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# Reasons and prevention strategies of unintended pregnancy in Addis Ababa, Ethiopia: a phenomenological qualitative study

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## ABSTRACT

**Objectives** To explore the reasons for unintended pregnancy and effective prevention measures from the perspectives of women and healthcare providers in Addis Ababa, Ethiopia.

**Design** Phenomenological qualitative study.

**Setting and participants** This study was conducted at three public health facilities found in Addis Ababa, Ethiopia. Women with unintended pregnancies and healthcare providers currently working in maternal health services were purposively recruited for in-depth interviews. Twenty in-depth interviews were conducted until data saturation was achieved. Data were analysed using thematic analysis.

**Results** Seven themes emerged from the transcribed interview data. These include: Personal characteristics (negligence; lower pregnancy expectation), family influence (fear of family), sociocultural and economic influence (stigma and discrimination), healthcare provider influence (disrespectful and abusive approach; disregard for women's contraceptive choice), preconception thoughts and behaviours (unprotected early sexual practice; myths and misunderstanding), lack of access to quality family planning services (lack of trained contraceptive counsellor, inappropriate contraceptive use), and preventive strategies for unintended pregnancy (comprehensive sexual education; sexual and reproductive health and rights service integration)

**Conclusions** This study identified multilevel reasons for unintended pregnancy from the perspective of the participants. Participants shared their views on preventive measures for unintended pregnancy, including comprehensive sexual education, service integration and male-inclusive contraceptive counselling. This study highlights the need to improve sexual and reproductive health services by shedding light on the viewpoints and experiences of women and healthcare providers.

## STRENGTHS AND LIMITATIONS OF THIS STUDY

⇒ Representation of participants from diverse backgrounds and experiences.
⇒ The use of the phenomenological approach enriched the evidence generated from the lived experiences of participants.
⇒ Various levels of reasons, that cannot be identified via the use of quantitative study design and statistical approaches from both women's and healthcare providers' perspectives, were explored.
⇒ The use of a qualitative method may make the findings not generalisable and the relative importance of each reason may be difficult to determine.
⇒ Participants from rural settings and women's husbands/partners, who might express additional views, were not included.

## INTRODUCTION

Unintended pregnancy is a pregnancy that is either unwanted or mistimed. A pregnancy that occurred when no children were desired is referred to as unwanted, while a pregnancy that occurred earlier than desired is referred to as mistimed.[1] According to a recent estimate, 121 million unintended pregnancies occurred between 2015 and 2019, which indicates that unintended pregnancy remains a significant global public health risk.[2]

Notably, there are significant regional and national variations in the prevalence of unintended pregnancy.[3] The burden of unintended pregnancy is 36% higher in developing nations than in industrialised countries. Of the 53.8 million pregnancies that occurred in Africa in 2012, 35% were unintended. Moreover, over 14 million unintended pregnancies are recorded each year in sub-Saharan Africa.[4] In Ethiopia, the magnitude of unintended pregnancy remains high, ranging from 30% to 41.5%.[5–7]According to statistics, single women, teenage girls and women over 40 years are more likely to experience an unintended pregnancy than married women and those between the ages of 20 years and 39 years.[3] This may be due to their increased risk of unprotected sexual activity as well as their lack of information and access to contraceptives.

Addressing unintended pregnancy is essential: due to its detrimental impacts, which include increased risk of maternal depression

and parenting stress,[8] higher risk of preterm delivery,[9] higher rates of maternal, neonatal and infant mortality,[10] adverse birth outcomes,[11] and lower rates of breast feeding.[12] Similarly, 13% of maternal death is attributed to unintended pregnancy due to its increased risk of unsafe abortion.[13] Unintended pregnancy is also associated with delayed initiation of antenatal care (ANC),[14] and higher risks of preterm delivery.[9] More so, unintended pregnancy increases the risk of maternal complications such as pre-eclampsia and postpartum haemorrhage,[15] as well as child malnutrition.[10]

Ensuring adequate access to effective contraception and empowering women to make their own reproductive decisions are the most important ways of preventing unintended pregnancies.[16 17] Despite the critical role that modern contraceptives play in preventing unintended pregnancies, only 28.1%[18] of Ethiopian women use them, and the rate of unintended pregnancy in the nation remains high.[19]

To prevent unintended pregnancies, it is essential to identify risk factors. Prior quantitative studies conducted in Ethiopia and other developing nations have identified the numerical factors that contribute to unintended pregnancy.[3 6 20–24] These factors included women's age, marital status, educational status, parity, region and history of contraceptive use. However, considering the complex nature of factors that affect unintended pregnancy, qualitative studies exploring the real-world experiences of women and healthcare providers are vital to gain in-depth knowledge about the actual reasons for unintended pregnancy as well as to design focused interventions. To our knowledge, no qualitative studies in Ethiopia have explored the reasons and perceived preventive strategies for unintended pregnancy from the perspectives of women and healthcare providers. Therefore, this study aimed to explore the reasons and preventive measures for unintended pregnancy in Addis Ababa, Ethiopia based on women's and healthcare providers' perspectives.

## METHODS

### Research approach and research paradigm

A qualitative research design using a phenomenological approach was used to understand the views and descriptions of the events from the lived experiences of individuals.[25] Based on preliminary interactions with the research participants, this method was also helpful in defining the major topics and providing an interview guide for data collection.

### The research context

The study was conducted in three governmental health facilities in Addis Ababa, Ethiopia from 12 March 2022 to 24 April 2022. The health facilities were St. Paul's Hospital Millennium Medical College, Abebech Gobena Maternity Hospital and Teklehimanot Health Center. The study sites were selected purposefully because of their excellence and focus on sexual and reproductive health (SRH) services, including managing unintended pregnancy. This focus was crucial to obtaining sufficient interviewees who met the selection criteria during the study period.

### Researcher characteristics and reflexivity

The principal investigator and three research assistants conducted interviews. Two of the research assistants were public health specialists with a master's degree in reproductive health, and the third was a midwife with a master's degree in clinical midwifery. All three research assistants (two female and one male) had previous experience conducting in-depth interviews and qualitative research. Before data collection began, all researchers received a 1 day refresher training to facilitate and conduct interviews, audio recording, field note-taking and data transcription. The participants and researchers did not know each other at a personal or professional level before the interviews.

### Sampling strategy

The study participants were women who were unintentionally pregnant and visited the selected health facilities for maternal health services. The other participants were healthcare providers (doctors, midwives and nurses) working on maternal health services at the selected health facilities during the data collection period.

In this study, unintended pregnancy was defined as a pregnancy that was either unwanted or mistimed. An unwanted pregnancy is one that occurs when no children are desired, while a mistimed pregnancy is one that occurs earlier than desired.[1] Pregnant women who came to the selected health facilities for maternal health services (ANC, skilled delivery and safe abortion care) during the study period were screened for unintended pregnancy by asking them the question, 'Was the current pregnancy unintended at the time of conception?' Those who answered 'yes' to this question and agreed to sign an informed consent form were eligible to participate in the study.

In addition, healthcare providers who were currently working on maternal health services in the selected health facilities and had more than 6 months of work experience in the area were also eligible to participate in the study. The study participants (women and healthcare providers) were selected purposefully using purposive sampling,[26] which is the preferred sampling method for selecting individuals who are knowledgeable or experienced about a given phenomenon.[27] We used maximum variation purposive sampling to gain insight from diverse background of the participants.[28] To obtain a diverse range of experiences and exposures to unintended pregnancy, variations in the women's background characteristics, such as age, occupation status (employed, student, housewife), social status (married/in a relationship, single, divorced) and educational status, were considered. Similarly, variations in healthcare providers' professional backgrounds, years of experience in maternal health

services (ANC, skilled delivery, postnatal care, family planning and safe abortion care) and qualifications were considered to obtain diverse insights into unintended pregnancies.

A total of 20 participants (10 women and 10 healthcare providers) were interviewed. The sample size was determined by data saturation, which means that the study continued until no new information was obtained from the interviews.[29] All study participants were approached face to face, and none refused to participate.

### Data collection methods, instruments and techniques

An in-depth interview guide was prepared by the researchers after a thorough review of the literature and based on their clinical knowledge and research experience (online supplemental tables 1 and 2). The guide contained open-ended questions that helped explore the various reasons for unintended pregnancy and perceived preventive strategies from the perspectives of women and healthcare providers. An item-objective congruence index and expert consultation were used to validate the guide. The interviews were conducted face to face using a semistructured interview guide[30] after the eligible participants provided informed consent. All interviews were audio-recorded with the participant's consent. Each interview lasted for an average of 30–45 min. The interviews were conducted in Amharic, and the quotations were translated into English by professional translators who were not part of the research team using the forward-backward method.[31]

The data were collected in a private room at the study site. Data collection ceased after saturation was reached. Data saturation was reached when participants' responses began to repeat or when no new information was forthcoming. However, two further interviews were conducted after data saturation was reached to ensure that no important information was missed and quality of the data collected was guaranteed.

### Data processing and analysis

All the interviews were audio-recorded and transcribed verbatim by a professional transcriber. The researchers (AZY, OOO and AWY) independently read the transcripts multiple times to obtain an in-depth understanding of the meaning of the content. The data were analysed using a thematic analysis method,[32 33] which involves six steps: familiarisation with the data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the report. The data analysis method was selected based on two main criteria: the research question and the nature of the data. A thematic method of analysis was chosen because it met the above criteria.[32 33] Qualitative data analysis was performed using ATLAS.ti V.9 software.

### Techniques to enhance trustworthiness

The trustworthiness of the findings was determined using criteria of credibility, dependability, confirmability and transferability.[34] Semistructured in-depth interviews with a qualified qualitative interviewer were used to build credibility, and a peer debriefing approach was used to validate the data.[35] Additionally, the authors of this study (AZY, OOO and AWY) independently analysed the data from the transcripts. The research team then discussed the findings and used a consensus technique to resolve any disagreements.[36] To address transferability, we relied on the diversity of the interviewees' background characteristics, professional backgrounds, qualifications, and work experiences as well as the wide range of ideas and quotations obtained throughout the interviews. In addition, we have provided sufficient details regarding the research methodology, context and data collection methods. This will enhance the reproducibility and transferability of this study[37]

### Patient and public involvement

Patients and/or the public were not involved in the study.

## RESULTS

A total of 20 participants were interviewed, including 10 women who had an unintended pregnancy during the time of data collection and 10 healthcare providers working in maternal health services. It was found that 50% of the women were between the ages of 30 years and 35 years. Nearly 70% of the participants planned to abort their current unintended pregnancy, while about 40% had a history of unintended pregnancy or births (table 1).

Among the healthcare providers who participated in the study, a majority (60%) were between the ages of 31 years and 40 years. About 60% of the participants had a bachelor's degree (BSc), while 40% were midwives by profession. A majority (40%) of the participants had 5–10 years of professional experience (table 2).

### Themes

Seven themes were identified through an analysis of the transcribed interviews. These include: personal characteristics, family influence, sociocultural and economic influence, and healthcare provider influence, preconceptions thoughts and behaviours, lack of access to quality family planning services, and preventive strategies for unintended pregnancy, as shown in the online supplemental table 3.

#### Theme I: personal characteristics

The majority of the participants cited personal characteristics as a common reason for unintended pregnancy. The most frequently cited characteristics were negligence or carelessness, low expectations of pregnancy, lack of desire or willingness to use contraceptives, and women's lack of knowledge.

P12M2 noted that *'Being negligent and thinking that pregnancy will not happen was a reason for my current unwanted pregnancy. If I had not been negligent, I would have had access*

**Table 1** Background characteristics of women participants of the study, Addis Ababa, Ethiopia, 2022, (n=10)

| Variables | Categories | N (%) |
|---|---|---|
| Age, years | <20 | 1 (10) |
| | 20–24 | 2 (20) |
| | 25–29 | 2 (20) |
| | 30–35 | 5 (50) |
| Marital status | Single | 5 (50) |
| | Married | 4 (40) |
| | Divorced | 1 (10) |
| Religion | Orthodox | 3 (30) |
| | Muslim | 5 (50) |
| | Protestant | 2 (20) |
| Household income | <5000 ETB | 2 (20) |
| | 5000–10 000 ETB | 5 (50) |
| | >10 000 ETB | 3 (30) |
| Current work | Housewife | 2 (20) |
| | Student | 2 (20) |
| | Government | 1 (10) |
| | Private | 5 (50) |
| Education status | Primary | 4 (40) |
| | Secondary | 4 (40) |
| | University/college | 2 (20) |
| Parity | Null para | 4 (40) |
| | Para 1 | 4 (40) |
| | Para 2 | 1 (10) |
| | Para 4 | 1 (10) |
| Current pregnancy status | Continued | 3 (30) |
| | Planned for termination | 7 (70) |
| Previous unintended pregnancy/birth | Yes | 4 (40) |
| | No | 6 (60) |
| History of abortion | Yes | 2 (20) |
| | No | 8 (80) |
| Ever use of contraceptives | Yes | 5 (50) |
| | No | 5 (50) |

ETB, Ethiopian Birr.

**Table 2** Background characteristics of healthcare provider participants of the study, Addis Ababa, Ethiopia, 2022, (n=10)

| Variables | Categories | N (%) |
|---|---|---|
| Age, years | 20–30 | 3 (30) |
| | 31–40 | 6 (60) |
| | >40 | 1 (10) |
| Marital status | Single | 4 (40) |
| | Married | 6 (60) |
| Gender | Male | 3 (30) |
| | Female | 7 (70) |
| Education status | BSc | 6 (60) |
| | MSc | 2 (20) |
| | MD | 2 (20) |
| Profession | Midwife | 4 (40) |
| | Nurse | 3 (30) |
| | Midwife-nurse | 1 (10) |
| | Medical doctor | 2 (20) |
| Work experience (years) | <5 years | 3 (30) |
| | 5–10 years | 4 (40) |
| | 11–15 years | 2 (20) |
| | >15 years | 1 (10) |
| Current working unit | Antenatal care | 2 (20) |
| | Labour and delivery | 2 (20) |
| | Family planning | 3 (30) |
| | Safe abortion care | 3 (30) |

*to use a post-pill. But did not use it because of my laziness and lack of confidence'.*

P1H1 also remarked *'The majority of our clients who commonly experience unintended pregnancy, have had a lack of knowledge about contraceptives. They didn't know who can take them when they should be taken, where they can be accessed, or how long they should be taken'.*

### Theme II: Family influences

A sizeable portion of the study participants mentioned family as the primary cause of unintended pregnancies. They reported that fear of family members' negative judgement, fear of relationship discontinuation, forced sex, and a lack of open discussion on sexual and reproductive matters were the reasons for most unintended pregnancies.

P17M7 described, 'You know, I was very certain that I would become pregnant, but I was unable to use contraceptives because of my fear of my families and people around me'.

Similarly, P18M8 said, 'I don't want to use Norplant because my mother will notice it while washing my body, and she will kill me and herself too. I don't want to use any birth control method. How it be possible without an open discussion about sexual issues with family? This pregnancy happened with unexpected sexual intercourse. I promise you, it won't happen again'.

In addition, P2H2 noted that *'I remember 1 day, a university student who sought safe abortion care was advised for Norplant. She said, "No, no, my mom will see that and kill me without a second thought."'*

Furthermore, participants reported that husband/partner dominance in contraceptive decision-making, husband/partner refusal to use contraceptives, intimate partner violence, fear of separation or relationship

dissolution, and lack of open discussion about sexual and fertility issues were all reasons for unintended pregnancy.

P14M4 stated that, *'Although I decided to take a contraceptive, my husband disagreed. As a result, I got pregnant. You know, my husband wants to test my willingness to become pregnant to confirm whether I love him or not.'*

P20M10 further remarked, *'You know, sexual intercourse is always based on the husband's interest. If he wants to have sex, I never have the right to say no. If I say no, he will hate me and go for another woman. My religion does not even allow me to say no. Even when I fear pregnancy and want not to have sex, I can't do that. This causes unplanned pregnancy.'*

### Theme III: Sociocultural and economic influence

Participants claimed that religion, culture, stigma and discrimination, economic hardship, and social status (being a student or being single) were common reasons for unintended pregnancies. They described these factors as barriers to contraceptive use and reasons for unintended pregnancy.

P20M10 observed, '*In our culture, if the husband fulfills all the living expenses, the main responsibility of the woman (wife) is to give birth till the end of her reproductive age. This is an overaccepted belief by all women in the Silitea(Muslim) culture. The religion in that community strongly opposes any use of contraceptives. It is a must and natural obligation for women to give birth regardless of their pregnancy plan.'*

Fear of negative judgement from society is also another main reason for unintended pregnancy. P12M2 reported that *'if you use contraceptives while you are single, society will give you a bad reputation, and your family will be affected too. Because of this, many single women, including me, avoided using contraceptives'.*

Apart from this, participants cited economic dependence as the main reason for unintended pregnancy. P13M3 noted that *'I don't have a private or governmental job. I am dependent on my husband. I can't say no to sex. I have nothing now. Economic dependence is the main reason for this unintended pregnancy.'*

### Theme IV: Preconception thoughts and behaviours

Participants reported that unintended pregnancy was often caused by myths and misunderstandings, unprotected early sexual initiation, and multisexual partners.

P1H1 stated that 'Nowadays, Students with their uniforms are coming to health institutions for abortion services. The majority of them are under 16 years old and they started early sexual practice at this age. Surprisingly they have also multisexual partners which increase their risk of having an unplanned pregnancy.'

More so, P4H4 discussed, 'I heard from my friend that injection can cause infertility. She told me that she has been using injections for four consecutive years, but once she stopped using them, she was unable to become pregnant. You know, it's a sin for a woman to quit having children.'

P8H8 also mentioned *'Some mothers lack the interest to take contraceptives due to incorrect information they have about contraceptives. They believe that pills will inter the brain and it will negatively affect their life.'*

Furthermore, P3H3 remarked *'Many women who practice unprotected sexual intercourse consider abortion as a good opportunity for not using the family planning method. They consider abortion to be the safest contraceptive method.'*

P9H9 further described, *'Some of the mothers have a misunderstanding about the use of contraceptive pills and breastfeeding. They believe that missing pills while breastfeeding will not cause pregnancy.'*

### Theme V: Healthcare provider influence

As the participants noted, medical professionals compelled women to use contraceptives despite their choice. As a result, the women stopped using birth control and unexpectedly became pregnant. Some of the participants also stated that disrespectful approaches from the healthcare practitioner, failure to listen to women's concerns, refusal to change or remove methods, and the healthcare provider's fear of discrimination and stigma, were reasons for unwanted pregnancies.

P20M10 reported *'They don't give you a chance to use your preferred contraceptive. They usually force you to accept their choice. We talk about this issue at the village level with my friends. Even we choose the health center in this regard. In my opinion, contraceptive use should be based on my interests.'*

Moreover, P16M6 testified *'Sometimes, healthcare providers ask unnecessary questions such as Are you married? Where is your husband? You look like a kid. Why did you start sex at this age? This kind of question from healthcare providers may affect your decision to use contraceptives. You don't want to go there especially if you are a single or student.'*

### Theme VI: Lack of access to quality family planning services

The study participants identified lack of access to contraceptives, lack of appropriate and adequate contraceptive counselling services, lack of trained contraceptive counsellors, and lack of focus on at-risk groups as reasons for unintended pregnancy.

P4H4 reported *'One of the main reasons for unwanted pregnancies is lack of access to contraceptives, particularly for underprivileged populations such as sexually active students and domestic workers. I believe that the family planning programme does not focus on these high-risk groups. When asked why they did not use contraceptives, domestic workers often respond that they lack information and access to birth control methods. As a result, they commonly experience unintended pregnancy and unsafe abortion.'*

P2H2 also mentioned poor quality of contraceptive counselling as a reason for unintended pregnancy. She said, *'Apart from inadequate knowledge of healthcare providers, the current healthcare system has a higher client-to-provider ratio. This is a double burden that affects the quality of family planning counseling services, which can later affect the consistent and appropriate use of contraceptives.'*

On the other hand, participants cited contraceptive failure, discontinuation and side effects as reasons for unintended pregnancy. They reported negative effects

such as weight gain, severe bleeding and face discolouration, irregular or absent menstruation, and concern about infertility as reasons for avoiding hormonal contraceptive methods.

P10H10 reported *'Some of our clients discontinue contraception methods that alter their menstrual cycles or cause physical changes to their bodies. They do this because they are afraid that if they do not menstruate and show signs of contraceptive side effects on their bodies, their relatives and friends will assume they are in a hidden relationship.'*

### Theme VII: Preventive strategies for unintended pregnancy

#### *Integration of services*

Participants cited the integration of sexual and reproductive health and rights (SRHR) education as part of formal education, starting as early as grade eight and continuing to college or university. They highlighted the importance of avoiding unwanted pregnancy among sexually active schoolgirls and youths who lack knowledge and access to contraceptives. Similarly, they mentioned the need to link youth-friendly services to school clinics.

P17M7 remarked *'…sometimes, medical professionals provide first aid training within the school clinics. I think it would be good if they provided sexual and reproductive health (SRH) training too. It will be helpful to solve the SRH concerns of many students like me.'*

P5H5 also reported, 'You know, students under the age of 15 years are coming for abortions and they know nothing about birth control. We can not address all their SRH needs. The government needs to think about the integration of sexual health education with the educational curriculum, especially starting from grade 8, where many school girls start sexual relationships'.

#### *SRHR education*

Apart from integrating SRHR services, participants cited SRH education using social media such as TV shows, radio broadcasts, TikTok, Facebook and YouTube as preventive strategies for unintended pregnancies. They also recommended social gatherings and funeral ceremonies as good opportunities to teach SRH issues to people of different ages, social statuses, religions and geographical locations, and to teach men about SRHR issues, including family planning services. Similarly, participants recommended peer-based sexual education at school using mini-media as a means of creating awareness about sexual health.

P7H7 described *'Nowadays, our people use social media like radio broadcasts, TikTok, Facebook, TV shows, and YouTube more than ever. I strongly believe that SRH education through these media will make a difference in the use of birth control and the prevention of unintended pregnancies.'*

Furthermore, P20M10 also suggested SRH education at social gatherings as a good strategy for preventing unintended pregnancy. The participant reported, *'In my opinion, social gatherings are an opportunity to educate a large audience about SRH-related topics, such as common misconceptions about contraception.'*

#### *Improve access to quality of family planning services*

Participants also suggested community-level inclusive SRHR education and women-centred approaches to effective contraceptive counselling services. Additionally, hiring licensed family planning counsellors or training special counsellors, and taking into account vulnerable groups are crucial interventions to increase access to and quality of family planning services, and to reduce unintended pregnancy.

*P1H1 reported, 'In my opinion, we need to have a trained contraceptive counsellor whose major responsibility is providing comprehensive counselling about contraceptive methods and also addressing the need for birth control among disadvantaged groups.'*

P12M2 also cited, *'I believe that partners or husbands should also receive contraceptive information. They'll be well-informed about the side- effects and what to do if the women stop taking the medication. I'm confident that they will volunteer to wear condoms at least until the women switch to another safe method.'*

## DISCUSSIONS

This study found that personal characteristics, family influence, sociocultural and economic influence, healthcare provider influence, preconception thoughts and behaviours, and lack of access to quality family planning services, are the reasons for most unintended pregnancies in Ethiopia. Participants suggested preventive measures which help to combat further unintended pregnancies, such as the integration of SRH services, sexual education and improved access to quality family planning services.

The participants of this study made it clear that negligence and/or lower expectations for pregnancy based on prior experiences were the most frequently mentioned reasons for unintended pregnancies. The results of this study are consistent with a study conducted in Nigeria,[38] where women who experienced unintended pregnancies were oblivious to modern contraceptives. Similarly, a study from Michigan, USA,[39] found that feeling a low risk of pregnancy after engaging in unprotected sexual activity for some time without becoming pregnant was a reason for unintended pregnancies.

Correspondingly, a lack of understanding of hormonal contraceptives, including where to find them, how to use them and when to take them, was cited as a contributing factor to unintended pregnancies. According to participants, this issue affects many students and home servants in Ethiopia. This result is in line with a study done in China,[40] which found that students, especially those who had unintended pregnancies, lacked knowledge of contraception and reproductive health. This has significant implications for clinicians and programme managers working on family planning initiatives to reach target populations lacking family planning knowledge.

Similar to other studies,[41–43] this study found that fear of families and lack of open discussion on sexual issues increased the risk of unintended pregnancy. Many study participants reported fear of their families as a reason for

not using contraceptives and facing unintended pregnancy. Additionally, the lack of open discussions between parents and unmarried women or schoolgirls regarding SRH issues, including family planning, has been reported as a reason for unintended pregnancy. Many participants described discussing sexual issues before formal marriage as a negative experience. They considered it a mistake, wrong and untimely sharing of information that could mislead or initiate sexual activity among unmarried women or youth. It is important to understand women's lack of family support for using birth control or having open discussions on SRH issues and how to address this in future education and health promotion. This will help to reduce unintended pregnancies among vulnerable populations.

This study clearly showed the negative influence of husbands or partners on unintended pregnancies. Husband/partner dominance in decision-making regarding contraceptive use, forced sex, fear of separation or relationship discontinuation to say no to unprotected sexual contact, lack of husband/partner permission to use birth control, and lack of open discussion on sexual and fertility issues were the common reasons reported as causing unintended pregnancies. Similar findings have been reported in prior studies.[44–46] This study has implications for policies and programmes, with a special emphasis on male-inclusive SRH services.

Similar to previous evidence,[47] unexpected traits of healthcare professionals, such as an unwelcoming and discriminatory approach, coercing women into using contraceptives against their will, and refusing to change or remove methods, were reasons for unintended pregnancy. Likewise, counselling women while they are in labour, prescribing contraceptives without providing enough information about the method's side effects and how to manage them, and failing to listen to women's concerns during counselling, were the reasons given for unintended pregnancy following no or inconsistent and/or improper use of contraceptives.

On the other hand, limited access to contraceptives, poor counselling services, and disregard for vulnerable groups, high client flow and provider-to-client ratios, a lack of dedicated counselling space, lax abortion laws, and a shortage of contraceptive counsellors with the necessary training were reported as reasons for unintended pregnancies.

This study confirmed earlier findings[48 49] that myths and misunderstandings about pregnancy and contraception contribute to unintended pregnancies. Misconceptions and myths include the notion that abortion is a reliable method of birth control, contraception before having at least one child will result in infertility, intrauterine device will cause high blood pressure, the contraceptive pill will interact with the brain and negatively affect life, and skipping pills while breast feeding will not result in pregnancy. This demonstrates that millions of women are still discouraged or restricted from using contraceptives and experience unintended pregnancies due to myths and misconceptions. This emphasises the necessity of community education and effective contraceptive counselling services that dispel false beliefs and misunderstandings.

In addition, having a multisexual partner, initiating unprotected early sexual practices, and frequent partaking in sexually risky situations such as parties and dating were contributors to unintended pregnancies. The finding of this study was supported by other studies conducted in China[50] and Ghana.[51]

Prevention of unintended pregnancy is the primary goal of governmental and non-governmental organisations working on maternal and child health. In addition to prior efforts made to prevent unintended pregnancy, the current study proposes certain preventive strategies based on the perspectives of women and healthcare providers. First, it emphasises the necessity of incorporating SRH education into academic curricula to advance understanding of reproductive and sexual health at the grassroots level without incurring additional costs. Second, it suggests the need to integrate youth-friendly SRH services with first aid clinics in educational organisations.

Third, it highlights the importance of emphasising SRH education, particularly family planning information, for vulnerable populations such as students, domestic workers and single women. Fourth, this study suggests using social gatherings and social media platforms to provide SRH education to help increase public awareness of preventing unintended pregnancies by avoiding misconceptions and myths regarding contraceptive techniques. Fifth, the study suggests that male-inclusive family planning programmes are critical interventions to lower partner-related/husband-related barriers to family planning service utilisation and reduce the risk of unintended pregnancy.

### Strengths and limitations

Our study has several strengths. One of its strengths is that it includes the views of women and healthcare providers regarding the reasons for unintended pregnancies. This allowed us to explore the reasons for unintended pregnancy from the perspectives of both women and healthcare providers. Another strength of this study is that it included participants from diverse backgrounds. To obtain a diverse range of experiences and exposures to unintended pregnancy, we considered variations in women's background characteristics, such as age, occupation status (employed, student, housewife), social status (married/in a relationship, single, divorced), decision for current unintended pregnancy (to continue, to abort), and educational status. Similarly, we considered variations in healthcare providers' professional backgrounds, years of experience in maternal health services, qualifications, gender and current working unit (safe abortion care, family planning, ANC, labour and delivery) to obtain diverse insights into unintended pregnancy. Furthermore, the phenomenological approach was influential in translating messages from people's lived experiences regarding unintended pregnancies.

The use of a qualitative method, however, may render the findings not generalisable. However, the evidence generated is useful for understanding the multidimensional reasons for unintended pregnancy and for designing further interventional research. Another limitation of the study is that it only included urban-dwelling women and urban-based healthcare providers. More affluent populations, women and healthcare providers from remote areas may express additional reasons. Similarly, women's husbands/partners who were not included in the study may have had additional views about the reasons for unintended pregnancy.

## CONCLUSIONS AND RECOMMENDATIONS

In sum, this study provides the first qualitative attempts to explore reasons and identify preventive measures for unintended pregnancy from the perspectives of women and healthcare providers in Ethiopia. The study revealed seven themes: personal characteristics, family influence, sociocultural and economic influence, healthcare provider influence, lack of access to quality family planning services, preconception thoughts and behaviours, and preventive strategies. By addressing these themes, which explain the detailed reasons for unintended pregnancy, and considering the suggested solutions to the existing unintended pregnancy prevention initiatives, we can strengthen unintended pregnancy prevention efforts and reduce associated adverse consequences.

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