidelines. We just work by looking into what other providers do and by asking them if there are concerns that we are not sure. That is how we do. [IDI$_{11}$]*.

> *We wish to use it, but we do not have it… that is the reason we are not using. [IDI$_1$]*.

In some instances, where the facility's provided copies of FP guidelines, participants explained that it was often taken away or lost. In this regard, a midwife expressed his concern that students or someone else removes the guidelines from the facility.

> *The hospital may prepare it or got it from somewhere else [other organizations]…but someone may put it at some place for a provider to access it easily. …and then a provider has accessed it for use but failed to put it back… and lost from the facility… that is my assumption. He [provider] just put [it] somewhere or may take it to his home and finally forget it… forgot to bring back. It may also mixed up with other documents and then it became a difficult job to find it for use. [IDI$_{15}$].*

Another participant described that although providers received copies of guidelines during training sessions, they kept the guidelines at their homes, rather than using them in the facility.

> *I had been working in health centre… far from this town…small town. By that time, we [I and colleagues] had been provided the guideline at the training but we dropped it in our homes [instead of bringing it for use in the facility], we did not bring it to the facility. [IDI$_{12}$].*

Lack of easy access to the copies of the guidelines for immediate referral during services provision was mentioned as a barrier by some participants – "*One problem is that we are not putting the guidelines in our nearby areas" [IDI$_{12}$].*

Participants expressed that because of the large size of the guideline, they were not only unable to locate specific information in the text and also found it difficult to carry to outreach areas.

> *…it is somehow difficult to get the exact page where the information we are looking for is located [IDI$_{2}$].*

> *It is also difficult to bring the guideline to use in the villages along other stuff. It is heavy for us… we are also carrying our own stuff in the bag. Most of the time, we are forced not to take it with us [IDI$_{13}$].*

The guidelines were only provided in English and this was seen by some participants as a barrier to their use, particularly for those healthcare providers who do not understand English well.

> *There might be some healthcare providers that could not easily understand English. For them, it is better to have Amharic version or guidelines in both languages [Amharic and English] [IDI$_{4}$].*

In terms of the facilitators related to the use of guidelines, providers' reported that convenient access to guidelines, ease to use them, format of the guidelines were perceived by the participants as important facilitators for their use. For example, a participant expressed that when FP guidelines were conveniently available in the facilities for providers it was perceived as a facilitator for their use.

> *The guideline is always available in our room, it is just located on the table, anyone who want to refer it can found easily [IDI$_8$].*

Moreover, a nurse from health centre felt that passing guidelines to the next colleague when a provider is changing shifts or travelling to other areas was helpful in improving use of guidelines.

> *I also pass the guidelines for the next person if I am going to travel somewhere. That is what I think. I believe, following the guidelines would help a provider to provide a proper counselling…which is really a key issue for a client and for providers to remind him to use the guideline. That is what I believe [IDI$_{21}$].*

Ensuring ease of use and its convenience to carry were also demonstrated as a facilitator for the use of the guidelines. From a provider's perspectives, several participants described that they inclined to use the WHO eligibility criteria than the FP guidelines as the former was easier to get the intended information and being smaller in size made it lighter to carry on when they travelled to villages for outreach services.

> *For example, the WHO guideline is very simple and easy. Just you need to put on the table and then look at the notes inside the circle while national guideline is a book and it needs [us] to search for a page. So making it easier to use is good for providers [IDI$_3$].*

In line with this, some participants suggested that for guidelines to be easier to use by healthcare providers, different colours and pictures need to be used within the guidelines.

> *… it would also be good if they use different colours…green, red, pink to denote which methods should not be taken for some diseases. If you see red, you do not give…but for green marked one… you can do….you know, making it something like the WHO eligibility criteria [IDI$_{12}$].*

> *I need a guideline having different pictures [figures]… do you know what I mean, for example ….a guideline with a U-shape pictures [to indicate] for five-year family planning*

[IUCD]. …sometimes you will forget what you have been told in training… it will not stay long after a year or two… it will be forgotten. The guidelines shall also have a clear indications on landmarks [anatomical] for the measurement before inserting the contraceptive methods [IDI$_9$].

Additionally, the participants indicated providing copies of guidelines in the local language, besides providing an English version, can improve its utilisation.

But, I prefer to have an Amharic version …and in that case, I can go and read the Amharic version if the English version is not clear for me [IDI$_{15}$]

Theme 2: Quality of the guidelines

Another theme arising from the interviews was related to that available guidelines included a range of information not directly related to FP services such as information about malaria and nutrition. It was also described that the guidelines covers out of date information about FP methods.

Scope of the guidelines, as it included a large number of health issues, making it difficult to comprehend was mentioned by one of the participants.

We have a guideline that included everything in it. It also deals about malaria… HIV… sanitation, nutrition besides family planning for families in the community… It was not possible to easily get the information about family planning services in it [guidelines] [IDI$_{13}$].

Another barrier to the use of the FP guidelines was that the guidelines was considered often out of date and did not cover the latest contraceptive methods or provide guidance on dealing with community misconceptions about contraception. A nurse from health centre expressed:

Plus, it [the current guideline] did not include information about the newly developed and available methods… there is a new implant method which is called "Implanon NXT". This method is now under distribution for health facilities. This method has its own insertion procedure, but you could not get it in the current version of the guidelines [IDI$_{17}$].

She also added:

In the guideline… I found there is lacking about the common misconceptions [about the family planning methods] in the community… if you know them... you will be ready to

address during the counselling session… sometimes, you will face with emergency questions in such a way that… "does it lead to this or that?"… if these information are available in the guidelines, a provider will be aware of them and getting ready to handle [answer] them [IDI$_{17}$].

Theme 3: Provider behaviour, values and beliefs

More than half of the participants described that many healthcare providers tend to rely on their prior knowledge and practices learnt throughout their career rather than using the available guidelines. The participants felt those providers keep doing things the usual way, as in the past, even after attending FP trainings involving guidelines implementation.

…health professionals are providing family planning services just by tradition…without updating him/herself [by reading guidelines]. Especially…the so-called 'chronic staff'…those staff who upgraded themselves gradually from health assistant to junior nurse and then to [diploma]nurse…and then to bachelor degree nurse…they do not want to be guided by guidelines…not at all…they just follow what they have been doing for 10…20 or more years in the past [IDI$_{21}$].

Some of the participants who had worked for many years in FP services continue to rely on their knowledge and experience rather than referring to guidelines.

We are working here by our experiences. I have been working here for long time…so I do not use anything for providing family planning services (IDI$_1$).

It was also described by some participants that lack of commitment to use health standards by healthcare providers influenced their use of FP guidelines.

Additionally [another reason for not using guidelines]…it is because of carelessness of the healthcare provider… providing family planning services just by tradition…without updating himself. [IDI$_{21}$]

…those providers who got the training are aware of that fact… that they should use the guidelines…but they are not following[using] the laws or legislations [guidelines]… there is ignorance … [IDI$_{12}$].

Other participants expressed that some providers perceive as having sufficient knowledge and a belief that they can provide services without the need of any guidelines. For example, a

provider expressed "We thought…we know everything in the document [guidelines]" [IDI_{14}]."

For some participants, the habit of not reading any material provided was a barrier. One of the participants mentioned that "*Most of our people [including providers] do not have a good culture [habit] of reading books… let alone family planning guidelines. [IDI_{16}]*.

It was also noted that some providers were not comfortable reading the guidelines in front of clients. They would rather rely on their personal experiences.

> *When you have clients sitting in front of you, it is boring to do [refer guidelines] that. That is why I prefer providing the services from my experiences [IDI_4]*

It was not all negative. One participant described his personal change in terms of commencing to use FP guidelines.

> *I am using it [guidelines] rather than following the traditional [practice based on prior knowledge]… I tried to abandon [change] the old tradition to work without referring to family planning guidelines… [IDI_{16}].*

One participant presented the view that the religious beliefs of some providers was a barrier in the utilisation of the FP guidelines:

> *…quite a number of providers do have a negative attitude for family planning and safe abortion. They consider it as a religiously prohibited thing…they always associate it with religion…and they do not accept it. Overall, I can say, their utilisation of the guideline is limited. [$ID1_{16}$]*

The same participant expressed that in some instances providers' motivation to attend FP related training was the provision of per-diems rather than obtaining knowledge about the FP services and available guidelines to support FP services.

> *Many providers are going to the training…not just for learning new knowledge on it [family planning services and use of guidelines], it is rather to get the per-diems during the training…They do not seem to provide the [family planning] services properly using the guidelines…we are observing that every time [IDI_{16}].*

Theme 4: Manager support (or lack of support) and supervision

Another theme arising from the interviews is about the role of supervisors, including district managers and staff from non-governmental organisation (NGO). One midwife said that supervisor's lack of emphasis on the guidelines when monitoring service delivery was an issue. More particularly the midwife participant from a health centre expressed that: "[when healthcare managers from the district and regional health bureau visited their facility] *no one has checked whether we have been using it [guidelines] or not" [IDI$_{19}$]*.

Another provider also reported that some healthcare managers were not concerned about availability or use of the guidelines.

> *When they come to us they are asking us about the drugs, and contraceptive methods, vaccinations… They are not asking about the guidelines or if we use them or not. They are always asking on the numbers on the report... for example they ask us, "why only few people are getting family planning services in a certain month" [IDI$_{14}$]*.

However, some of the participants informed that support by district managers and NGO staff was available and acted as a facilitator to use FP guidelines.

> *We do have NGO partners who are coming regularly to check our services provisions, availability of materials and contraceptive methods. They also checked the presence of family planning guidelines [IDI$_{17}$]*.

Creating a culture within the facility where the guidelines were seen as core to their service provision was suggested by a number of participants as a facilitator. *If one needs providers to use guidelines, encouragement is necessary… [IDI$_{6}$]*.

Theme 5: Resource availability: time and workforce

Resource related issues such as lack of time, shortage of trained providers, and high workload were expressed as barriers to using FP guidelines. Several of the participants reported that high client load interferes with using the guidelines. The participants referred to long queues of clients' waiting outside of the clinics to receive FP services; that made referring to the guidelines during consultations difficult. In addition, the participants reported that limited time available for each client meant that some provider prioritised using the 'consultation time' to counsel client based on what they already know rather than using the guidelines. In one participant's words: "*We do not have time… in order to read a text [guidelines], really… you should first get sufficient time" [IDI$_{13}$]*.

Additionally, the lack of appropriately trained staff added to the pressure on the existing staff and so taking the time to refer to the guidelines was considered a barrier to dealing with patient numbers. For example, participants stated:

> *In that case [in the absence of trained providers], they [untrained providers] may just provide only counselling to them [clients] and appoint for myself or other trained provider to see them when we get back… these providers are not referring to the document [guidelines]. In the facility, we do have only two trained providers, myself and another midwife [IDI8]*

Another area of concern for one participant was the facilities' inability to retain those staff who had been provided with training related to FP services and guidelines:

> *There were many providers who have got the training but they moved to other places from our facility for different reasons…there is a lot of providers' turnover here...that is a big challenge [IDI$_{17}$].*

According to a health extension worker participant, it was difficult to use guidelines during provision of FP services because providers were required to provide a number of other healthcare services along with FP services, be involved with various meetings, and to work in outreach activities in the local community.

> *We do have meetings all the time, we should give counselling for the clients, we should also need to report to district managers, and health centre… we are not in the office to read available documents, usually in the morning time "we are always out" [IDI$_{13}$].*

Another nurse explained that working on a number of tasks that are not co-located in one room but offered by one provider was also seen as a barrier to guideline use. In her words:

> *…if a midwife is assigned in one room, there is no reason that she does not use the guidelines properly. But, this will not happen here… we are going to antenatal, postnatal care, etc… Sometimes, we are rushing to reach the clients coming for different services. [IDI$_{15}$].*

Theme 6: Training

Providers' lack of or inadequate training on the contents of the FP guidelines was described as a barrier to guidelines use. For example, one participant mentioned that: "*If you are not trained you cannot use the guideline" [IDI$_3$]*. Other providers expressed:

I took the training….it was long time ago… I took it in 2005E.C (just before 4 years [IDI$_8$]

Once we have been provided a training, nobody remembers you for refreshment training… [IDI$_2$]

In contrast, other participants referred to provision of training that targets FP guidelines as a facilitator; for example one participant explained that discussing the contents of the guidelines during FP training provision may help to motivate providers to use the guidelines.

They [trainers] have highlighted some concepts in the guidelines using PowerPoint presentation. I guess, this can help providers to motivate for using them while getting back to their facilities [IDI$_{16}$].

As part of the capacity building activity, the participants described that being a FP trainer has helped them to improve their use of guidelines.

…our facility is one of the practical attachment location for family planning trainings. I am also part of the trainers' panel for the long term contraceptive methods. …the guidelines are always in my hand for me to use… I am updating myself every time…maybe... I read the book in weekly or monthly basis. I also ask other friends [colleagues] to use it [IDI$_{16}$].

Some participants acknowledged peer-learning from colleagues and identified this as a facilitator. For example, a participant described that she and her colleagues did not use the guidelines until she attended an induction training on how to use the guidelines and share the knowledge to her colleagues.

…After I received the orientation [induction] on how to use it, I have also informed [on how to use it] to all my staff and now we are using it in the same language [fashion]. The guideline had been in our facility for three….or… four months without using it [IDI$_2$].

Discussion

This is the first study conducted to understand providers' perspectives on FP guidelines use in Ethiopia. While the providers' views points to both barriers and facilitators affecting FP guidelines use in FP services, more factors related to barriers were identified and described than facilitators. Barriers exist, from providers' perspective, mainly in inadequate knowledge about the purpose of the guidelines, relevance of the guidelines for specific and practical needs of the providers, personal factors such as beliefs and traditions, and organisational factors such as inadequate resources including time and staff, lack of supervision and support.

Our findings that provider's lack of knowledge about the existence of FP guidelines and unavailability of a copy of guidelines for healthcare providers supports our previous quantitative study which found more than half of the health facilities in Ethiopia do not have FP guidelines available. [16] Lack of availability of the guidelines in health facilities points to a concern about lack of planning to distribute such resource to health facilities for use by healthcare providers. [28] Inadequate planning to effectively distribute guidelines and protocols is a persistent concern across other countries as well; for example, a 2012 Ugandan study, found that more than 60% of clinical guidelines developed by the government were not available at the service delivery level despite that these resources were available at national offices level. [29]

When guidelines were available in health facilities, other issues impeded their use, including language and format of guidelines. Other studies have also identified these features of guidelines as factors that negatively impact utilisation. [30-32]

The present study also found that a lack of information in the guidelines about common community misconceptions related to FP methods and lack of information about newly-developed contraceptive methods such as *Implanon NXT* impacted on their effective use. In Ethiopia, the current FP guidelines were intended to serve various stakeholders ranging from policy makers at the national level to FP providers at the services delivery point. As a result, instead of providing specific and practical information to assist frontline healthcare providers for effective counselling and contraceptive provision, the guidelines provide relatively general information about FP services. For example, the current version of the national FP guidelines [22] does not provide information about how to use the contraceptive methods and indications/contraindications. This finding suggests that at the health facility level, guidelines need to include specific information for the healthcare providers to use to provide effective FP services. The guidelines by the Ministry of Public Health and Sanitation of Kenya, for example, addressed this issue and provided current and up to date information on FP methods.[33] These guidelines cover the advantages and disadvantages of FP methods, medical eligibility criteria, management of common side effects, and how to address common community misperceptions about FP methods.

Healthcare providers continuing to apply, even after receiving guidelines and training, the procedures they have been applying in the past is a well-known problem in the healthcare sector, not only in developing countries, but throughout the world.[34 35] Therefore, our study

findings that providers perceive traditional ways of doing things as a barrier to guidelines use is not surprising. This problem is probably partly due to a provider's lack of commitment to implement the best practice that they gained from trainings. A study conducted in rural India found a clear gap between what the providers 'know' about the standard practices to be provided/followed for patients and what they 'do' in their routine practice during the provision of a healthcare services. [36] Therefore, this finding suggests that improving healthcare providers' use of FP guidelines require not only improvement in providers' knowledge and skills about the use of guidelines but also there need to be a regular supportive supervision and incentive mechanisms to motivate healthcare providers.

This study informed about organisational factors including the role of management support for providers to use the guideline and insufficient health workforce. Evidence shows that managerial support is important to improve use of clinical practice guidelines. [37-39] This alerts to the need for a focus on support and supervision visits by healthcare services managers at the regional level and at the facility level. Lack of sufficient health workforce was identified as a main barrier for guidelines use. A previous study conducted in four low-income countries, Uganda, Ethiopia, Tanzania, Myanmar, showed that shortage of health workforce was one of the barriers impeding guidelines implementation in the provision of maternal healthcare services across all these countries. [40] Study participants in our study also expressed that high staff turnover exacerbated the staff shortage problem in health facilities. Our study has also pointed to that time pressure due to client overload and multiple tasks was impeding guidelines use in FP services. Several studies reported that time constraint was a barrier for implementing clinical practice guidelines. [41-43]

Healthcare providers in our study highlighted the importance of training to enhance skills for effective use of guidelines and in turn provide quality of care in FP services. The need for train and skill enhancement is noted in many other studies, across a range of health issues and healthcare services provision. For example, multi-country studies, undertaken in low-and middle-income countries such as Uganda, Malawi, Tanzania, Ethiopia conducted to identify the barriers and facilitators for implementing various healthcare services guidelines including maternal healthcare services, [28 40] and mental healthcare services[44] showed that lack of or insufficient training was a barrier for implementing clinical guidelines.

Considering limitations of this study, first, the study was conducted with participants from only urban health facilitates in one geographic region of Ethiopia. Hence, as expected in

qualitative studies, the results may not be representative to rural health facilities and other regions of Ethiopia. However, we continued interviewing until data saturation, and therefore the barriers and facilitating factors that we identified may be similar in other facilities, particularly within the Amhara region. In fact, as facilities being located in rural and remote areas pose additional challenges in terms of adequate human resource, training and access to resources such as guidelines, we believe that the barriers highlighted by the study participants in Amhara region may be even more pronounced in rural and remote areas. Second, while the lead author (GAT) has been working in FP research in Ethiopia, there might be a potential bias in the research. However, the lead author was careful not to impose his own perspectives about barriers/ facilitators of FP guidelines use during data collection and analysis. The use of a single transcriber and translator limited our ability to conduct a quality assurance of transcript translations. As the co-authors, JSG, COL, AMM, have no experience in Ethiopia and they have little or no bias in the research. They were also careful not to impose their own perspectives about barriers/ facilitators of FP guidelines use during data collection and analysis. The use of a single transcriber and translator limited our ability to conduct a quality assurance of transcript translations. However, the lead investigator was careful not to impose his own perspectives about barriers/ facilitators of FP guidelines use during data collection and analysis. The co-authors, JSG, COL, AMM, have no experience in Ethiopia and hence have little or no bias in the research.

Policy and research implications

The findings of this study have important policy and research implications. While the Ethiopian government took an important initiative in developing FP guidelines its utilisation could be improved by implementing the following steps. (1) The guidelines should be translated into the local language and ensure that they are distributed to health facilities. (2) Provision of additional training for healthcare providers to improve their knowledge about the guidelines is required. The trainings should focus more on encouraging/incentivizing providers to use the guidelines and to build their confidence in referring to the guidelines in front of the clients. It should also be emphasised that the guidelines are not only to be used as a training material but also are actually a reference guide to be used continuously throughout their career. (3) Steps need to be taken to ensure that the guidelines are easily available, and that providers and managers have the time to participate in relevant trainings, as well as to deliver the standard and range of services set out in the guidelines. 4) The current national FP

guidelines are out-of-date in terms of addressing new FP methods and technologies, so the government should consider revising this guidelines. During the guidelines revision, it could be important to include more practical information required by healthcare providers which includes how to use each FP method, advantages/disadvantages, contraindications, side effects, and common community misconceptions. It would also be useful for the guidelines to be more concise and simple to carry/transfer/share and have better indexed content so that providers can find what they need to know more quickly, and more up to date information so that providers do not fear they are acting on outdated knowledge. 5) It is also necessary to establish better systems for managers to provide effective monitoring and supervision of providers and to use the opportunity to check the availability guidelines in the facilities and if the providers are properly implementing the guidelines.

Further studies examining providers' perspectives of guidelines use involving participants from other regions in Ethiopia may be required to build a comprehensive understanding of barriers and facilitators, and how to support utilisation of FP guidelines throughout the health system. While some of the barriers identified in this study such as lack of managerial support and training could be better explored by including healthcare managers, further study targeting healthcare managers is recommended to provide additional insight on these factors.

Conclusion

Provider perspectives confirmed that a range of barriers contribute to lack of use of guidelines in FP services in some health facilities in Ethiopia. The barriers observed included lack of knowledge about guidelines existence and purpose of the guidelines, lack of sufficient copies of the guidelines, providers' personal religious beliefs, a desire amongst providers to deliver services based on prior knowledge and tradition rather than protocols and guidelines, insufficient time (resource issues), lack of knowledge about the guidelines and inadequate training on how to use them. Ensuring that the guidelines were easy to access and implement and incentives for their use (e.g. recognition) were the main facilitators indented by providers in this qualitative study. While the Federal Ministry of Health of Ethiopia need to work on revising the current FP guidelines, strategies need to be designed to properly distributing these guidelines to health facilities providing FP services. Future FP guidelines development need to focus on providing concise, easy to carry guidelines with a more practical information for healthcare providers.

Data sharing statement

All the required data used in the research is included in the text.

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Contributors

GAT contributed to the study concept and design; acquisition, analysis and interpretation of data; drafting and critical revision of the manuscript. JSG, COL, MAM contributed to the study concept and design, as well as the critical revision of the manuscript. All the authors have approved the manuscript.

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Table 1. Summary of the 2011 national guidelines for family planning services in Ethiopia

Developed by:	A panel of experts from: • Government (Ministry of Health of Health) • Addis Ababa University • Non-governmental organisations working in Ethiopia (DKT, EngenderHealth, FHI, Ipas, WHO, Marie Stopes International, IFHP, UNFPA, Venture Strategy, JSI/Deliver)
Intended users:	• Policy makers • Health managers • FP program coordinators and managers at all levels • All cadres of health care providers and instructors at health training institutions • FP researchers, monitors and evaluators • Donors, other stakeholders and implementers of FP programs in government, non-government and private sectors
Objectives:	• Guide FP programmers and implementers at government, non-government, bilateral and multilateral organisations, private sector as well as charity and civic institutions • Guide to all cadres of health care providers directly or indirectly involved in the provision of FP services including pre-service and in-service training • Set standards for FP programs and services • Standardise various components of FP services at all levels • Expand and improve quality of FP services to be offered • Direct integration of FP services with other reproductive health services, and • Serve as a general directive and management tool.
Main content:	• Goals and objectives of the Family Planning Guideline • FP Services* • FP Service Strategies • Services for Clients with Special Needs • Advocacy communications and social mobilisation • Contraceptive supplies and management • Quality of Care in Family Planning • Health Management Information System

Source: Ministry of Health. National Guidelines for Family Planning Services in Ethiopia. Addis Ababa: Ministry of Health, 2011.

**This section describes the range of FP services provided in the health facilities. The services specified are counselling, provision of contraceptive methods, screening services for sexual transmitted infections, HIV and reproductive organ cancers, prevention and management of fertility treatment*

FP- Family Planning FHI- Family Health International IFHP- Integrated Family Health Program JSI- John Snow Incorporation UNFPA- United Nations Fund for Population Agency WHO- World Health Organization

Table 2. Characteristics of participants

Characteristics	Number	Percent
Sex		
Female	18	85.7
Male	3	14.3
Age (years)		
25-30	10	47.6
>30	11	52.4
Mean age		30 (SD=4.9)
Range		Min=25, max=49
Profession		
HEW	4	19.0
Midwife	10	47.6
Nurse	7	33.3
Highest qualification		
BSc	8	38.1
Diploma	13	61.9
Facility in which provider provided FP services		
Ayer-marefia Health Post	2	9.5
Azezo Health Centre	3	14.3
Belay Zeleke Health Post	2	9.5
Felege-hiwot Hospital	2	9.5
Gebriel Health centre	2	9.5
Gondar Health centre	1	4.8
Han Health Centre	2	9.5
Maraki Health Centre	2	9.5
University of Gondar Hospital	5	23.8
Types of facility from which participants were recruited		
Health Centre	10	47.6
Hospital	7	33.3
Health Post	4	19.0
Total number of work experience in the provision of FP services		
Mean	2.85 (SD=1.7), Min=1, Max=7	

Table 3. Summary of provider perceptions of factors (barriers and facilitators) related to implementation of FP guidelines

Theme	**Sub-themes**
Knowledge and access	• Awareness of guideline existence • Understanding of guideline purpose • Dissemination / availability of the guidelines • Size of the guideline • Language and layout of the guidelines
Quality of the guidelines	• Scope of the guidelines • Content of the guidelines
Provider behaviour and values	• Beliefs of providers (e.g. views about what should be provided based on religion) • Values (e.g. commitment to use of health standards) • Habits (e.g. practice according to traditional ways of doing things and expert knowledge of providers)
Support and supervision from managers	• Supervision • Monitoring of guidelines implementation • Incentives created for guideline implementation
Resource availability: time and workforce	• Availability of trained providers • Time pressure • Required activities
Training	• Frequency of training • Content of training • Peer-learning

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Healthcare providers perspectives on use of family planning guideline in family planning services in Amhara Region, Ethiopia: A qualitative study

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Abstract

Objective: To explore healthcare providers' views on barriers to and facilitators of use of family planning (FP) guideline in FP services in Amhara Region, Ethiopia.

Design: Qualitative study

Setting: Nine health facilities including two hospitals, five health centres, and two health posts in Amhara region, Northwest Ethiopia.

Participants: Twenty-one healthcare providers working in the provision of FP services in Amhara region.

Primary and secondary outcome measures:

Semi-structured interviews were conducted to understand healthcare providers' views on barriers to and facilitators of FP guideline use in FP services.

Results: While the providers' views points to a few facilitators that promote the use FP guideline, more barriers were identified. The barriers for guideline use included lack of knowledge about the guideline's existence, purpose and quality, the providers' personal religious beliefs, reliance on prior knowledge and tradition rather than protocols and guideline, lack of or insufficient access, and inadequate training on use of guideline. Facilitators for guideline use were related to access to the guideline, convenience and ease of implementation and of incentives in terms of recognition for providers to use the guideline.

Conclusions: While development of the guideline is a major important initiative by the Ethiopian government, continued use of this resource by all healthcare providers requires planning to promote facilitating factors and address barriers related to use of the FP guideline. Training that includes a discussion about providers' beliefs and traditional practices as well as other factors that reduce the use of guideline, provision of sufficient number of copies, and translation in local language would be useful.

Strengths and limitations of this study

- Strength: It was the first study to explore the barriers and facilitators of use of the FP guideline in FP services in Ethiopia.

- Limitation: the study was conducted with participants from only urban health facilitates in one geographic region of Ethiopia.
- Limitation: the use of a single transcriber and translator, however the lead investigator was careful not to impose his own perspectives about barriers/ facilitators of FP guideline use.

Introduction

Similar to other low income countries in Africa, Ethiopia has a high maternal mortality rate, with 412 deaths per 100,000 live births.[1] This compares with an average of 196 per 100,000 live births at a global level.[2] Ensuring that all women can easily access and use appropriate and effective family planning (FP) services is widely regarded as critical in reducing maternal mortality [3 4]. However, the rate of FP service utilisation remains low in Ethiopia with only 35% of married women using FP services.[1]

Ensuring quality of care is critical in improving and maintaining high levels of FP services utilisation. [5-11] Developing evidence-based clinical practice guidelines and implementing them throughout the health system, is key to building quality of care. [12-14] Clinical practice guidelines are "statements that include recommendations intended to optimize patient care that are informed by a systematic review of evidence and an assessment of the benefits and harms of alternative care options".[15p4] Studies conducted in Ethiopia and Kenya have shown that the availability of FP guidelines was positively associated with improved quality of care in FP service delivery.[16 17] For example, Stanback et al.[17] showed that when FP guidelines are properly distributed to healthcare facilities offering FP services, the reliable presence of these guidelines helps to improve health providers' sustained use of the guidelines and thereby the quality of FP service delivery. For guidelines to be effectively implemented and support quality care, they should be based on the findings of systematic reviews that include quality evidence; developed by a knowledgeable, multidisciplinary panel of experts and representatives from key affected groups and consider important patient subgroups and patient preferences. [15 18]

To support the improvement of quality of care in FP services, the World Health Organisation (WHO) has developed guidelines, including the medical eligibility criteria (MEC) for contraceptive use. [19 20] Informed by the MEC, several countries, including Ethiopia, have developed FP guidelines. In Ethiopia, FP guideline was first developed in1996, and last updated in 2011, and is the only FP guideline available in Ethiopia. [21 22] A summary of the 2011 national FP guideline [22] considered in the present study is provided in Table 1. The guideline is intended to be used by policy makers and health professionals providing FP services at all levels of the health system in Ethiopia.

A recent study on the factors associated with quality of care in FP services in Ethiopia reports that less than half of the facilities (46%) had FP guidelines/protocols, suggesting inadequate

dissemination and uptake of FP guidelines.[16] No study has examined factors influencing utilisation of FP guideline in FP services in Ethiopia. Understanding the healthcare provider experiences of using guideline in FP services can help inform initiatives to improve guideline implementation and thus quality of care provision in Ethiopia. The aim of this study was to explore healthcare providers' views on the use of FP guideline in FP services in Amhara Region, Ethiopia, focusing on barriers and facilitators.

Methods

Study design and setting

This study used in-depth interviews guided by a semi-structured interview guide for data collection. The study was conducted in two big cities- Bahir Dar city and Gondar city- located in Amhara region, Northwest Ethiopia between April and June 2017. Study participants were recruited from nine health facilities including two hospitals, five health centres, and two health posts. The Amhara region is the second largest of the 11 administration areas in Ethiopia, with a population of approximately 21 million, 23% of Ethiopia's total population. [23] The region has 19 hospitals, 796 health centres, and 3267 health posts. [24] FP services are provided in all the health facilities in this region. In hospitals, FP services are provided in gynecology departments by midwives, nurses, or doctors. In health centres, FP services are provided through maternal and child health (MCH) departments by nurses, midwives, or health officers. Health Extension Workers provide FP services in health posts.

Participants

Before contacting the study participants, we selected health facilities purposively, to include three types of health facilities - hospitals, health centres, and health posts. In the selected health facilities, potential study participants were approached in staff meetings, where they were provided information about the study and requested to express their willingness to be part of the study. Those staff who expressed willingness to be part of the study were contacted by telephone to further discuss the study, including the study objectives, potential risks to participants, other ethical issues, and to arrange a convenient time and place for the interview. To be part of the study, participants had to be healthcare providers who had worked a minimum of six months providing FP services. This helped to explore providers' direct/real experiences on factors affecting use of FP guideline in FP services. While it was

initially anticipated to include up to 15 study participants, recruitment of participants were conducted until saturation was achieved in that no new barrier or facilitator were identified. As a result, a total of 21 providers (18 female, 3 males) were interviewed. See Table 2 for further details on participant characteristics).

Data collection

Data were collected through face-to-face in-depth interviews in the local language (Amharic) by the lead author (GAT). In-depth interviews were used as this approach allows exploring individual experiences/views/perceptions of healthcare providers working in the provision of FP services. Unlike the focus group discussion, the findings in the in-depth interviews are not influenced by the views of other participants.[25] All except one of the interviews were audio-recorded. For the one interview in which the participant declined to give consent for audio-recording, notes were taken. The interview guide included questions inquiring about barriers and facilitators of guideline utilisation in FP services as well as questions on participant characteristics. The interview guide is available from the lead author.

Data analysis

The audio-recorded interviews and notes taken were translated and transcribed into English by the lead author and entered into NVivo 11™ for analysis. [26] Thematic analysis according to the approach described by Braun and Clarke [27] was employed. The epistemological framework for this analysis was essentialist/realist, aiming to understand and report the experiences, meaning, and reality of study participants regarding barriers and facilitators in using FP guideline in the provisions of FP services. [27] Data analysis was led by GAT who first read and re-read the transcripts to familiarise himself with the data, and then systematically coded the data related to barriers and facilitators. GAT is a reproductive health researcher who has been working in family planning research in Ethiopia. His knowledge about the local culture, values and context of the study setting enhanced the research in terms of enabling probing questions during the interviews and appropriate interpretation of the data and identification of the barriers/facilitators. JSG has knowledge of the context surrounding guidelines utilisation and healthcare delivery in resource-limited African settings which assists with appropriate interpretation of the data collected. COL and MAM are also well-experienced in qualitative research and this helped in data analysis and interpretation of the findings. The coding was conducted inductively; with codes informed by the data rather than

pre-existing frameworks. The codes were developed through an iterative process involving the co-authors (JSG, COL, MAM), who having read a sample of three transcripts, discussed the emerging codes. Disagreements and discrepancies around codes, themes, and sub-themes were resolved by consecutive discussions and reference to the original transcript document. Finally, the codes were grouped based on similarities into themes and sub-themes.

Ethical considerations

Ethical approvals were obtained from the Human Research Ethics Committee (HREC) at the University of Adelaide (Protocol # H-2017-023) and the Institutional Review Board (IRB) at the University of Gondar, Ethiopia (Protocol # O/V/P/RCS/05/562/2017). Informed written consent was obtained from each study participant before the start of the interviews.

Patient and public involvement

Patients or members of the public were not involved in the development, design or conduct of this study.

Results

Overall, six main barriers and facilitators in using FP guideline in FP services were identified. These barriers and facilitators are summarised as themes and sub-themes in Table 3.

Theme 1: Knowledge and access to the guideline

Providers' knowledge of and access to FP guideline were identified as a key theme impacting the use of FP guideline in providing FP services. Lack of awareness about the FP guideline was perceived as a barrier preventing guideline use. In this regard, three participants reported that they were not aware of the existence of the national guideline for the provisions of FP services; as one provider said "*I have not heard about it [national family planning guideline]…" [In-depth Interviewee (IDI)$_{14}$].*

Several other providers indicated that they were aware of the guidelines, but did not understand their purpose adequately. They said that they perceived the guidelines as 'training material/manual', only provided during training, rather than health standards to be used at their health facility. This view of the guidelines was demonstrated when a participant described the guidelines in their facility as 'compilation of printed training materials' provided in FP trainings. Another participant said:

> *…it is because of the guidelines… it is large…we got it from Ipas NGO… it was a collection [compilation] of training materials… laminated together in a book form [ID1$_{18}$].*

Other providers who indicated that they were aware of the guideline, referred to inadequate knowledge about how to use the guideline: "*Since we did not understand on how to use it… we have not been using it [guideline] for so long…" [IDI$_2$].*

A lack of access to the guideline was described as not having guideline available in the facility, insufficient copies of guideline or guideline not provided in a convenient location in the facility.

> *I think, this guideline has to be accessible to various rooms. We have only a copy. [IDI$_{19}$].*

> *We do not have family planning guideline. We just work by looking into what other providers do and by asking them if there are concerns that we are not sure. That is how we do. [IDI$_{11}$].*

> *We wish to use it, but we do not have it… that is the reason we are not using. [IDI$_1$].*

In some instances, where the facility provided copies of FP guideline, participants explained that they were often taken away or lost. In this regard, a midwife expressed his concern that students or someone else removes the guideline from the facility.

> *The hospital may prepare it or got it from somewhere else [other organizations]…but someone may put it at some place for a provider to access it easily. …and then a provider has accessed it for use but failed to put it back… and lost from the facility… that is my assumption. He [provider] just put [it] somewhere or may take it to his home and finally forget it… forgot to bring back. It may also mixed up with other documents and then it became a difficult job to find it for use. [IDI$_{15}$].*

Another participant described that although providers received copies of guideline during training sessions, they kept the guideline at their homes, rather than using them in the facility.

> *I had been working in health centre… far from this town…small town. By that time, we [I and colleagues] had been provided the guideline at the training but we dropped it in our homes [instead of bringing it for use in the facility], we did not bring it to the facility. [IDI$_{12}$].*

Lack of easy access to the copies of the guideline for immediate referral during services provision was mentioned as a barrier by some participants – "*One problem is that we are not putting the guideline in our nearby areas" [IDI$_{12}$].*

Participants expressed that because of the large size of the guideline, they were not only unable to locate specific information in the text but also found it difficult to carry to outreach areas.

> *…it is somehow difficult to get the exact page where the information we are looking for is located [IDI$_2$].*

> *It is also difficult to bring the guideline to use in the villages along other stuff. It is heavy for us… we are also carrying our own stuff in the bag. Most of the time, we are forced not to take it with us [IDI$_{13}$].*

The guideline were only provided in English and this was seen by some participants as a barrier to their use, particularly for those healthcare providers who do not understand English well.

> *There might be some healthcare providers that could not easily understand English. For them, it is better to have Amharic version or guideline in both languages [Amharic and English] [IDI$_4$].*

In terms of the facilitators related to the use of the guideline, providers reported that convenient access to the guideline, ease to use and the format of the guideline were perceived by the participants as important facilitators for their use. For example, a participant said that when the FP guideline was conveniently available in the facilities for providers it was perceived as a facilitator for its use.

> *The guideline is always available in our room, it is just located on the table, anyone who want to refer it can found easily [IDI$_8$].*

Moreover, a nurse from health centre felt that passing the guideline to the next colleague when a provider is changing shifts or travelling to other areas was helpful in improving use of guideline.

> *I also pass the guideline for the next person if I am going to travel somewhere. That is what I think. I believe, following the guideline would help a provider to provide a proper counselling…which is really a key issue for a client and for providers to remind him to use the guideline. That is what I believe [IDI$_{21}$].*

Ensuring ease of use and its carrying convenience were also demonstrated as a facilitator for the use of the guideline. From a provider's perspective, several participants described that they inclined to use the WHO eligibility criteria than the FP guideline as the former was easier to get the intended information and being smaller in size made it lighter to carry on when they travelled to villages for outreach services.

> *For example, the WHO guideline is very simple and easy. Just you need to put on the table and then look at the notes inside the circle while national guideline is a book and it needs [us] to search for a page. So making it easier to use is good for providers [IDI$_3$].*

In line with this, some participants suggested that for the guideline to be easier to use by healthcare providers, different colours and pictures need to be used within the guideline.

> *… it would also be good if they use different colours…green, red, pink to denote which methods should not be taken for some diseases. If you see red, you do not give…but for green marked one… you can do….you know, making it something like the WHO eligibility criteria [IDI$_{12}$].*

> *I need a guideline having different pictures [figures]… do you know what I mean, for example ….a guideline with a U-shape pictures [to indicate] for five-year family planning*

[IUCD]. …sometimes you will forget what you have been told in training… it will not stay long after a year or two… it will be forgotten. The guideline shall also have a clear indications on landmarks [anatomical] for the measurement before inserting the contraceptive methods [IDI$_9$].

Additionally, the participants indicated providing copies of in the local language, besides providing an English version, can improve its utilisation.

But, I prefer to have an Amharic version …and in that case, I can go and read the Amharic version if the English version is not clear for me [IDI$_{15}$]

Theme 2: Quality of the guideline

Another theme arising from the interviews related to the scope of the guideline, content and currency which the FP information contained.

Participants reported that the guideline included a large number of health issues beyond FP, making it difficult to navigate.

We have a guideline that included everything in it. It also deals about malaria… HIV… sanitation, nutrition besides family planning for families in the community… It was not possible to easily get the information about family planning services in it [guideline] [IDI$_{13}$].

Another barrier to the use of the FP guideline was that the guideline was often considered out of date and not covering the latest contraceptive methods. A nurse from health centre expressed:

Plus, it [the current guideline] did not include information about the newly developed and available methods… there is a new implant method which is called "Implanon NXT". This method is now under distribution for health facilities. This method has its own insertion procedure, but you could not get it in the current version of the guideline [IDI$_{17}$].

Finally, the guideline did not provide the important information to assist FP providers to undertake their work effectively. For example, no guidance was provided on dealing with community misconceptions about contraception.

In the guideline… I found there is lacking about the common misconceptions [about the family planning methods] in the community… if you know them... you will be ready to

address during the counselling session… sometimes, you will face with emergency questions in such a way that… "does it lead to this or that?"… if these information are available in the guideline, a provider will be aware of them and getting ready to handle [answer] them [IDI$_{17}$].

Theme 3: Provider behaviour, values and beliefs

More than half of the participants described that many healthcare providers tend to rely on their prior knowledge and practices learnt throughout their career rather than using the available guideline. The participants felt those providers keep doing things the usual way, as in the past, even after attending FP trainings involving guideline implementation.

…health professionals are providing family planning services just by tradition…without updating him/herself [by reading guideline]. Especially…the so-called 'chronic staff'…those staff who upgraded themselves gradually from health assistant to junior nurse and then to [diploma]nurse…and then to bachelor degree nurse…they do not want to be guided by guideline…not at all…they just follow what they have been doing for 10…20 or more years in the past [IDI$_{21}$].

Some of the participants who had worked for many years in FP services continue to rely on their knowledge and experience rather than referring to guideline.

We are working here by our experiences. I have been working here for long time…so I do not use anything for providing family planning services (IDI$_1$).

It was also described by some participants that lack of commitment to use health standards by healthcare providers influenced their use of FP guideline.

Additionally [another reason for not using guideline]…it is because of carelessness of the healthcare provider… providing family planning services just by tradition…without updating himself. [IDI$_{21}$]

…those providers who got the training are aware of that fact… that they should use the guideline…but they are not following[using] the laws or legislations [guideline]… there is ignorance … [IDI$_{12}$].

Other participants expressed that some providers perceive themselves as having sufficient knowledge and a belief that they can provide services without the need of any guideline. For

example, a provider expressed "We thought…we know everything in the document [guideline]" [IDI$_{14}$]."

For some participants, the habit of not reading any material provided was a barrier. One of the participants mentioned that "*Most of our people [including providers] do not have a good culture [habit] of reading books… let alone family planning guideline. [IDI$_{16}$].*

It was also noted that some providers were not comfortable reading the guideline in front of clients. They would rather rely on their personal experiences.

> *When you have clients sitting in front of you, it is boring to do [refer guideline] that. That is why I prefer providing the services from my experiences [IDI$_4$]*

It was not all negative. One participant described his personal change in terms of commencing to use FP guideline.

> *I am using it [guideline] rather than following the traditional [practice based on prior knowledge]... I tried to abandon [change] the old tradition to work without referring to family planning guideline… [IDI$_{16}$].*

One participant presented the view that the religious beliefs of some providers were a barrier in the utilisation of the FP guideline:

> *…quite a number of providers do have a negative attitude for family planning and safe abortion. They consider it as a religiously prohibited thing…they always associate it with religion…and they do not accept it. Overall, I can say, their utilisation of the guideline is limited. [ID1$_{16}$]*

The same participant expressed that in some instances providers' motivation to attend FP related training was the provision of per-diems rather than obtaining knowledge about the FP services and available guideline to support FP services.

> *Many providers are going to the training…not just for learning new knowledge on it [family planning services and use of guideline], it is rather to get the per-diems during the training…They do not seem to provide the [family planning] services properly using the guideline…we are observing that every time [IDI$_{16}$].*

Theme 4: Manager support and supervision

Another theme arising from the interviews concerns the role of supervisors, including district managers and staff from non-governmental organisation (NGO). One midwife said that supervisor's lack of emphasis on the guideline when monitoring service delivery was an issue. More particularly, the midwife participant from a health centre expressed that: "[when healthcare managers from the district and regional health bureau visited their facility] *no one has checked whether we have been using it [guideline] or not" [IDI$_{19}$]*.

Another provider also reported that some healthcare managers were not concerned about availability or use of the guideline.

> *When they come to us they are asking us about the drugs, and contraceptive methods, vaccinations… They are not asking about the guideline or if we use them or not. They are always asking on the numbers on the report... for example they ask us, "why only few people are getting family planning services in a certain month" [IDI$_{14}$].*

However, some of the participants said that support by district managers and NGO staff was available and acted as a facilitator to use FP guideline.

> *We do have NGO partners who are coming regularly to check our services provisions, availability of materials and contraceptive methods. They also checked the presence of family planning guideline [IDI$_{17}$].*

Creating a culture within the facility where the guideline were seen as core to their service provision was suggested by a number of participants as a facilitator. *If one needs providers to use guideline, encouragement is necessary… [IDI$_{6}$].*

Theme 5: Resource availability: time and workforce

Resource related issues such as lack of time, shortage of trained providers, and high workload were expressed as barriers to using FP guideline. Several of the participants reported that a high client load interferes with using the guideline. The participants referred to long queues of clients waiting outside of the clinics to receive FP services, which made referring to the guideline during consultations difficult. In addition, the participants reported that limited time available for each client meant that some providers prioritised using the 'consultation time' to counsel the client based on what they already know rather than using the guideline. In one participant's words: "*We do not have time… in order to read a text [guideline], really… you should first get sufficient time" [IDI$_{13}$].*

Additionally, the lack of appropriately trained staff added to the pressure on the existing staff and so taking time to refer to the guideline was considered a barrier to dealing with patient numbers. For example, participants stated:

> *In that case [in the absence of trained providers], they [untrained providers] may just provide only counselling to them [clients] and appoint for myself or other trained provider to see them when we get back… these providers are not referring to the document [guideline]. In the facility, we do have only two trained providers, myself and another midwife [IDI$_8$]*

Another area of concern for one participant was the facilities' inability to retain those staff who had been provided with training related to FP services and guideline:

> *There were many providers who have got the training but they moved to other places from our facility for different reasons…there is a lot of providers' turnover here...that is a big challenge [IDI$_{17}$].*

According to a health extension worker participant, it was difficult to use guideline during provision of FP services because providers were required to provide a number of other healthcare services along with FP services, to be involved with various meetings, and to work in outreach activities in the local community.

> *We do have meetings all the time, we should give counselling for the clients, we should also need to report to district managers, and health centre… we are not in the office to read available documents, usually in the morning time "we are always out" [IDI$_{13}$].*

Another nurse explained that working on a number of tasks that are not co-located in one room but offered by a sole provider was also seen as a barrier to guideline use. In her words:

> *…if a midwife is assigned in one room, there is no reason that she does not use the guideline properly. But, this will not happen here… we are going to antenatal, postnatal care, etc… Sometimes, we are rushing to reach the clients coming for different services. [IDI$_{15}$].*

Theme 6: Training

Providers' lack of or inadequate training on the contents of the FP guideline was described as a barrier to guideline use. For example, one participant mentioned that: "*If you are not trained you cannot use the guideline" [IDI$_3$].* Other providers expressed:

I took the training….it was long time ago… I took it in 2005E.C (just before 4 years [IDI$_8$]

Once we have been provided a training, nobody remembers you for refreshment training… [IDI$_2$]

In contrast, other participants referred to provision of training that targets the FP guideline as a facilitator; for example one participant explained that discussing the contents of the guideline during FP training provision may help to motivate providers to use the guideline.

They [trainers] have highlighted some concepts in the guideline using PowerPoint presentation. I guess, this can help providers to motivate for using them while getting back to their facilities [IDI$_{16}$].

As part of the capacity building activity, the participants described that being a FP trainer has helped them to improve their use of guideline.

…our facility is one of the practical attachment location for family planning trainings. I am also part of the trainers' panel for the long term contraceptive methods. …the guideline are always in my hand for me to use… I am updating myself every time…maybe... I read the book in weekly or monthly basis. I also ask other friends [colleagues] to use it [IDI$_{16}$].

Some participants acknowledged peer-learning from colleagues and identified this as a facilitator. For example, a participant described that she and her colleagues did not use the guideline until she attended an induction training on how to use the guideline and share the knowledge to her colleagues.

…After I received the orientation [induction] on how to use it, I have also informed [on how to use it] to all my staff and now we are using it in the same language [fashion]. The guideline had been in our facility for three….or… four months without using it [IDI$_2$].

Discussion

This is the first study conducted to understand providers' perspectives on FP guideline use in Ethiopia. While the providers' views point to both barriers and facilitators affecting FP guideline use in FP services, more factors related to barriers were identified and described than facilitators. Barriers that exist, from providers' perspective, are mainly inadequate knowledge about the purpose of the guideline, relevance of the guideline for specific and practical needs of the providers, personal factors such as beliefs and traditions, and

organisational factors such as inadequate resources including time and staff, lack of supervision and support.

Our findings that provider's lack of knowledge about the existence of the FP guideline and unavailability of a copy of for healthcare providers support our previous study which found more than half of the health facilities in Ethiopia do not have the FP guideline available. [16] Lack of availability of the guideline in health facilities points to a concern about lack of planning to distribute such resource to health facilities for use by healthcare providers. [28] Inadequate planning to effectively distribute guidelines and protocols is a persistent concern across other countries as well; for example, a 2012 Ugandan study, found that more than 60% of clinical guidelines developed by the government were not available at the service delivery level, despite that these resources were available at national offices level. [29]

When guidelines were available in health facilities, other issues impeded their use, including language and format of guidelines. Other studies have also identified these features of guidelines as factors that negatively impact utilisation. [30-32]

The present study also found that a lack of information in the guideline about common community misconceptions relating to FP methods and lack of information about newly-developed contraceptive methods such as *Implanon NXT* impacted on their effective use. In Ethiopia, the current FP guideline was intended to serve various stakeholders ranging from policy makers at the national level to FP providers at the services delivery point. As a result, instead of providing specific and practical information to assist frontline healthcare providers for effective counselling and contraceptive provision, the guideline provide relatively general information about FP services. For example, the current version of the national FP guideline [22] does not provides information about how to use contraceptive methods and indications/contraindications. This finding suggests that at the health facility level, the guideline needs to include specific information for the healthcare providers to use to provide effective FP services. The guidelines by the Ministry of Public Health and Sanitation of Kenya, for example, addressed this issue and provided current and up to date information on FP methods.[33] These guidelines cover the advantages and disadvantages of FP methods, medical eligibility criteria, management of common side effects, and how to address common community misperceptions about FP methods.

Healthcare providers continuing to apply, even after receiving guidelines and training, the procedures they have been applying in the past is a well-known problem in the healthcare sector, not only in developing countries, but throughout the world.[34 35] Therefore, our study findings that providers perceive traditional ways of doing things as a barrier to guideline use is not surprising. This problem may be probably due, in part, to low levels of commitment on the part of providers to implement best practices learned during technical training. A study conducted in rural India found a clear gap between what the providers 'know' about the standard practices to be provided/followed for patients and what they 'do' in their routine practice during the provision of a healthcare services. [36] Therefore, while our findings suggest that improving healthcare providers' use of FP guideline will require increased provider knowledge and skill, in light of emerging literature on provider motivation suggesting that these efforts be combined with regular supportive supervision and incentive mechanisms to motivate healthcare providers.

This study informed about organisational factors including the role of management support for providers to use the guideline and insufficient health workforce. Evidence shows that managerial support is important to improve use of clinical practice guidelines. [37-39] This alerts to the need for a focus on support and supervision visits by healthcare services managers at the regional level and at the facility level. Lack of sufficient health workforce was identified as a main barrier for guidelines use. A previous study conducted in four low-income countries, Uganda, Ethiopia, Tanzania and Myanmar, showed that shortage of health workforce was one of the barriers impeding guidelines implementation in the provision of maternal healthcare services across all these countries. [40] Participants in our study also suggested that high staff turnover exacerbated the staff shortage problem in health facilities. Our study has also pointed out that time pressure due to client overload and multiple tasks was impeding guideline use in FP services. Several studies reported that time constraint was a barrier for implementing clinical practice guidelines. [41-43]

Healthcare providers in our study highlighted the importance of training to enhance skills for effective use of guidelines and in turn provide quality of care in FP services. The need for training and skill enhancement is noted in many other studies, across a range of health issues and healthcare services provision. For example, multi-country studies, undertaken in low-and middle-income countries such as Uganda, Malawi, Tanzania and Ethiopia conducted to identify the barriers and facilitators for implementing various healthcare services guidelines

including maternal healthcare services, [28 40] and mental healthcare services[44] showed that lack of or insufficient training was a barrier for implementing clinical guidelines.

Considering limitations of this study, the first study was conducted with participants from only urban health facilitates in one geographic region of Ethiopia. Hence, as expected in qualitative studies, the results may not be representative of rural health facilities and other regions of Ethiopia. However, we continued interviewing until data saturation, and therefore the barriers and facilitating factors that we identified may be similar in other facilities, particularly within the Amhara region. In fact, as facilities being located in rural and remote areas pose additional challenges in terms of adequate human resource, training and access to resources such as guideline, we believe that the barriers highlighted by the study participants in Amhara region may be even more pronounced in rural and remote areas. Second, while the lead author (GAT) has been working in FP research in Ethiopia, there might be a potential bias in the research. However, the lead author was careful not to impose his own perspectives about barriers/ facilitators of FP guideline use during data collection and analysis. The use of a single transcriber and translator limited our ability to conduct a quality assurance of transcript translations. As the co-authors, JSG, COL and AMM, have no experience in Ethiopia and they have little or no bias in the research. They were also careful not to impose their own perspectives about barriers/ facilitators of FP guideline use during data collection and analysis. The use of a single transcriber and translator limited our ability to conduct a quality assurance of transcript translations.

Policy and research implications

The findings of this study have important policy and research implications. While the Ethiopian government took an important initiative in developing the FP guideline, its utilisation could be improved by implementing the following steps: (1) The guideline should be translated into the local language and ensure that it is distributed to health facilities; (2) Provision of additional training for healthcare providers to improve their knowledge about the guideline is required. The trainings should focus more on encouraging/incentivizing providers to use the guideline and to build their confidence in referring to the guideline in front of the clients. It should also be emphasised that the guideline is not only to be used as a training material but also are actually a reference guide to be used continuously throughout their career; (3) Steps need to be taken to ensure that the guideline is easily available, and that providers and managers have the time to participate in relevant trainings, as well as to deliver

the standard and range of services set out in the guideline. 4) The current national FP guideline is out-of-date in terms of addressing new FP methods and technologies, so the government should consider revising this guideline. During the guideline revision, it could be important to include more practical information required by healthcare providers which includes how to use each FP method, advantages and disadvantages, contraindications, side effects, and common community misconceptions. It would also be useful for the guideline to be more concise and simple to carry, transfer and share and have better indexed content so that providers can find what they need to know more quickly, and with more up to date information so that providers do not fear they are acting on outdated knowledge. 5) It is also necessary to establish better systems for managers to provide effective monitoring and supervision of providers and to use the opportunity to check the availability guideline in the facilities and if the providers are properly implementing the guideline.

Further studies examining providers' perspectives of guideline use involving participants from other regions in Ethiopia may be required to build a comprehensive understanding of barriers and facilitators, and how to support utilisation of the FP guideline throughout the health system. While some of the barriers identified in this study such as lack of managerial support and training could be better explored by including healthcare managers, further study targeting healthcare managers is recommended to provide additional insight on these factors.

Conclusion

Provider perspectives confirmed that a range of barriers contribute to lack of use of the guideline in FP services in some health facilities in Ethiopia. The barriers observed included lack of knowledge about the existence and purpose of the guideline, lack of sufficient copies of the guideline, providers' personal religious beliefs, a desire amongst providers to deliver services based on prior knowledge and tradition rather than protocols and guideline, insufficient time (resource issues), lack of knowledge about the guideline and inadequate training on how to use them. Ensuring that the guideline was easy to access and implement and incentives for their use (e.g. recognition) were the main facilitators indented by providers in this qualitative study. While the Federal Ministry of Health of Ethiopia needs to work on revising the current FP guideline, strategies must be designed to properly distribute the guideline to health facilities providing FP services. Future FP guideline development needs to focus on providing concise, easy to carry guideline with a more practical information for healthcare providers.

Data sharing statement

All the required data used in the research is included in the text.

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Contributors

GAT contributed to the study concept and design; acquisition, analysis and interpretation of data; drafting and critical revision of the manuscript. JSG, COL, MAM contributed to the study concept and design, as well as the critical revision of the manuscript. All the authors have approved the manuscript.

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Competing interest None

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Table 1. Summary of the 2011 national guideline for family planning services in Ethiopia [22]

Developed by:	A panel of experts from: • Government (Ministry of Health of Health) • Addis Ababa University • Non-governmental organisations working in Ethiopia (DKT, EngenderHealth, FHI, Ipas, WHO, Marie Stopes International, IFHP, UNFPA, Venture Strategy, JSI/Deliver)
Intended users:	• Policy makers • Health managers • FP program coordinators and managers at all levels • All cadres of health care providers and instructors at health training institutions • FP researchers, monitors and evaluators • Donors, other stakeholders and implementers of FP programs in government, non-government and private sectors
Objectives:	• Guide FP programmers and implementers at government, non-government, bilateral and multilateral organisations, private sector as well as charity and civic institutions • Guide to all cadres of health care providers directly or indirectly involved in the provision of FP services including pre-service and in-service training • Set standards for FP programs and services • Standardise various components of FP services at all levels • Expand and improve quality of FP services to be offered • Direct integration of FP services with other reproductive health services, and • Serve as a general directive and management tool.
Main content:	• Goals and objectives of the Family Planning Guideline • FP Services* • FP Service Strategies • Services for Clients with Special Needs • Advocacy communications and social mobilisation • Contraceptive supplies and management • Quality of Care in Family Planning • Health Management Information System

Source: Ministry of Health. National Guideline for Family Planning Services in Ethiopia. Addis Ababa: Ministry of Health, 2011.

**This section describes the range of FP services provided in the health facilities. The services specified are counselling, provision of contraceptive methods, screening services for sexual transmitted infections, HIV and reproductive organ cancers, prevention and management of fertility treatment*

FP- Family Planning FHI- Family Health International IFHP- Integrated Family Health Program

JSI- John Snow Incorporation UNFPA- United Nations Fund for Population Agency WHO- World Health Organization

Table 2. Characteristics of participants

Characteristics	Number	Percent
Sex		
Female	18	85.7
Male	3	14.3
Age (years)		
25-30	10	47.6
>30	11	52.4
Mean age		30 (SD=4.9)
Range		Min=25, max=49
Profession		
HEW	4	19.0
Midwife	10	47.6
Nurse	7	33.3
Highest qualification		
BSc	8	38.1
Diploma	13	61.9
Facility in which provider provided FP services		
Ayer-marefia Health Post	2	9.5
Azezo Health Centre	3	14.3
Belay Zeleke Health Post	2	9.5
Felege-hiwot Hospital	2	9.5
Gebriel Health centre	2	9.5
Gondar Health centre	1	4.8
Han Health Centre	2	9.5
Maraki Health Centre	2	9.5
University of Gondar Hospital	5	23.8
Types of facility from which participants were recruited		
Health Centre	10	47.6
Hospital	7	33.3
Health Post	4	19.0
Total number of work experience in the provision of FP services		
Mean	2.85 (SD=1.7), Min=1, Max=7	

693 Table 3. Summary of provider perceptions of factors (barriers and facilitators) related to
694 implementation of FP guideline

Theme	**Sub-themes**
Knowledge and access	• Awareness of guideline existence • Understanding of guideline purpose • Dissemination / availability of the guideline • Size of the guideline • Language and layout of the guideline
Quality of the guideline	• Scope of the guideline • Content of the guideline
Provider behaviour and values	• Beliefs of providers (e.g. views about what should be provided based on religion) • Values (e.g. commitment to use of health standards) • Habits (e.g. practice according to traditional ways of doing things and expert knowledge of providers)
Support and supervision from managers	• Supervision • Monitoring of guideline implementation • Incentives created for guideline implementation
Resource availability: time and workforce	• Availability of trained providers • Time pressure • Required activities
Training	• Frequency of training • Content of training • Peer-learning

695

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Healthcare providers perspectives on use of the national guideline for family planning services in Amhara Region, Ethiopia: A qualitative study

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Healthcare providers perspectives on use of the national guideline for family planning services in Amhara Region, Ethiopia: A qualitative study

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Abstract

Objective: To explore healthcare providers' views on barriers to and facilitators of use of the national family planning (FP) guideline for FP services in Amhara Region, Ethiopia.

Design: Qualitative study

Setting: Nine health facilities including two hospitals, five health centres, and two health posts in Amhara region, Northwest Ethiopia.

Participants: Twenty-one healthcare providers working in the provision of FP services in Amhara region.

Primary and secondary outcome measures:

Semi-structured interviews were conducted to understand healthcare providers' views on barriers to and facilitators of the FP guideline use in the selected FP services.

Results: While the healthcare providers' views points to a few facilitators that promote use of the guideline, more barriers were identified. The barriers included: lack of knowledge about the guideline's existence, purpose and quality, healthcare providers' personal religious beliefs, reliance on prior knowledge and tradition rather than protocols and guidelines, lack of availability or insufficient access to the guideline, and inadequate training on how to use the guideline. Facilitators for the guideline use were ready access to the guideline, convenience and ease of implementation and incentives.

Conclusions: While development of the guideline is an important initiative by the Ethiopian government for improving quality of care in FP services, continued use of this resource by all healthcare providers requires planning to promote facilitating factors and address barriers to use of the FP guideline. Training that includes a discussion about healthcare providers' beliefs and traditional practices as well as other factors that reduce guideline use, and increasing the sufficient number of guideline copies available at the local level, as well as translation of the guideline into local language are important to support provision of quality care in FP services.

Strengths and limitations of this study

- Strength: This is the first qualitative study assessing barriers to and facilitators of national FP guideline use in Ethiopia.
- Strength: The study explored views of healthcare providers working in different types/levels of health facilities such as health posts, health centre, and hospitals.
- Limitation: the study was conducted with participants from urban health facilitates in one geographic region of Ethiopia only.
- Limitation: the use of a single transcriber and translator, however the lead investigator was careful not to impose his own perspectives about barriers/ facilitators of FP guideline use.

Introduction

Similar to other low income countries in Africa, Ethiopia has a high maternal mortality rate, with 412 deaths per 100,000 live births.[1] This compares with an average of 196 per 100,000 live births at a global level.[2] Ensuring that all women can easily access and use appropriate and effective family planning (FP) services is widely regarded as critical in reducing maternal mortality [3 4]. However, the rate of FP service utilisation remains low in Ethiopia, with only 35% of married women using FP services.[1]

Ensuring quality of care is critical in improving and maintaining high levels of FP services utilisation. [5-11] Developing evidence-based clinical practice guidelines and implementing those guidelines throughout the health system, is a key to building quality of care. [12-14] Clinical practice guidelines are "statements that include recommendations intended to optimize patient care that are informed by a systematic review of evidence and an assessment of the benefits and harms of alternative care options".[15p4] Studies conducted in Ethiopia and Kenya have shown that availability of FP guidelines is positively associated with improved quality of care in FP service delivery.[16 17] For example, Stanback et al.[17] showed that when FP guidelines are properly distributed to healthcare facilities offering FP services, the reliable presence of these guidelines helps to improve healthcare providers' sustained use of the guidelines and thereby the quality of FP service delivery. For guidelines to be effectively implemented and improve quality of care, they should be based on the findings of systematic reviews that include quality evidence; developed by a knowledgeable, multidisciplinary panel of experts and representatives from key affected groups, and consider important patient subgroups and patient preferences. [15 18]

To support the improvement of quality of care in FP services, the World Health Organization (WHO) has developed guidelines, including the medical eligibility criteria (MEC) for contraceptive use. [19 20] Informed by the MEC, several countries, including Ethiopia, have developed the national guideline for FP services. This guideline was first developed in 1996, and last updated in 2011, and is the only FP guideline available in Ethiopia. [21 22] A summary of the 2011 national FP guideline [22] considered in the present study is provided in Table 1. The guideline is intended to be used by policy makers and health professionals involved in the provision of FP services at all levels of the health system in Ethiopia.

A recent quantitative study assessing factors associated with quality of care in FP services in Ethiopia reports that less than half of the facilities (46%) had FP guidelines/protocols, suggesting inadequate dissemination and uptake of FP guidelines.[16] No study has explored factors influencing utilisation of the national FP guideline for FP services in Ethiopia. Understanding healthcare provider experiences of the national guideline for FP services can help inform initiatives to improve the guideline implementation and thus quality of care provision in Ethiopia. The aim of this study was to explore healthcare providers' views on the use of the FP guideline in Amhara Region, Ethiopia, focusing on barriers and facilitators.

Methods

Study design and setting

This study used in-depth interviews guided by a semi-structured interview guide for data collection. The study was conducted in two big cities- Bahir Dar city and Gondar city- located in Amhara region, Northwest Ethiopia between April and June 2017. Participants for the study were recruited from nine health facilities including two hospitals, five health centres, and two health posts. The Amhara region is the second largest of the 11 administration areas in Ethiopia, with a population of approximately 21 million, 23% of Ethiopia's total population. [23] The region has 19 hospitals, 796 health centres, and 3267 health posts. [24] FP services are provided in all the health facilities in this region. In hospitals, FP services are provided in gynecology departments by midwives, nurses, or doctors, and in health centres, through maternal and child health (MCH) departments by nurses, midwives, or health officers. Health Extension Workers provide FP services in health posts. The reporting of this study follows the guideline provided by the Standards for Reporting Qualitative Research (SRQR). [25] (see Supplementary file 1)

Participants

Before contacting the study participants, we selected health facilities purposively, to include three types of health facilities - hospitals, health centres, and health posts. In the selected health facilities, potential study participants were approached at staff meetings, where they were provided information about the study and requested to express their willingness to participate. Those staff who expressed willingness to be part of the study were contacted by telephone to further discuss the study, including the study objectives, potential risks to participants, other ethical issues, and to arrange a convenient time and place for the interview.

To be part of the study, potential participants had to be healthcare providers who had worked a minimum of six months providing FP services. This helped to explore healthcare providers' direct/real experiences on factors affecting use of FP guideline in FP services. While it was initially anticipated to include up to 15 participants, recruitment of participants was conducted until the interviewer perceived data saturation in that no new barrier or facilitator were identified. As a result, a total of 21 healthcare providers (18 female, 3 males) were interviewed (See Table 2 for further details on participant characteristics).

Data collection

Data were collected through face-to-face in-depth interviews in the local language (Amharic) by the lead author (GAT). In-depth interviews were used as this approach allows exploring individual experiences/views/perceptions of healthcare providers working in the provision of FP services. Unlike the focus group discussion, the findings in the in-depth interviews are not influenced by the views of other participants.[26] All except one of the interviews were audio-recorded. For the one interview in which the participant declined to give consent for audio-recording, notes were taken. The interview guide included questions inquiring about barriers and facilitators of guideline utilisation in FP services as well as questions on participant characteristics. The interview guide is available from the lead author.

Data management and analysis

The audio-recorded interviews and notes taken were translated and transcribed into English by the lead author and entered into NVivo 11™ for analysis. [27] Thematic analysis according to the approach described by Braun and Clarke [28] was employed. The epistemological framework for this analysis was essentialist/realist, aiming to understand and report the experiences, meaning, and reality of study participants regarding barriers and facilitators in using the FP guideline in the provisions of FP services. [28] Data analysis was led by GAT who first read and re-read the transcripts to familiarise himself with the data, and then systematically coded the data related to barriers and facilitators. GAT is a reproductive health researcher who has been working in family planning research in Ethiopia. His knowledge about the local culture, values and context of the study setting enhanced the research in terms of enabling probing questions during the interviews and appropriate interpretation of the data and identification of the barriers/facilitators. The co-authors, JSG, COL, MAM were involved in the data analysis by reading and coding a sample of three transcripts, and discussing the

emerging themes and sub-themes. JSG has knowledge of the context surrounding guidelines utilisation and healthcare delivery in resource-limited African settings which assists in the conceptualisation and designing of the study, data analysis and interpretation of the findings. COL and MAM are also well-experienced in qualitative research and helped in the conceptualisation and designing of the study, data analysis and interpretation of the findings. The coding was conducted inductively through an iterative process; with codes informed by the data rather than pre-existing frameworks. Disagreements and discrepancies around codes, themes, and sub-themes were resolved by consecutive discussions and reference to the original transcript document. Finally, the codes were grouped based on similarities into themes and sub-themes.

Ethical considerations

Ethical approvals were obtained from the Human Research Ethics Committee (HREC) at the University of Adelaide (Protocol # H-2017-023) and the Institutional Review Board (IRB) at the University of Gondar, Ethiopia (Protocol # O/V/P/RCS/05/562/2017). Informed written consent was obtained from each study participant before the start of the interviews.

Patient and public involvement

Patients or members of the public were not involved in the development, design or conduct of this study.

Results

Overall, six main barriers and facilitators relating to use of the national FP guideline for FP services were identified, summarised in Table 3.

Theme 1: Knowledge and access to the guideline

Healthcare providers' knowledge of and access to the FP guideline were identified as a key theme impacting use of the FP guideline in the study services. Lack of awareness about the FP guideline was perceived as a barrier preventing guideline use. In this regard, three participants reported that they were not aware of the existence of the national guideline for the provisions of FP services; as one provider said "*I have not heard about it [national family planning guideline]…" [In-depth Interviewee (IDI)*$_{14}$*]*.

Several other providers indicated that they were aware of the guideline, but did not understand its purpose adequately. They said that they perceived the guideline as 'training material/manual', only provided during training, rather than health standards to be used at their health facility. This view of the guideline was demonstrated when a participant described it as 'compilation of printed training materials' provided in FP trainings. Another participant said:

> *...it is because of the guideline… it is large…we got it from Ipas NGO… it was a collection [compilation] of training materials… laminated together in a book form [ID1$_{18}$].*

Other providers who indicated that they were aware of the guideline's existence, referred to inadequate knowledge about how to use the guideline: "*Since we did not understand on how to use it… we have not been using it [guideline] for so long…" [IDI$_2$].*

A lack of access to the guideline was described as not having the guideline available in the facility, insufficient copies of the guideline or the guideline not placed in a convenient location in the facility.

> *I think, this guideline has to be accessible to various rooms. We have only a copy. [IDI$_{19}$].*

> *We do not have family planning guideline. We just work by looking into what other providers do and by asking them if there are concerns that we are not sure. That is how we do. [IDI$_{11}$].*

> *We wish to use it, but we do not have it… that is the reason we are not using. [IDI$_1$].*

In some instances, where the facility provided copies of the FP guideline, the participants explained that copies of the guideline were often taken away or lost. In this regard, a midwife expressed his concern that students or someone else removes the guideline from the facility.

> *The hospital may prepare it or got it from somewhere else [other organizations]…but someone may put it at some place for a provider to access it easily. …and then a provider has accessed it for use but failed to put it back… and lost from the facility… that is my assumption. He [provider] just put [it] somewhere or may take it to his home and finally forget it… forgot to bring back. It may also mixed up with other documents and then it became a difficult job to find it for use. [IDI$_{15}$].*

Another participant described how some healthcare providers from the facility received copies of the guideline during training sessions, however left them in their homes, rather than using them in the facility.

> *I had been working in health centre… far from this town…small town. By that time, we [I and colleagues] had been provided the guideline at the training but we dropped it in our homes [instead of bringing it for use in the facility], we did not bring it to the facility. [IDI$_{12}$].*

Lack of easy access to copies of the guideline for immediate referral during services provision was mentioned as a barrier by some participants – "*One problem is that we are not putting the guideline in our nearby areas" [IDI$_{12}$].*

Several participants expressed that because of the large size of the guideline, they were not only unable to locate specific information in the text but also found it difficult to carry to outreach areas.

> *…it is somehow difficult to get the exact page where the information we are looking for is located [IDI$_2$].*

> *It is also difficult to bring the guideline to use in the villages along other stuff. It is heavy for us… we are also carrying our own stuff in the bag. Most of the time, we are forced not to take it with us [IDI$_{13}$].*

The guideline was identified as provided in English only, and this was perceived by some of the participants as a barrier to their use.

> *There might be some healthcare providers that could not easily understand English. For them, it is better to have Amharic version or guideline in both languages [Amharic and English] [IDI$_4$].*

Considering perception of facilitators of guideline utilisation, convenient access to the guideline, ease of use and the format of the guideline were referred by participants as important enablers. For example, a participant said that the FP guideline was conveniently available in the facilities, which made it easy to use.

> *The guideline is always available in our room, it is just located on the table, anyone who want to refer it can found easily [IDI$_8$].*

Moreover, a nurse from a health centre felt that passing the guideline to the next colleague when a provider is changing shifts or travelling to another area was helpful in improving use of the guideline.

> *I also pass the guideline for the next person if I am going to travel somewhere. That is what I think. I believe, following the guideline would help a provider to provide a proper counselling…which is really a key issue for a client and for providers to remind him to use the guideline. That is what I believe [IDI$_{21}$].*

Ensuring ease of use and its carrying convenience were also demonstrated as a facilitator for the use of the guideline. From a provider's perspective, several participants described how they were inclined to use the WHO eligibility criteria rather than the FP guideline as the former was easier to get the intended information and being smaller in size made it lighter to carry on when they travelled to villages for outreach services.

> *For example, the WHO guideline is very simple and easy. Just you need to put on the table and then look at the notes inside the circle while national guideline is a book and it needs [us] to search for a page. So making it easier to use is good for providers [IDI$_{3}$].*

In line with this, some of the participants suggested that for the guideline to be easier to use by the healthcare providers, different colours and pictures should be used within the guideline.

> *… it would also be good if they use different colours…green, red, pink to denote which methods should not be taken for some diseases. If you see red, you do not give…but for green marked one… you can do….you know, making it something like the WHO eligibility criteria [IDI$_{12}$].*

> *I need a guideline having different pictures [figures]… do you know what I mean, for example ….a guideline with a U-shape pictures [to indicate] for five-year family planning [IUCD]. …sometimes you will forget what you have been told in training… it will not stay long after a year or two… it will be forgotten. The guideline shall also have a clear indications on landmarks [anatomical] for the measurement before inserting the contraceptive methods [IDI$_{9}$].*

Additionally, the participants indicated providing copies of the guideline in the local language can improve its utilisation.

But, I prefer to have an Amharic version …and in that case, I can go and read the Amharic version if the English version is not clear for me [IDI$_{15}$]

Theme 2: Quality of the guideline

Another theme arising from the interviews related to the national guideline's scope, content and currency (being up to date) which the FP information contained.

The participants reported that the guideline included a large number of health issues beyond FP, making it difficult to navigate.

We have a guideline that included everything in it. It also deals about malaria… HIV… sanitation, nutrition besides family planning for families in the community… It was not possible to easily get the information about family planning services in it [guideline] [IDI$_{13}$].

Another barrier to the use of the FP guideline was that the guideline was often considered out of date and not covering the latest contraceptive methods. A nurse from a health centre expressed:

Plus, it [the current guideline] did not include information about the newly developed and available methods… there is a new implant method which is called "Implanon NXT". This method is now under distribution for health facilities. This method has its own insertion procedure, but you could not get it in the current version of the guideline [IDI$_{17}$].

Finally, the participants informed that the guideline did not provide the important information to assist FP providers to undertake their work effectively. For example, no guidance was provided on dealing with community misconceptions about contraception.

In the guideline… I found there is lacking about the common misconceptions [about the family planning methods] in the community… if you know them... you will be ready to address during the counselling session… sometimes, you will face with emergency questions in such a way that… "does it lead to this or that?"… if these information are available in the guideline, a provider will be aware of them and getting ready to handle [answer] them [IDI$_{17}$].

Theme 3: Provider behaviour, values and beliefs

More than half of the participants described that many healthcare providers tend to rely on their prior knowledge and practices learnt throughout their career rather than using the guideline. The participants felt that the providers keep doing things the usual way, as in the past, even after attending FP trainings on the guideline implementation.

> *…health professionals are providing family planning services just by tradition…without updating him/herself [by reading guideline]. Especially…the so-called 'chronic staff'…those staff who upgraded themselves gradually from health assistant to junior nurse and then to [diploma]nurse…and then to bachelor degree nurse…they do not want to be guided by guideline…not at all…they just follow what they have been doing for 10…20 or more years in the past [IDI$_{21}$].*

Some of the participants who had worked for many years in FP services continue to rely on their prior knowledge and experience rather than referring to the guideline.

> *We are working here by our experiences. I have been working here for long time…so I do not use anything for providing family planning services (IDI$_{1}$).*

It was also described by some participants that a lack of commitment to use health standards by the healthcare providers influenced their use of the FP guideline.

> *Additionally [another reason for not using guideline]…it is because of carelessness of the healthcare provider… providing family planning services just by tradition…without updating himself. [IDI$_{21}$]*

> *…those providers who got the training are aware of that fact… that they should use the guideline…but they are not following[using] the laws or legislations [guideline]… there is ignorance … [IDI$_{12}$].*

Other participants expressed the view that some providers perceive themselves as having sufficient knowledge and a belief that they can provide services without the need of any guideline. For example, a provider said "We thought…we know everything in the document [guideline]" [IDI$_{14}$].

For some of the participants, the habit of not reading any material provided was a barrier. One of the participants mentioned that "*Most of our people [including providers] do not have a good culture [habit] of reading books… let alone family planning guideline. [IDI$_{16}$].*

It was also noted that some providers were not comfortable reading the guideline in front of the clients. They would rather rely on their personal experiences.

> *When you have clients sitting in front of you, it is boring to do [refer guideline] that. That is why I prefer providing the services from my experiences [IDI$_4$]*

One of the participants described his personal change in terms of commencing to use FP guideline.

> *I am using it [guideline] rather than following the traditional [practice based on prior knowledge]... I tried to abandon [change] the old tradition to work without referring to family planning guideline… [IDI$_{16}$].*

Another participant presented the view that the religious beliefs of some providers were a barrier to utilisation of the FP guideline:

> *…quite a number of providers do have a negative attitude for family planning and safe abortion. They consider it as a religiously prohibited thing…they always associate it with religion…and they do not accept it. Overall, I can say, their utilisation of the guideline is limited. [ID1$_{16}$]*

The same participant described how in some instances providers' motivation to attend FP related training was the provision of per-diems rather than obtaining knowledge about the FP services and learn about the guideline to support FP services.

> *Many providers are going to the training…not just for learning new knowledge on it [family planning services and use of guideline], it is rather to get the per-diems during the training…They do not seem to provide the [family planning] services properly using the guideline…we are observing that every time [IDI$_{16}$].*

Theme 4: Manager support and supervision

Another theme arising from the interviews concerns the role of supervisors, including district managers and staff from non-governmental organisation (NGO). One midwife said that supervisors' lack of emphasis on the guideline when monitoring service delivery was an issue. More particularly, the midwife participant from a health centre expressed the view that: "[when healthcare managers from the district and regional health bureau visited their facility] *no one has checked whether we have been using it [guideline] or not" [IDI$_{19}$].*

Another participant reported that some healthcare managers were not concerned about availability or use of the guideline.

> *When they come to us they are asking us about the drugs, and contraceptive methods, vaccinations… They are not asking about the guideline or if we use them or not. They are always asking on the numbers on the report... for example they ask us, "why only few people are getting family planning services in a certain month" [IDI$_{14}$].*

However, some of the participants said that support by district managers and NGO staff was available, and that availability of this support served as a facilitator to use of the FP guideline.

> *We do have NGO partners who are coming regularly to check our services provisions, availability of materials and contraceptive methods. They also checked the presence of family planning guideline [IDI$_{17}$].*

Creating a culture within the facility where the guideline was seen as core to their service provision was suggested by a number of participants as a facilitator. *If one needs providers to use guideline, encouragement is necessary… [IDI$_{6}$].*

Theme 5: Resource availability: time and workforce

Resource related issues such as lack of time, shortage of trained providers, and high workload were expressed as barriers to using FP guideline. Several of the participants reported that a high client load interferes with using the guideline. The participants referred to long queues of clients waiting outside of the clinics to receive FP services, which made referring to the guideline during consultations difficult. In addition, participants said that limited time available for each client meant that some providers prioritised using the 'consultation time' to counsel the client based on what they already know rather than using the guideline. In one participant's words: "*We do not have time… in order to read a text [guideline], really… you should first get sufficient time" [IDI$_{13}$].*

Additionally, lack of appropriately trained staff added to the pressure on the existing staff and so taking time to refer to the guideline was considered a barrier to dealing with patient numbers. For example, a participant stated:

> *In that case [in the absence of trained providers], they [untrained providers] may just provide only counselling to them [clients] and appoint for myself or other trained provider to see them when we get back… these providers are not referring to the document*

[guideline]. In the facility, we do have only two trained providers, myself and another midwife [IDI$_8$]

Another area of concern for one participant was the facilities' inability to retain those staff who had been provided with training related to FP services and guideline:

There were many providers who have got the training but they moved to other places from our facility for different reasons…there is a lot of providers' turnover here...that is a big challenge [IDI$_{17}$].

According to a health extension worker participant, it was difficult to use guideline during provision of FP services because providers were required to provide a number of other healthcare services along with FP services, to be involved with various meetings, and to work in outreach activities in the local community.

We do have meetings all the time, we should give counselling for the clients, we should also need to report to district managers, and health centre… we are not in the office to read available documents, usually in the morning time "we are always out" [IDI$_{13}$].

Another nurse participant explained that working on a number of tasks that are not co-located in one room but offered by a sole provider was also seen as a barrier to guideline use. In her words:

…if a midwife is assigned in one room, there is no reason that she does not use the guideline properly. But, this will not happen here… we are going to antenatal, postnatal care, etc… Sometimes, we are rushing to reach the clients coming for different services. [IDI$_{15}$].

Theme 6: Training

Providers' lack of or inadequate training on the contents of the FP guideline was described as a barrier to guideline use. For example, one participant mentioned that: "*If you are not trained you cannot use the guideline" [IDI$_3$].* Other providers expressed:

I took the training….it was long time ago… I took it in 2005E.C (just before 4 years [IDI$_8$]

Once we have been provided a training, nobody remembers you for refreshment training… [IDI$_2$]

In contrast, other participants referred to provision of training that targets the FP guideline as a facilitator; for example one participant explained that discussing the contents of the guideline during FP training provision may help to motivate providers to use the guideline.

> *They [trainers] have highlighted some concepts in the guideline using PowerPoint presentation. I guess, this can help providers to motivate for using them while getting back to their facilities [IDI$_{16}$].*

As part of the capacity building activity, the participants described that being a FP trainer has helped them to improve their use of guideline.

> *...our facility is one of the practical attachment location for family planning trainings. I am also part of the trainers' panel for the long term contraceptive methods. ...the guideline are always in my hand for me to use... I am updating myself every time...maybe... I read the book in weekly or monthly basis. I also ask other friends [colleagues] to use it [IDI$_{16}$].*

Some participants acknowledged peer-learning from colleagues and identified this as a facilitator. For example, a participant related that she and her colleagues did not use the guideline until she attended an induction training on how to use the guideline and share the knowledge to her colleagues.

> *...After I received the orientation [induction] on how to use it, I have also informed [on how to use it] to all my staff and now we are using it in the same language [fashion]. The guideline had been in our facility for three....or... four months without using it [IDI$_2$].*

Discussion

This is the first study conducted to understand healthcare providers' perspectives on use of the national guideline developed to support standardised and quality care in FP services in Ethiopia. While the healthcare providers' views point to both barriers and facilitators affecting FP guideline use in FP services, more factors related to barriers were identified and described than facilitators. Barriers that exist, from healthcare providers' perspective, are: inadequate knowledge about the purpose of the guideline, irrelevance of the guideline for some specific and practical needs of the healthcare providers, personal factors such as beliefs and traditions, and organisational factors such as inadequate resources including time and staff, lack of supervision and support.

Our findings that healthcare provider's lack of knowledge about the existence of the FP guideline and unavailability of a copy of for healthcare providers support our previous study which found more than half of the health facilities in Ethiopia do not have the FP guideline available. [16] Lack of availability of the guideline in health facilities points to a concern about lack of planning to distribute such resource to health facilities for use by healthcare providers. [29] Inadequate planning to effectively distribute guidelines and protocols is a persistent concern across other countries as well; for example, a 2012 Ugandan study, found that more than 60% of clinical guidelines developed by the government were not available at the service delivery level, despite that these resources were available at national offices level. [30]

When the guideline was available in health facilities, other issues were identified as impeding their use, including language and format of guidelines. Other studies have also identified these features of guidelines as factors that negatively impact utilisation. [31-33]

The present study also found that a lack of information in the guideline about common community misconceptions relating to FP methods and lack of information about newly-developed contraceptive methods such as *Implanon NXT* impacted effective use of the guideline. In Ethiopia, the current FP guideline was intended to serve various stakeholders ranging from policy makers at the national level to FP providers at the services delivery point. As a result, instead of providing specific and practical information to assist frontline healthcare providers for effective counselling and contraceptive provision, the guideline provides relatively general information about FP services. For example, the current version of the national FP guideline [22] does not provide information about how to use contraceptive methods, and indications/contraindications. This finding suggests that at the health facility level, the guideline needs to include specific information for the healthcare providers to use to provide effective FP services. The guideline developed by the Ministry of Public Health and Sanitation of Kenya, for example, addressed this issue and provided current and up to date information on FP methods.[34] The guideline developed in Kenya cover the advantages and disadvantages of FP methods, medical eligibility criteria, management of common side effects, and how to address common community misperceptions about FP methods.

Healthcare providers continuing to apply, even after receiving guidelines and training, the procedures they have been applying in the past is a well-known problem in the healthcare sector, not only in developing countries, but throughout the world.[35] [36] Therefore, our study findings that providers perceive traditional ways of doing things as a barrier to guideline use

is not surprising. This problem may be probably due, in part, to low levels of commitment on the part of providers to implement best practices learned during technical training. A study conducted in rural India found a clear gap between what the providers 'know' about the standard practices to be provided/followed for patients and what they 'do' in their routine practice during the provision of a healthcare services. [37] Therefore, while our findings suggest that improving healthcare providers' use of FP guideline will require increased healthcare provider knowledge and skill, in light of emerging literature on provider motivation suggesting that these efforts be combined with regular supportive supervision and incentive mechanisms to motivate healthcare providers.

This study informed about organisational factors including the role of management support for healthcare providers to use the guideline and insufficient health workforce. Evidence shows that managerial support is important to improve use of clinical practice guidelines. [38-40] This alerts to the need for a focus on support and supervision visits by healthcare services managers at the regional level and at the facility level. Lack of sufficient health workforce was identified as a main barrier for guidelines use. A previous study conducted in four low-income countries, Uganda, Ethiopia, Tanzania and Myanmar, showed that shortage of health workforce was one of the barriers impeding guidelines implementation in the provision of maternal healthcare services across all these countries. [41] Participants in our study also suggested that high staff turnover exacerbated the staff shortage problem in health facilities. Our study has also pointed out that time pressure due to client overload and multiple tasks was impeding guideline use in FP services. Several studies reported that time constraint was a barrier for implementing clinical practice guidelines. [42-44]

Healthcare providers in our study highlighted the importance of training to enhance skills for effective use of guidelines and in turn provide quality of care in FP services. The need for training and skill enhancement is noted in many other studies, across a range of health issues and healthcare services provision. For example, multi-country studies, undertaken in low-and middle-income countries such as Uganda, Malawi, Tanzania and Ethiopia conducted to identify the barriers and facilitators for implementing various healthcare services guidelines including maternal healthcare services, [29 41] and mental healthcare services[45] showed that lack of or insufficient training was a barrier for implementing clinical guidelines.

Considering limitations of this study, the first study was conducted with participants from only urban health facilitates in one geographic region of Ethiopia. Hence, as expected in

qualitative studies, the results may not be representative of rural health facilities and other regions of Ethiopia. However, we continued interviewing until data saturation, and therefore the barriers and facilitating factors that we identified may be similar in other facilities, particularly within the Amhara region. In fact, as facilities being located in rural and remote areas pose additional challenges in terms of adequate human resource, training and access to resources such as guideline, we believe that the barriers highlighted by the study participants in Amhara region may be even more pronounced in rural and remote areas. Second, while the lead author (GAT) has been working in FP research in Ethiopia, there might be a potential bias in the research. However, the lead author was careful not to impose his own perspectives about barriers/ facilitators of FP guideline use during data collection and analysis. As the co-authors, JSG, COL and AMM, have no experience in Ethiopia and they have little or no bias in the research. They were also careful not to impose their own perspectives about barriers/ facilitators of FP guideline use during data collection and analysis. The use of a single transcriber and translator limited our ability to conduct a quality assurance of transcript translations.

Policy and research implications

The findings of this study have important policy and research implications. While the Ethiopian government took an important initiative in developing the FP guideline, its utilisation could be improved by implementing the following steps: (1) The guideline should be translated into the local language and ensure that it is distributed to health facilities; (2) Provision of additional training for healthcare providers to improve their knowledge about the guideline is required. The trainings should focus more on encouraging/incentivising providers to use the guideline and to build their confidence in referring to the guideline in front of the clients. It should also be emphasised that the guideline is not only to be used as a training material but also are actually a reference guide to be used continuously throughout their career; (3) Steps need to be taken to ensure that the guideline is easily available, and that providers and managers have the time to participate in relevant trainings, as well as to deliver the standard and range of services set out in the guideline. 4) The current national FP guideline is out-of-date in terms of addressing new FP methods and technologies, so the government should consider revising this guideline. During the guideline revision, it would be important to include more practical information required by healthcare providers which includes how to use each FP method, advantages and disadvantages, contraindications, side

effects, and common community misconceptions. It would also be useful for the guideline to be more concise and simpler to carry, transfer and share and have better indexed content so that providers can find what they need to know more quickly, and with more up to date information so that providers do not fear they are acting on outdated knowledge. 5) It is also necessary to establish a better system for managers to provide effective monitoring and supervision of providers and to use the opportunity to check the availability guideline in the facilities and if the providers are properly implementing the guideline.

Further studies examining healthcare providers' perspectives of guideline use involving participants from other regions in Ethiopia may be required to build a comprehensive understanding of barriers and facilitators, and how to support utilisation of the FP guideline throughout the health system. While some of the barriers identified in this study such as lack of managerial support and training could be better explored by including healthcare managers, further study targeting healthcare managers is recommended to provide additional insight on these factors.

Conclusion

Healthcare provider perspectives confirmed that a range of barriers contribute to lack of use of the guideline in FP services in some health facilities in Ethiopia. The barriers observed included lack of knowledge about the existence and purpose of the guideline, lack of sufficient copies of the guideline, providers' personal religious beliefs, a desire amongst providers to deliver services based on prior knowledge and tradition rather than protocols and guideline, insufficient time (resource issues), lack of knowledge about the guideline and inadequate training on how to use them. Ensuring that the guideline was easy to access and implement and incentives for their use (e.g. recognition) were the main facilitators indented by providers in this qualitative study. While the Federal Ministry of Health of Ethiopia needs to work on revising the current FP guideline, strategies must be designed to properly distribute the guideline to health facilities providing FP services. Future FP guideline development needs to focus on providing concise, easy to carry guideline with a more practical information for healthcare providers.

Data sharing statement

All the required data used in the research is included in the text.

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Contributors

GAT contributed to the study concept and design, acquisition, data collection, translation and transcription, analysis and interpretation of data; drafting and critical revision of the manuscript. JSG, COL, MAM contributed to the study concept and design, analysis and interpretation of data as well as the critical revision of the manuscript. All the authors read and approved the manuscript.

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Competing interest None

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Table 1. Summary of the 2011 national guideline for family planning services in Ethiopia [22]

Developed by:	A panel of experts from: • Government (Ministry of Health of Health) • Addis Ababa University • Non-governmental organisations working in Ethiopia (DKT, EngenderHealth, FHI, Ipas, WHO, Marie Stopes International, IFHP, UNFPA, Venture Strategy, JSI/Deliver)
Intended users:	• Policy makers • Health managers • FP program coordinators and managers at all levels • All cadres of healthcare providers and instructors at health training institutions • FP researchers, monitors and evaluators • Donors, other stakeholders and implementers of FP programs in government, non-government and private sectors
Objectives:	• Guide FP programmers and implementers at government, non-government, bilateral and multilateral organisations, private sector as well as charity and civic institutions • Guide to all cadres of healthcare providers directly or indirectly involved in the provision of FP services including pre-service and in-service training • Set standards for FP programs and services • Standardise various components of FP services at all levels • Expand and improve quality of FP services to be offered • Direct integration of FP services with other reproductive health services, and • Serve as a general directive and management tool.
Main content:	• Goals and objectives of the Family Planning Guideline • FP Services* • FP Service Strategies • Services for Clients with Special Needs • Advocacy communications and social mobilisation • Contraceptive supplies and management • Quality of Care in Family Planning • Health Management Information System

Source: Ministry of Health. National Guideline for Family Planning Services in Ethiopia. Addis Ababa: Ministry of Health, 2011.

**This section describes the range of FP services provided in the health facilities. The services specified are counselling, provision of contraceptive methods, screening services for sexual transmitted infections, HIV and reproductive organ cancers, prevention and management of fertility treatment*

FP- Family Planning FHI- Family Health International IFHP- Integrated Family Health Program

JSI- John Snow Incorporation UNFPA- United Nations Fund for Population Agency WHO- World Health Organization

703 Table 2. Characteristics of participants

Characteristics	Number	Percent
Sex		
Female	18	85.7
Male	3	14.3
Age (years)		
25-30	10	47.6
>30	11	52.4
Mean age		30 (SD=4.9)
Range		Min=25, max=49
Profession		
HEW	4	19.0
Midwife	10	47.6
Nurse	7	33.3
Highest qualification		
BSc	8	38.1
Diploma	13	61.9
Facility in which provider provided FP services		
Ayer-marefia Health Post	2	9.5
Azezo Health Centre	3	14.3
Belay Zeleke Health Post	2	9.5
Felege-hiwot Hospital	2	9.5
Gebriel Health centre	2	9.5
Gondar Health centre	1	4.8
Han Health Centre	2	9.5
Maraki Health Centre	2	9.5
University of Gondar Hospital	5	23.8
Types of facility from which participants were recruited		
Health Centre	10	47.6
Hospital	7	33.3
Health Post	4	19.0
Total number of work experience in the provision of FP services		
Mean	2.85 (SD=1.7), Min=1, Max=7	

Table 3. Summary of healthcare providers perceptions of factors (barriers and facilitators) related to implementation of FP guideline

Theme	Sub-themes
Knowledge and access	• Awareness of guideline existence • Understanding of guideline purpose • Dissemination / availability of the guideline • Size of the guideline • Language and layout of the guideline
Quality of the guideline	• Scope of the guideline • Content of the guideline
Provider behaviour and values	• Beliefs of providers (e.g. views about what should be provided based on religion) • Values (e.g. commitment to use of health standards) • Habits (e.g. practice according to traditional ways of doing things and expert knowledge of providers)
Support and supervision from managers	• Supervision • Monitoring of guideline implementation • Incentives created for guideline implementation
Resource availability: time and workforce	• Availability of trained providers • Time pressure • Required activities
Training	• Frequency of training • Content of training • Peer-learning

Standards for Reporting Qualitative Research (SRQR)*

http://www.equator-network.org/reporting-guidelines/srqr/

	Page/line no(s).
Title and abstract	
Title - Concise description of the nature and topic of the study Identifying the study as qualitative or indicating the approach (e.g., ethnography, grounded theory) or data collection methods (e.g., interview, focus group) is recommended	Page 1
Abstract - Summary of key elements of the study using the abstract format of the intended publication; typically includes background, purpose, methods, results, and conclusions	Page 2
Introduction	
Problem formulation - Description and significance of the problem/phenomenon studied; review of relevant theory and empirical work; problem statement	Pages 4-5
Purpose or research question - Purpose of the study and specific objectives or questions	Page 5
Methods	
Qualitative approach and research paradigm - Qualitative approach (e.g., ethnography, grounded theory, case study, phenomenology, narrative research) and guiding theory if appropriate; identifying the research paradigm (e.g., postpositivist, constructivist/ interpretivist) is also recommended; rationale**	Page 6
Researcher characteristics and reflexivity - Researchers' characteristics that may influence the research, including personal attributes, qualifications/experience, relationship with participants, assumptions, and/or presuppositions; potential or actual interaction between researchers' characteristics and the research questions, approach, methods, results, and/or transferability	Page 6
Context - Setting/site and salient contextual factors; rationale**	Page 5
Sampling strategy - How and why research participants, documents, or events were selected; criteria for deciding when no further sampling was necessary (e.g., sampling saturation); rationale**	Pages 5-6
Ethical issues pertaining to human subjects - Documentation of approval by an appropriate ethics review board and participant consent, or explanation for lack thereof; other confidentiality and data security issues	Page 7
Data collection methods - Types of data collected; details of data collection procedures including (as appropriate) start and stop dates of data collection and analysis, iterative process, triangulation of sources/methods, and modification of procedures in response to evolving study findings; rationale**	Page 6

Data collection instruments and technologies - Description of instruments (e.g., interview guides, questionnaires) and devices (e.g., audio recorders) used for data collection; if/how the instrument(s) changed over the course of the study	Page 6
Units of study - Number and relevant characteristics of participants, documents, or events included in the study; level of participation (could be reported in results)	Page 5 and Table 2
Data processing - Methods for processing data prior to and during analysis, including transcription, data entry, data management and security, verification of data integrity, data coding, and anonymization/de-identification of excerpts	Pages 6-7
Data analysis - Process by which inferences, themes, etc., were identified and developed, including the researchers involved in data analysis; usually references a specific paradigm or approach; rationale**	Pages 6-7
Techniques to enhance trustworthiness - Techniques to enhance trustworthiness and credibility of data analysis (e.g., member checking, audit trail, triangulation); rationale**	Pages 6-7

Results/findings

Synthesis and interpretation - Main findings (e.g., interpretations, inferences, and themes); might include development of a theory or model, or integration with prior research or theory	Pages 7-16
Links to empirical data - Evidence (e.g., quotes, field notes, text excerpts, photographs) to substantiate analytic findings	Pages 7-16

Discussion

Integration with prior work, implications, transferability, and contribution(s) to the field - Short summary of main findings; explanation of how findings and conclusions connect to, support, elaborate on, or challenge conclusions of earlier scholarship; discussion of scope of application/generalizability; identification of unique contribution(s) to scholarship in a discipline or field	Pages 16-18
Limitations - Trustworthiness and limitations of findings	Pages 18-19

Other

Conflicts of interest - Potential sources of influence or perceived influence on study conduct and conclusions; how these were managed	Page 21
Funding - Sources of funding and other support; role of funders in data collection, interpretation, and reporting	Page 21

*The authors created the SRQR by searching the literature to identify guidelines, reporting standards, and critical appraisal criteria for qualitative research; reviewing the reference lists of retrieved sources; and contacting experts to gain feedback. The SRQR aims to improve the transparency of all aspects of qualitative research by providing clear standards for reporting qualitative research.

**The rationale should briefly discuss the justification for choosing that theory, approach, method, or technique rather than other options available, the assumptions and limitations implicit in those choices, and how those choices influence study conclusions and transferability. As appropriate, the rationale for several items might be discussed together.

Reference:

O'Brien BC, Harris IB, Beckman TJ, Reed DA, Cook DA. **Standards for reporting qualitative research: a synthesis of recommendations.** *Academic Medicine*, Vol. 89, No. 9 / Sept 2014
DOI: 10.1097/ACM.0000000000000388