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The reasons for and influences of unintended teenage pregnancy in Kericho county, Kenya: a qualitative study

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Abstract

Background Unintended teenage pregnancies are associated with greater health and socio-economic risks for teenage mothers and newborns. In Kenya, the government has declared a target for ending teenage pregnancy by 2030. However, the prevalence of teenage pregnancy has only decreased slightly, demonstrating the need for further efforts. Understanding teenage mothers' own experiences and perspectives is necessary to design appropriate interventions.

Methods A community-based qualitative study was conducted from March to May 2023. Two focus group discussions were conducted with community health volunteers and the mothers of teenage girls. Semi-structured interviews were conducted on the case histories of 19 teenage mothers and 18 key informants. Thematic analysis was subsequently performed using MAXQDA 2022.

Findings Four major reasons emerged for unintended teenage pregnancies: (1) lack of knowledge or awareness about the human reproductive system, (2) lack of knowledge about family planning (FP), (3) financial challenges, and (4) low access to FP. At the study site, cultural norms and stereotypes, such as "infertility caused by FP," "freedom of sex by promoting FP," and "cultural taboos on having sex before marriage and talking about sexuality," were observed as barriers in promoting FP to teenagers. In addition, teenagers from low socio-economic backgrounds were found to be more vulnerable because they can be easily exploited by men who can afford to provide for some of their basic needs. Regarding the influences of unintended teenage pregnancy on teenage mothers' lives, the 19 cases were classified into four categories: (1) dropping out of school, (2) financial challenges, (3) changing relationships with parents, and (4) no major influence. Crucially, unintended teenage pregnancies negatively influenced most study participants. Continuing education, supportive parental attitudes, positive perceptions of the relationship with the child's father, and having future perspectives were identified as factors mitigating the negative influences.

Conclusions Strengthening culturally appropriate comprehensive sexuality education and the school re-entry policy with a supportive environment may prevent unintended teenage pregnancy and mitigate its negative influences. As financial challenges can be both a reason for and a negative influence of unintended teenage pregnancy, economic empowerment interventions are necessary.

Keywords Teenage pregnancy, Adolescent pregnancy, Unintended pregnancy, Family planning, Qualitative study

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Plain English summary

Teenage girls becoming pregnant unexpectedly face higher health and socio-economic risks, which can affect both the lives of teenage mothers and newborns. In Kenya, the government has targeted ending teenage pregnancies by 2030, but the decrease has been limited. Although understanding teenage mothers' experiences and perspectives is important for designing appropriate interventions, only a few studies have been conducted. This study focused on 19 teenage mothers and other key participants to gain a deeper understanding of their backgrounds.

Four major reasons were identified for unintended teenage pregnancies: (1) lack of knowledge or awareness about the human reproductive system, (2) lack of knowledge about birth control methods, (3) financial challenges, and (4) low access to birth control methods. At the study site, cultural norms and stereotypes were observed as barriers in promoting the use of birth control methods to teenagers. In addition, teenagers from poor backgrounds were found to be more vulnerable because they can be easily taken advantage of by men who can afford to provide for some of their basic needs. Regarding the influences of unintended teenage pregnancy on teenage mothers' lives, the 19 cases were classified into four categories: (1) dropping out of school, (2) financial challenges, (3) changing relationships with parents, and (4) no major influence. In this study, unintended teenage pregnancies negatively influenced most participants. Continuing education, supportive parental attitudes, positive perceptions of the relationship with the child's father, and having future perspectives were identified as factors mitigating the negative influences.

Background

Teenage pregnancy, also known as adolescent pregnancy and defined as delivery occurring between the ages of 10 and 19, remains a significant public health concern in Low- and Middle-Income Countries (LMICs) [1]. Every year, approximately 21 million pregnancies occur among girls aged 15–19 in LMICs, with 50% being unintended pregnancies that lead to an estimated 3.9 million unsafe abortions [1, 2]. Unintended pregnancy refers to an unplanned and unexpected pregnancy [3], defined as unwanted or occurring earlier than desired [4]. When teenagers conceive, the health risks of eclampsia, puerperal endometritis, and systemic infections increase compared to those of women aged 20–24. Moreover, the risks of low birth weight, preterm birth, and severe neonatal conditions to their newborns also increase [2]. The majority of maternal deaths among women aged 15–49 occur in LMICs, and complications related to pregnancy and delivery are the main causes of death among teenagers globally. Additionally, teenage mothers face adverse socio-economic consequences, such as dropping out of school, which causes the loss of employment opportunities, a decline in position in the family and community, stigmatization, rejection, violence, and forced marriage [5]. In Sub-Saharan Africa (SSA), the prevalence of unintended pregnancy among those aged 15–24 is 30% with Southern Africa having the highest rate at 60% and Eastern Africa having the lowest rate at 20% [6]. More than half of the pregnancies among girls aged 15–19 in five East African countries, including Kenya, were unintended [7]. The prevalence of teenage pregnancies in SSA remains high, and it is predicted to rise further by 2030 with the increasing numbers of teenagers. [8].

In Kenya, the government has declared the goal of ending teenage pregnancy by 2030 [9]. However, the decrease in their prevalence has been slight from 18% in 2014 [10] to 15% in 2022 [11]. During the COVID-19 pandemic, it was estimated that 152,000 teenage girls became pregnant, representing a 40% increase during the three months of lockdown [12]. Furthermore, evidence indicated that the risk of pregnancy among female students in secondary schools was twice as high compared to female students who graduated before the COVID-19 pandemic [13]. The prevalence of teenage pregnancy varies by county in Kenya, where the national average is 15%; the lowest is 4.3% in Nyandarua County and the highest is 41.5% in Samburu County [14]. In the study site of Kericho County, the prevalence of teenage pregnancy is 14.5% [14].

Regarding policy implementation, Kenya has implemented several policies related to sexual and reproductive health (SRH). In 2015, the National Adolescent Sexual and Reproductive Health Policy was implemented to focus on SRH among teenagers [15]. The policy includes actions for the prevention of early and unintended pregnancy, such as: providing accurate SRH information, providing accurate information and services of family planning (FP) methods, reinforcing programs to delay first sexual intercourse and promote abstinence, promoting male and community involvement, supporting school re-entry policy, etc. With regard to the school re-entry policy, it was enforced in 1994 [16]. The current national guideline for school re-entry targets students who dropped out of school due to early pregnancy, HIV/AIDS, gender-based violence, Female Genital Mutilation, child labor, child trafficking, special needs, drug and substance use, mental health, and emergencies such as

disaster [16]. Early pregnancy cases are addressed in the guideline through actions to be taken in three steps: first, for students who are discovered to be pregnant; second, for students who have dropped out of school due to pregnancy; and third, for the individuals responsible for the pregnancy.

Studies conducted in Kenya have explored issues surrounding teenage pregnancy, including FP use among teenagers, such as decision-making and perceptions of FP use. For example, the stigmatization of sexuality and pregnancy among girls aged 15–19 can negatively influence the decision-making related to FP use and even lead to unsafe abortion or suicide because the stigma of sexuality and pregnancy does not lead to FP use but leads to hesitation in accessing FP. In the study, adolescents reported that concerns about acquaintances discovering their use of FP services led to increased difficulty in accessing these services, such as having to visit other communities to obtain FP. Additionally, the fear of being ridiculed by friends at school for being pregnant or for having had an abortion was mentioned as reasons for choosing abortion or suicide [17]. Another study mentioned the stigma of sexuality, pregnancy, FP use, and unequal sexual relationships as factors influencing girls' decisions regarding FP use among those aged 15–19 [18]. Another problem preventing the uptake of FP in Kenya is misconceptions around it. For example, promoting modern FP to teenagers is hampered by the widespread misconceptions among teenage girls, parents, and community health volunteers (CHVs) that the hormonal method results in infertility [19]. The same misconceptions were revealed in another study regarding some types of modern FP (pills, implants, and injectables), with more often misconceptions regarding injectables [20]. On the health risks of teenage pregnancy, a study conducted in informal settlements in the capital city, Nairobi revealed that girls who became pregnant under the age of 18 had significantly poorer physical health in adulthood. Furthermore, the risk of mental disorders was approximately twice as high than those who became pregnant after 18 [21]. One nationally representative study showed that girls aged 12–19 accounted for 32% among patients aged 12–24 who presented post abortion care [22].

Although understanding teenage mothers' experiences and perspectives is necessary to design appropriate interventions for the prevention and mitigation of these negative influences, studies focusing on teenage mothers themselves are scarce in Kenya. One study focused on teenage mothers provided four reasons for unintended pregnancy: the desire to continue being in relationships with their partners, lack of knowledge about FP, misconceptions of FP, and lack of reliable mentors. The same study revealed that older age, double orphans, lower educational level, being married, being out of school, and not using FP were significant risk factors for unintended pregnancies among girls aged 15–19 [23]. Another study exploring teenage mothers' experiences and needs found that they faced several socio-economic challenges. For example, during pregnancy, teenagers face self- and social stigma, lack of emotional or financial support from their partners, and stress because of concerns about providing food or other resources needed for themselves and their newborns. Such situations continued for new mothers [24]. However, the persistence of such situations, and how such experiences and perceptions can be changed have not been explored. This study focused on teenage mothers and sought to answer the following research questions: What are the reasons for unintended teenage pregnancies? What are the influences of unintended teenage pregnancies on teenage mothers' lives?

Methods

Study design

This is a community-based qualitative study including two focus group discussions (FGDs), 18 key informant interviews (KIIs), and 19 in-depth interviews (IDIs). Two FGDs were conducted with six CHVs and seven mothers of teenage girls. Eighteen KIIs were conducted with three nurses, two community health assistants (CHAs), ten teachers, two teenage girls who had never experienced pregnancy, and one traditional herbalist who conducts herbal abortions. For IDIs, 19 teenage mothers who delivered within five years were included.

Study setting

This study was conducted from March to May 2023. The study site was Simbi Sub-location, Soin/Sigowet Sub-County, Kericho County, Kenya. Kericho County has a total population of 901,777, with 808,239 being rural residents [25]. 126,498 people (aged 10–19:34,941) in 27,195 households live in Soin/Sigowet Sub-County, where the study site is located. Of these, 22,829 households are engaged in farming, 22,237 in crop production, and 17,869 in livestock production [26, 27]. Simbi Sub-location, the study site, has a total population of 4,584 with 958 households [25].

The study site has six public schools: five primary and one secondary schools. The attendance rate at schools or learning institutions in Kericho County is 98% among those aged 6–13 (age for primary school) and 94% among those aged 14–17 (age for secondary school) [27]. In Kenya, health facilities are categorized into six levels. Level 1: health services at the community level; Level 2: health dispensaries; Level 3: health centers; Level 4: county hospitals; Level 5: county referral hospitals; and Level 6: national referral hospitals [28]. At the study site,

there were two health dispensaries, each with one or two nurses. In addition, one CHA and ten CHVs were working at the study site. CHAs are employed by the county government to link communities and local health facilities, whereas CHVs are selected by community members and play important roles in providing preventive and basic curative services [29]. Free FP distribution services are offered at health dispensaries in the study site, but their availability is unstable.

Recruitment methods

Focus group discussions

Two FGDs were conducted with the CHVs and mothers of teenage girls. Six CHVs who met the following inclusion criteria were recruited by a nurse referral: (1) CHVs who had been actively participating in activities as a CHV at the study site; and (2) those who consented to participate in this study. Seven mothers of teenage girls who met the following inclusion criteria were recruited from the catchment area of a health dispensary by a nurse referral: (1) mothers who had at least one teenage daughter who had never experienced pregnancy; and (2) those who consented to participate in this study. FGDs with mothers of teenage girls were conducted to understand their perceptions of teenage pregnancy and sex education, considering whether their daughters had experienced teenage pregnancy. At the study site, cases of teenage pregnancy were frequently observed. Therefore, the mothers who had at least one teenage daughter who had never experienced pregnancy were recruited. As a result, out of seven participants, six mothers had both daughters with and without teenage pregnancy experiences.

Key informant interviews

The 18 KIIs were conducted with three nurses, two CHAs, ten teachers, two teenage girls who had never experienced pregnancy, and one traditional herbalist. All three nurses working at the health dispensaries in the study site, and both CHAs who were involved with the study site, were recruited after obtaining consent to participate in this study. Ten teachers from all six public schools at the study site were recruited based on the following inclusion criteria: (1) the health teacher, or if unavailable due to illness or scheduling conflicts, the principal, vice principal, or another teacher recommended by them who had knowledge about teenage pregnancy; and (2) those who consented to participate in this study. There was one health teacher at each school in the study site, responsible for addressing students' health issues. In some cases, the health teacher also held other teaching responsibilities. As a result, interviews were conducted with one teacher at two schools, and two teachers at four schools. Two teenage girls who met the following inclusion criteria were recruited by a nurse and village chief referral: (1) teenage girls who had never experienced pregnancy; and (2) those who consented to participate in this study, or if they were under 18 years of age, those whose parents or guardians consented. As herbal methods for abortion were frequently mentioned, one traditional herbalist who conducts herbal abortions was recruited after obtaining consent to participate in this study.

In-depth interviews

The 19 IDIs were conducted with teenage mothers. To recruit participants from the entire study site, geographical conditions were considered. The study participants were recruited by CHVs referral according to the inclusion criteria. However, if there was no active CHV in a specific area, the village chief recruited them. In total, 13 participants were recruited by CHVs, and a village chief recruited 6. For those under 18 years of age, the CHV, village chief, or nurse in charge obtained agreement from the parents or guardians and authorization to sign informed consent on their behalf owing to the geographic accessibility of each household. Study participants were recruited until data saturation was reached. The CHVs and a village chief who possessed comprehensive information about community members were informed beforehand of the inclusion and exclusion criteria. There were no instances in which the exclusion criteria were breached during the interviews.

- Inclusion criteria for IDIs: (1) mothers who are currently above 15 years of age and delivered in their teenage years within the last five years; (2) those who lived in Simbi-Sub location when they delivered; and (3) those who consented to participate in the study.
- Exclusion criteria for IDIs: mothers who were currently teenage and pregnant.

Data collection methods and procedure

A research assistant (RA) received training regarding the concepts, objectives, methods, and ethical considerations of this study. A younger female RA from the same ethnic group as the study participants was engaged in data collection to mitigate discomfort when discussing sensitive experiences. The RA majored in public health, and had prerequisite SRH and qualitative research knowledge. The RA was fluent in three languages: English, Kiswahili, and Kipsigis, which is the local language at the study site.

Before starting the discussion or interview, informed consent or assent was explained in English, Kiswahili, or Kipsigis according to the participant's preference. Using

semi-structured discussion or interview guides and probing questions, all discussions or interviews were conducted face-to-face in a private setting. After informed consent or assent was obtained, an IC recorder was used. The principal investigator (PI) served as the facilitator or interviewer for all discussions or interviews, while the RA was the translator. All interviews were conducted in English, Kiswahili, or Kipsigis according to the participant's preference. The FGDs, KIIs, and IDIs lasted for 60–80, 20–70, and 20–50 min, respectively. Special consideration was given to the discomfort experienced by the IDI participants themselves, as well as the waiting time endured by their children.

For IDIs, a case-history approach was used. This is a specialized method for chronologically interviewing an event from its onset to its end. Since the study objective included the influence of unintended teenage pregnancy on teenage mothers' lives, the endpoint was the timing of the interview. To achieve the study objectives, it was important to obtain detailed information about their experiences with teenage pregnancy, such as perceptions, decision-making, and personal emotions in chronological order.

Data analysis

A thematic analysis was conducted. All collected data were anonymized and transcribed into English. Each transcript was created shortly after the discussion or interview to update the semi-structured guides according to the collected data. Several procedures were used to create the transcripts: (1) the RA transcribed the discussion or interview in English; (2) the PI reviewed the transcripts made by the RA by listening to audio-recorded data and reviewing field notes taken during the discussion or interview to ensure accuracy; and (3) the RA reviewed the transcripts again based on the PI's comments. The PI read the transcripts several times to become familiar with the data. Subsequently, deductive coding using a codebook created in advance based on literature reviews and inductive coding based on the collected data were performed using MAXQDA 2022. Coding began early in the data-collection phase and continued until all data analyses were completed. Important information was organized into themes by categorizing the generated codes.

Ethical considerations

Ethical approvals were obtained from the Ethical Committee of the Graduate School of Tropical Medicine and Global Health, Nagasaki University (Approval No.: NU_TMGH_2022_233_1), and the Maseno University Scientific and Ethics Review Committee (MUSERC) (Reference No.: MSU/DRPI/MUSERC/01183/22). A research license was also obtained from the National Commission for Science, Technology, and Innovation (NACOSTI) (License NO.: NACOSTI/P/23/24181). Additional approvals were obtained from the Ministry of Interior and National Administration, Ministry of Education (MOE), and Ministry of Health (MOH) at Kericho County.

Findings

Overview of social norms related to teenage pregnancy

The participants of the FGDs and KIIs discussed issues related to teenage pregnancy, focusing on the reasons for and influences of unintended teenage pregnancy. Four major topics emerged: infertility caused by FP, freedom of sex by promoting FP, cultural taboos on sexuality, and poverty as a reason for having a sexual relationship. The basic information of the FGD participants is presented in Table 1, and the basic information of the KII participants is presented in Table 2.

Infertility caused by FP

Infertility was the most frequently mentioned concern in promoting FP to teenagers. During FGD with the mothers of teenage girls, the participants discussed how their older daughters' teenage pregnancies were burdens. However, some still discouraged the promotion of FP to their younger daughters who had never experienced pregnancy because of concerns about infertility.

> *"For me also, I see it is better to talk to them. They might listen. Because when you see these drugs of family planning, you may even hear on the radio that they affect people." (FGD, a 28-years-old mother of teenage girl).*

> *"We better talk to them. Because when we allow like 15-year-old girls to use family planning, it can affect them and it will be a problem for them tomorrow if they don't conceive. So, they will end up seeking extra costs on medication." (FGD, a 37-years-old mother of teenage girl)*

A teenage girl who had never experienced pregnancy explained that her mother refused FP due to concerns regarding infertility. Currently, she uses condoms with her partner.

> *"My mother refused [FP]. She said it affects like in the future. You will not have kids." (KII, a 16-years-old teenage girl who had never experienced pregnancy)*

Unlike the above perceptions, some nurses, CHVs, and a CHA explained infertility as a misconception among local people.

> *"They [local people] think they [FP] might ruin their life in the future before they start giving birth or something like that. I think it is just a lack of knowledge of what family planning can do." (KII, a 26-years-old female nurse).*

> *"Anybody old, they believe if you inject this girl, she will not give birth anymore. It will destroy all the eggs* [ova] *in the body." (KII, a 40s female CHA).*

Freedom of sex by promoting FP

The second most frequently mentioned concern in promoting FP to teenagers was that it encourages sexual freedom. Some participants expressed their concerns in promoting FP with the words "immorality" and "promiscuity."

> *"You know, they* [FP] *are restricted somehow by their parents. Like for example, if you are a girl and you want to go and get that injection, you will be asked why, which means you want to go and get involved in sexual activity. So, they would rather discourage you from getting that injection, because they know when you get that injection, definitely, you are now free to engage in sex." (KII, a 59-years-old male principal).*

> *"You know, my perception is that it will encourage the innocent ones to start using them. The innocent ones who have not been exposed can start trying those contraceptives. So, I don't think it's good to introduce those family plannings." (KII, a 39-years-old female health teacher).*

> *"We make the child have sex freely because she knows she will not get pregnant…don't encourage them to use family planning, because if they do, they will be free, and they will know even if they have sex, there will be no pregnancy, so that the teenagers will be immoral and they will be destroyed." (FGD, a 34-years-old female CHV)*

In the following two statements, a participant acknowledged the need for the school to provide information on FP to students; however, he believed that abstinence should be promoted due to concerns about sexually transmitted diseases (STDs) and "promiscuity."

> *"They might want to be promiscuous because if they are doing it* [FP], *because they fear getting pregnant, that will encourage promiscuity, and you know, they may do it even without any form of protection if there is* [FP], *and you see diseases may arise especially on these girls. So, we normally give that let them not fear pregnancy alone, but let them abstain. Actually, we teach abstinence." (KII, a 53-years-old male principal).*

> *"As a school, we…but indeed, when it comes to matters of prevention of disease, a school is supposed to provide like condoms even prevention of early pregnancies, but you see, we say we provide, it is like we are propagating that we are now providing and you can go ahead." (KII, a 53-years-old male principal)*

Four of the six public schools considered in this study reported that they provide sex education such as human reproductive system in science or biology classes. However, the content of sex education was more focused on avoiding sexual intercourse by mentioning STDs, HIV/AIDS, and school dropouts due to pregnancy, rather than teaching them about FP as an effective method to prevent such adverse consequences.

Cultural taboos on sexuality

Cultural taboos on having sex before marriage and discussing sexuality were mentioned as issues related to providing information on SRH, such as pregnancy or FP, to teenagers. For example, one CHV explained cultural taboos as a barrier to providing FP information to teenagers, although he understood its importance because of the adverse outcomes of teenage pregnancies at the study site.

> *"When we talk about teenage pregnancy and family planning, we must first consider how our culture brought us up. The culture prohibited family planning among teenagers, and even sex was prohibited. Sex was meant only for married couples." (FGD, a 36-years-old male CHV).*

Some participants shared the difficulty of talking about sexuality with their daughter as follows:

> *"What I meant is that you don't tell your child or boy to abstain because you can't directly say things like that to them. How would you tell them? Even if it's my daughter, how would I start such a conversation?" (FGD, a 26-years-old female CHV).*

> *"Mothers are rarely open to discussing sexuality matters with their daughters face-to-face. For example, it's difficult to tell my daughter that engaging in sex before*

marriage can lead to consequences like 1, 2, and 3. I fear… They can't even talk about menstruation. To some people in the local community, discussing these topics seems culturally taboo." (KII, a 53-years-old female vice principal).

"In the Kalenjin community [the ethnic group], *you were not supposed to talk to your daughter about sex. However, now we have to address it. If it's not considered taboo, you need to discuss these matters with your daughter, because if you don't, she might end up doing it* [having sex]*." (KII, a 40s female CHA).*

Poverty as a reason for having a sexual relationship

Poverty was frequently mentioned among the study participants as a reason for unintended teenage pregnancy. Some participants explained that teenage girls lack basic needs, such as sanitary napkins.

"They [teenage girls] *cannot meet mostly basic needs, what they need. You know, girls are not like boys; there are so many things beyond what boys want, which they want. So, they can engage in that sexual relationship to get money to meet the things they want…a girl may want sanitary towels, those the parents cannot buy, so the girl might decide to engage in such* [sexual relationship] *…that's why I was talking about poverty." (KII, a male health teacher).*

"Maybe their [teenage mothers'] *parents didn't provide, maybe sanitary napkins…now, she looks for a boyfriend who can provide them for her." (KII, an 18-years-old teenage girl who had never experienced pregnancy).*

Some participants reported a link between teenage pregnancy and poverty based on their experiences, noting that teenage girls who were neglected by their families due to financial challenges or who struggled with food insecurity were preyed upon by men who offered money or food. They explained the connections between teenage pregnancy and poverty as follows:

"She [the student who became pregnant in her teenage years] *came from a poor background. So, due to negligence at home, this man was giving her offers, maybe some money, so maybe she fell into the trap and became pregnant." (KII, a 39-years-old female health teacher).*

"I can say relatively poor families. Because I see them, I know them…the ones that come from single-mother families are really struggling to put food on the table, and for others, if there are both parents, the issue is food and poverty again. The main one is poverty." (KII, a 26-years-old male nurse).

Regarding potential partners, bodaboda (motorcycle) riders who provide local motorbike transportation were frequently mentioned. Some participants explained that these riders offer money or free rides to girls facing financial challenges and, in return, engage in sexual relationships with them. The explanations are as follows:

"The reason why these children are getting pregnant very early is the level of poverty, poverty level. Because these bodaboda riders are exchanging and giving money to these young kids." (KII, a 33-years-old male game teacher).

"You see, they [bodaboda riders] *give them* [teenage girls] *lift. They can carry them for free…and they pay through that side. It is like I give you free transportation, then in return, they pay through sex." (KII, a 40s female CHA).*

Case history

The general characteristics of the 19 IDI participants are presented in Table 3. Their ages ranged from 16 to 20 years. All participants had only one child, and the average age when they became pregnant was 15. Only five participants still had a relationship with the child's father. Among the 13 IDI participants who ended relationships with their partners, the partners of eight teenage mothers did not deny the pregnancies; however, they did not assume responsibility and ceased contact after being informed of the pregnancies. Meanwhile, partners of four teenage mothers denied their pregnancies, and one asked to abort. All participants were single. When they became pregnant, all were in school (12 in primary school and 7 in secondary school). One of them completed secondary school, seven continued after delivery, three did not yet return to school but had the intention to return, and eight dropped out because of the pregnancy. The average number of Antenatal Care (ANC) visits was three, and the average timing for the first ANC visit was six months of their pregnancy. Regarding the delivery place, 16 of the 19 participants delivered at health facilities, while three delivered at home. Of these, two had planned a home delivery in advance because of a lack of money. Sixteen participants underwent normal delivery, while three had cesarean sections because of no contractions, physical immaturity of the mother, and prolonged labor. The participants reported that there were no major complications during delivery. However, three participants

mentioned health challenges: delivery at eight months of pregnancy, anemia at eight months of pregnancy, and blood transfusion during delivery due to a lack of blood.

All cases were defined as unintended pregnancies due to unintentional or negative perceptions of the pregnancies when they realized it. The first feeling mentioned by participants were: *"I was surprised," "I was thinking of abortion…," "I felt bad," "Getting away from home," "I was so shocked," "I got stressed," "I wanted to kill myself," and "I felt guilty."*

The reasons for unintended teenage pregnancy

Four major reasons emerged for unintended teenage pregnancy: (1) lack of knowledge or awareness about the human reproductive system, (2) lack of knowledge about FP, (3) financial challenges, and (4) low access to FP. In most cases, there was not just one reason; some reasons were related and overlapped.

(1) Lack of knowledge or awareness about the human reproductive system

First, there was the lack of knowledge or awareness about the human reproductive system. Among the 19 participants, 13 lacked knowledge about their reproductive health system or were unaware of the possibility of becoming pregnant at that time.

A 17-year-old mother (Case No. 15) became pregnant when she was 15. Before the pregnancy, she completely lacked knowledge about the human reproductive system and had only heard of FP without any knowledge of it. She explained that she did not realize her pregnancy until her mother pointed it out, although it was already the fifth month of her pregnancy.

> Interviewer: *How did you realize your pregnancy?*
> Informant: *I didn't know.*
> Interviewer: *How did you know? What made you sense that you were pregnant?*
> Informant: *Mother told me…she told me it was like I was pregnant, so we needed to go* [to the hospital] *and get tested.*

Among the 19 participants, 4 had no idea about the possibility of becoming pregnant before the pregnancy. However, although they had an idea, sometimes they did not think it was anything of their concern. In the following case, an 18-year-old mother (Case No. 13), who became pregnant when she was 15, knew about the risk of becoming pregnant; however, she did not think it would happen to her. She described how she explained her pregnancy to her mother when her mother realized it. Her description highlighted her perceptions before the pregnancy.

> *"Then, my mom called me, asked me, and quarreled with me. But I told her that I would not repeat it again because I didn't know it could happen." (Case No. 13, an 18-year-old mother).*

(2) Lack of knowledge about FP

Although some participants were aware of the possibility of becoming pregnant through unprotected sexual intercourse, they were sometimes unable to prevent an unintended pregnancy because of a lack of knowledge about FP. None of the participants in the IDIs mentioned infertility as a topic, unlike in the FGDs and KIIs, where it was raised. The knowledge and use of FP before and after pregnancy are shown in Table 4.

Before pregnancy, none of the participants had experience in using any FP method. Only 3 out of 19 participants reported that they knew at least one FP method and its function before pregnancy. Another three participants knew at least one FP method and its function but did not know in detail, four knew only the existence of FP, and nine did not know at all. After pregnancy, 6 of the 19 participants started using FP methods, and two intended to use them soon. However, three did not receive any information from anyone after their pregnancy (one teenage mother received information from a poster at a health facility). In addition, two had no intentions to use FP in the future without clear reasons, while another participant explained that she would not use it even if she gets another partner because of fear of the pain of injectables.

A 17-year-old mother (Case No. 4) became pregnant when she was 15 or 16. She was aware of the possibility of becoming pregnant before the pregnancy. However, she did not have enough knowledge about FP.

> Interviewer: *Did you have any information about family planning before becoming pregnant?*
> Informant: *No, I knew after delivery.*
> Interviewer: *No information from the school?*
> Informant: *We were just told.*
> Interviewer: *Who told you?*
> Informant: *Teachers.*
> Interviewer: *What kind of information?*
> Informant: *They only told us there was family planning.*

All public schools at the study site reported that they did not provide information on FP or just mentioned its existence. Therefore, teenagers may have limited opportunities to obtain such information at schools. In the following case, a 20-year-old mother (Case No. 17), who became pregnant when she was 17, had the same pattern:

she knew she could become pregnant, but had limited knowledge about FP.

> Interviewer: *Before you became pregnant, did you have any experience using family planning?*
> Informant: *No.*
> Interviewer: *But did you know about family planning?*
> Informant: *I know it now, but at that time, I didn't know.*

(3) Financial challenges

Among the 13 participants who were asked if they had been receiving money from their partners, nine reported that they had received it. Some did not expect to receive money from their partners before having a relationship or because the reason for having a relationship was not money. In some cases, participants stated that they had relationships with their partners to obtain money because of financial challenges.

An 18-year-old mother (Case No. 11) became pregnant when she was 14. When asked whether receiving money was the main reason for having a relationship with the partner, she explained the following:

> *"Only money...if my father had given me money, I would not have a relationship with him* [her partner]. *My father has two wives, and he stays with the other wife. He is not coming home." (Case No. 11, an 18-year-old mother).*

A 19-year-old mother (Case No. 18) became pregnant when she was 17 after her first sexual intercourse. She expected that if she had a boyfriend, he would give her money. Her explanation of the financial situation at home is as follows:

> *"Money...maybe I saw my parents were not able, if I tell my parents* [to give me money], *she may answer me that I am providing food, but I can't give you that money for snacks." (Case No. 18, a 19-year-old mother).*

She also explained that she wanted to buy personal items, such as sanitary napkins and clothes, while her partner had actually given only a little money.

In this study, two girls who had never become pregnant had also been receiving money from their partners. Both of them use FP methods such as condoms and emergency pills.

(4) Low access to FP

In two cases, low access to FP was a part of the issue, although it was not the only reason for the unintended teenage pregnancy.

In one case (Case No. 15), low access due to a lack of supply was mentioned. This issue was also reported by other participants. Two teenage mothers explained that they tried to access FP after becoming pregnant but it was out of stock. Even if these methods are not available at health facilities owing to a lack of supply, they can still be accessed at pharmacies. However, because pharmacies are only in town, they require transportation fees and costs for FP because free FP distribution services are offered only at health facilities.

In the other case, low psychological accessibility was mentioned. A 19-year-old girl (Case No. 18) became pregnant when she was 17. She explained why she did not use FP although she had sufficient knowledge of it.

> Interviewer: *For family planning from the dispensary, was it not free at that time?*
> Informant: No, *it is free, but maybe you fear because you are still a child.*
> Interviewer: Fear for what…?
> Informant: *From going to take it from the nurse maybe.*
> Interviewer: *Nurse may say what…? What was your expectation if you go to take it, for example?*
> Informant: *Maybe you are still a child, you don't need to use that.*
> Interviewer: *Do you have any experience hearing such a story?*
> Informant: *Yes, my classmates were saying.*
> Interviewer: *Saying what…?*
> Informant: *Maybe the doctor* [nurse] *uses some abusive language.*

As presented in the section on the *overview of social norms*, the idea that teenagers are not supposed to use FP was common at the study site. For teenagers, it can be one of the barriers because FP information does not reach them. Even if they get the information, they may hesitate to access FP because of the expectation of how they will be treated.

The influences of unintended teenage pregnancy on teenage mothers' lives

Regarding the influences of unintended teenage pregnancy on teenage mothers' lives, the 19 cases were classified into four categories: (1) dropping out of school, (2) financial challenges, (3) changing relationships with parents, and (4) no major influence.

(1) Dropping out of school

Dropping out of school was a major negative influence of teenage pregnancy. In this study, among the four participants who thought of abortion when they realized their pregnancies, one teenage mother (Case No. 8) specifically mentioned that she considered having an abortion to prevent her parents from knowing about her pregnancy and from being unable to continue her education. Among the 19 participants, eight dropped out of school. Of these, seven reported that they had to drop out due to a lack of money because of additional costs for the child, the inability of anyone other than themselves to care for the child, and insufficient parental understanding for returning to school. One was not even thinking of returning to school at that time because she experienced a lot of stress about her pregnancy when she realized it, and had just stopped going to school. Of the 19 participants, three had not yet returned to school but had the intention to return.

A 16-year-old mother (Case No. 5) became pregnant when she was 14 or 15. She perceived dropping out of school to be the most challenging after her pregnancy, since it can lead to the loss of job opportunities. She dropped out of school when she was in Class 7 in primary school because her mother was a drunkard, and no one could take care of her child. When asked how the situation before and after her pregnancy changed in both negative and positive ways, she stated the following:

> *"When you see, many things like school now...when I want to go, no one will assist me in taking care of the baby and there is no sponsor who can sponsor me... it's good, the baby is good, but now, it could be good if I could continue with school. When you deliver and stay at home, life becomes difficult." (Case No. 5, a 16-year-old mother).*

Based on the collected information, school re-entry policy guidelines for pregnant students were partially implemented at the study sites. For example, some IDI participants explained that when they discovered their pregnancies, they received advice from their teachers on continuing their education, avoiding abortions, and attending the ANC. In relation to the school's response, one school mentioned that it held pregnancy-related guidance for all students after discovering a case of pregnancy. However, only two schools mentioned persuading parents not to remove their children from school after discovering a case of pregnancy. Regarding the response to the partner in the case of pregnancy, none of the six schools mentioned any action. Moreover, none of the six schools recorded the number of students who became pregnant and dropped out of school because of it.

(2) Financial challenges

Financial challenges due to pregnancy were also mentioned as negative influences. Unintended pregnancy may lead to unexpected additional costs and result in more difficult financial situations.

An 18-year-old mother (Case No. 16) became pregnant when she was 14. She described her current difficult financial situation and received no financial support from her partner.

> *"Those days were better compared to now. Now, the challenges are many, like I have to hustle to get money so that I can provide food and clothing for my baby." (Case No. 16, an 18-year-old mother).*

In the following two cases, participants mentioned money as the reason for having a relationship with their partners.

An 18-year-old mother (Case No. 11) became pregnant when she was 14. She explained that her life had become financially difficult compared to before the pregnancy.

> "*Life has become hard compared to before...now the baby wants food, clothes to wear, and many things, but there is nothing at home. So, I have to work hard to get the money." (Case No. 11, an 18-year-old mother).*

Although the pregnancy was unintentional, she could still accept the situation when she realized it. However, because her partner refused the pregnancy, she had concerns about money for her child, resulting in suicidal thoughts. She explained that she was about to take herbicides to commit suicide, but her mother realized this and advised her not to.

Another 18-year-old mother (Case No. 14) became pregnant when she was 15 or 16. She also described the financial challenges after her pregnancy. Because she broke up with her partner, she received no financial support from him.

> "*Let's say when you want food, there is none. You know, someone who has a baby and who is breastfeeding gets hungry so much." (Case No. 4, an 18-year-old mother).*

(3) hanging relationships with parents

In the following two cases, participants mentioned that their relationships with their parents changed because of negative parental attitudes towards their pregnancies. Some other participants also mentioned this, but it continued even after delivery in these two cases.

A 17-year-old mother (Case No. 4) became pregnant when she was 15 or 16. She recalled sleeping in a bush due to her parents' harsh tone during pregnancy.

> *"After pregnancy, problems have been many…sometimes the parents scolded me and ended up sleeping in the bush…when they scolded me, I just ran away." (Case No. 5, a 17-years-old mother)*

A 19-year-old mother (Case No. 18) became pregnant when she was 17. When asked how the situation before and after her pregnancy changed in both negative and positive ways, she stated the following:

> *"Negative…like raising a child and the way my parents are treating me. Like when I tell them to buy for me Pampers* [the brand name for disposable diapers], *they reply badly like we didn't send you* [to school] *to get pregnant." (Case No. 18, a 17-year-old mother).*

When her mother realized her pregnancy at six months, she verbally abused her, using the word "prostitute." Because the environment was not friendly to her, she stayed with her aunt in Mombasa County without informing her parents at six months of her pregnancy. After delivery, she returned home because her aunt could not take care of her after a cesarean section. She explained that her parents sometimes do not provide money.

(4) No major influences

In the following two cases, participants perceived their pregnancies to have no major influence on their lives. Both continued their education with parental assistance.

A 20-year-old mother (Case No. 17) became pregnant when she was 17. When she told her partner about her pregnancy, he accepted it and said that they would take care of the child. He started to give her money every month. She described the influence of her pregnancy as follows:

> *"It* [pregnancy] *has not affected me. Because after delivery, I went back to school to study and I am doing good. Also, the father of the baby accepted* [the pregnancy], *and my parents accepted to pay for my school fees." (Case No. 17, a 20-year-old mother).*

Support from her partner and continuing education helped her maintain the same daily life even after the pregnancy. She explained that she wanted to get a job and have a family after graduation. She was the only one who went to a private health facility for delivery; therefore, her home may be more financially stable than that of the other participants.

Similarly, an 18-year-old mother (Case No. 19) who became pregnant when she was 15 described the influence of her pregnancy as follows:

> *"I learned lessons since that day. It's not that bad because I have learned that having a baby has a lot of work. Now, I have to read and study hard to excel because I have a baby at home." (Case No. 19, an 18-year-old mother).*

Her partner refused to recognize her pregnancy and left her. When she consulted her partner's refusal to her mother, her mother advised her to leave him alone because she could take care of her child and that the participant could return to school. She dreams of becoming a doctor.

Discussion

This study sought to gain a deeper understanding of the reasons for and influences of unintended teenage pregnancy by focusing on teenage mothers. Four major reasons emerged for unintended teenage pregnancy: (1) lack of knowledge or awareness about the human reproductive system, (2) lack of knowledge about FP, (3) financial challenges, and (4) low access to FP. In addition, stereotypes and cultural norms, such as "infertility caused by FP," "freedom of sex by promoting FP," and "cultural taboos on having sex before marriage and talking about sexuality," emerged as barriers in promoting FP to teenagers. Some findings are consistent with another Kenyan study, which found similar reasons for unintended pregnancy: a lack of knowledge about FP and misconceptions of FP. Meanwhile, no participant in the present study mentioned the desire to continue being in relationships with their partners or a lack of reliable mentors, unlike the previous study [23].

Among the IDI participants, although all were in school when they became pregnant, many participants either had no idea of pregnancy or had knowledge but did not think it would actually happen to them. Four of the six public schools at the study site reported that they provide sex education. However, it was more focused on abstinence by mentioning adverse consequences of sexual intercourse, making them fearful rather than teaching them about FP as an effective method to prevent such adverse consequences. According to one report, 52.1% of students in public schools in three counties in Kenya were comprehensively taught the physiology of sex and reproduction, such as menstruation, pregnancy and delivery. Yet, only 20.7% were taught about FP and 14.3% taught how to use FP. Moreover, the report pointed out that the Kenyan sexuality education curriculum was a fear-based

teaching method [30]. The same situation was observed at the study site. Notably, 36.3% of girls aged 15–19 are sexually active [10] and 34.5% of unmarried girls aged 15–19 in Kenya have unmet needs for FP [11], meaning women who are sexually active and have no intention to have children or want to delay having children but not use FP [31]. This demonstrates that information about FP is important for the prevention of unintended teenage pregnancy. However, there is no mention of FP in the curricula of sexuality education-related lectures in Kenya, such as Biology, Christian Religious Education, and Life Skills [30]. Hence, even the teachers who understand the importance of FP were hesitant to provide FP-related information to their students, considering that the parents have negative attitudes towards FP. In contrast, the National Adolescent Sexual and Reproductive Health Policy states, "Enhance existing service provision channels to provide accurate information and services on a wide range of contraceptive methods to capture diverse needs of adolescents," as a strategy to achieve the policy objective [15]. Although the policy targets implementing activities within the health system and not in schools, collaboration between the MOE and MOH is required to achieve synergy by providing the same information in different settings, and consolidating knowledge by providing consistent information to prevent unintended teenage pregnancy and its adverse consequences.

Teenagers also have limited opportunities to obtain information on FP outside school. The common perception of infertility due to FP in this study was also found in previous Kenyan studies [17–20]. Meanwhile, no IDI participant mentioned such a concern in this study. This implies that they were unaware of such a perceived side effect, unlike adults in the community, because they did not receive information about FP because of adults' concerns about infertility, freedom of sex by promoting FP, and cultural taboos. The idea that encouraging sexual freedom by promoting FP was also found in previous Kenyan studies [19, 20], whereas evidence shows that promoting FP does not have such a promotional effect [32, 33]. A study conducted in five African countries, including Kenya, suggested interventions for training health workers and CHVs where the misconceptions of FP was significant [34]. Such interventions may also change health workers' attitudes towards FP to improve accessibility. Comprehensive sexuality education (CSE) in a culturally appropriate way should be explored because sexuality education contradictory to cultural norms can cause delays in intervention implementation, as a study has shown [35].

Teenagers from low socio-economic backgrounds were particularly vulnerable to unintended pregnancies in this study, as they are easily exploited by men who can afford to provide for some of their basic needs. This study commonly reported that items such as clothes, sanitary napkins, and shoes were bought with money from partners. These relationships, referred to as transactional sex, differ from sex work and are considered non-commercial; they often involve emotional closeness that is not necessarily directly linked to a sexual relationship [36]. The characteristics of transactional sex can vary depending on the situation and context, and this type of relationship involves receiving support, such as money or gifts from a partner in an implied relationship based on gender roles expectations for men and women [36]. A systematic review and meta-analysis revealed an estimated 12.55% of the pooled prevalence of transactional sex among women in SSA and associated factors: educational level, number of parents, alcohol use, substance abuse, early sexual debut, previous sexual experiences, physical violence, and sexual violence [37]. Comparably, a study conducted in Western Kenya found that girls aged 16–18 reported that some sought from their partners what their parents could not provide, and that these relationships can lead to pregnancy and subsequent school dropout [38]. Having sex to satisfy basic needs is also a common idea among teenagers in rural Tanzania. Meanwhile, money is mostly for their upkeep, including basic needs, among the participants in this study, but not for supporting the family or taking care of their siblings, as perceived in a previous study [39]. In this study, 9 of the 13 participants who were asked if they had received money from their partners reported they had, while four mentioned it as the main reason for their relationships. However, as shown by a study conducted in rural South Africa, understanding the reasons for having a relationship is complex because money or gifts from partners can be perceived as symbols of girls' values or better things if they can get them, despite emotional attachment [40]. Another study from Zambia found that transactional sex is the main reason for pregnancy among girls aged 15–19, and such a relationship puts girls at a disadvantage when making sexual behavior decisions. The study identified a significant positive association between transactional sex and first pregnancy among unmarried girls aged 15–19 [41]. Studies assessing the impact of interventions on transactional sex are limited. Among the few, a study from Zimbabwe showed that the group that received a more comprehensive intervention, which included vocational training, microgrants, and social support, had statistically reduced food insecurity and increased income among aged 16–19 female orphans. The same study revealed that over time, the intervention group had a lower chance of transactional sex and a higher usage rate of condoms with partners [42]. Clearly, interventions for girls'

economic empowerment may reduce the risk of having early sexual intercourse. Therefore, the need to address financial challenges to prevent unintended teenage pregnancy is a major premise. However, given that girls who had never become pregnant despite receiving financial support from their partners had experience using FP methods, such as condoms and emergency pills in this study, it is also necessary to provide FP information to vulnerable teenagers from low socio-economic backgrounds. Even after pregnancy, three teenage mothers in this study did not receive any updated information from anyone. Addressing lack of knowledge on FP for teenage mothers also requires urgent attention, as some IDI participants maintain relationships with their partners. Moreover, teenage mothers may look for another partner as an income source because of the current difficult financial situation. Since all participants had attended at least one ANC, health facilities should provide them with information about FP to reduce additional risks as they are already sexually active.

Regarding the influence of unintended teenage pregnancy on teenage mothers' lives, the 19 cases were classified into four categories: (1) dropping out of school, (2) financial challenges, (3) changing relationships with parents, and (4) no major influence. In this study, unintended teenage pregnancies negatively influenced most participants. Similar findings were presented in a study conducted in Ghana that explored teenage mothers' experiences, which found educational, financial, and psychosocial challenges, including parents' reactions to their pregnancy [43]. This study's findings are also similar to those of a Kenyan study exploring new mothers' experiences, which mentioned that the psychological burden persisted because of being a single mother, lack of partner support, and poverty among new mothers [24]. This study included those who experienced teenage pregnancy several years ago; however, it found that the current situation is still similar. This demonstrates that such negative situations may not change easily. Unlike previous studies, this study found two cases (Case Nos. 17 and 19) that perceived no major influence of unintended teenage pregnancy on their lives although most participants shared their negative perceptions and experiences. Understanding why these two teenage mothers managed their pregnancies without major negative influences is important when considering interventions to mitigate the adverse consequences of unintended pregnancies. From their descriptions, four factors helped mitigate negative influences: continuing education, supportive parental attitudes, positive perceptions of the relationship with the child's father, and having future perspectives.

In this study, thirteen IDI participants ended relationships with their partners because of their irresponsibility. However, the continuation of the relationship with their partners does not always mean that they receive support. Therefore, regardless of whether the relationship is over, how teenage mothers perceive their relationship with the child's father may influence their attitude towards the current situation. For example, one participant who perceived no major influences of her pregnancy, ended a relationship with her partner because he denied the pregnancy and left her. However, she perceived that she could focus on studying more than when she had been dating him, and did not have a negative perception of the current relationship with him.

Another factor is having future perspectives. Since only these two IDI participants reported further goals or dreams for the future when asked about their future plans, it may motivate teenage mothers to maintain an attitude of acceptance towards the pregnancy. Continuing education is important to meet such expectations. Considering the high rate of attendance at schools or learning institutions in Kericho County, which is 98% for primary schools and 94% for secondary schools [27], dropping out of school is a major concern as an adverse consequence of unintended pregnancies among teenagers. Concerns about dropping out of school may lead to abortions by unsafe methods as one teenage mother (Case No. 8) thought of abortion to continue her education. Based on the collected information, school reentry policy guidelines for pregnant students were implemented at the study sites' schools. When participants discovered their pregnancies, they received advice from their teachers on continuing their education, avoiding abortions, and attending the ANC. However, in this study, 8 out of the 19 participants of IDIs dropped out of school due to the pregnancy and, three had not yet returned but had the intention to return. Regarding policy implementation, some aspects, such as responsible male's identification, seemed to be poorly implemented. Although the teachers knew the partner for some cases, no specific action was mentioned for the student, and it may be difficult to follow up and report if the partner is out of school. In addition, the approaches to the parents of the girls who became pregnant varied depending on the school. Some schools had a clear attitude and described how they convinced parents to allow their children to continue with their education. However, other schools did not even know the exact number of girls who became pregnant and dropped out. These two aspects require further work because they may influence all other factors in mitigating the negative influences of unintended teenage pregnancy by changing partners' and parents' attitudes, and not just

for the continuation of education. However, schools may find it difficult to address these issues by themselves. At the study site, most people were engaged in farming and manual labor, and their socio-economic status was low. In some cases, if teenagers' mothers have to take care of their grandchildren to return their daughters to school, they are likely to have reduced engagement in manual labor, which may worsen the economic situation at home. Interventions, income-generating activities, and vocational training for teenage mothers to acquire skills can mitigate the negative influences of unintended teenage pregnancy by improving their income, as shown in a study [44]. This may also ease teenagers' mothers' perceptions of the burden of their daughters' pregnancies, thereby easing their harsh attitudes towards their daughters.

Study imitations

First, a selection bias may exist in the recruitment process. Specifically, many pregnant women attended health facilities outside the study site, and recruitment based on the ANC list was not feasible due to the unavailability of address data for each client at the study site's health facilities. Therefore, participants for the IDIs were recruited through referrals from CHVs and village chiefs. Consequently, there is a possibility that the CHVs and village chiefs selected teenage mothers who were in contact with them, potentially excluding those who could not access health facilities or who concealed their pregnancies. Second, due to time and cost constraints, we were unable to include a sufficient number of teenage girls who had never experienced pregnancy in the KIIs. While the study identified commonalities between teenage girls with and without pregnancy experience, such as receiving financial support from partners or starting relationships for financial reasons, notable differences were also observed. For example, none of the 19 teenage mothers had used FP before their pregnancies, whereas the teenage girls who had never experienced pregnancy had used emergency pills and condoms. Conducting research with a larger sample of teenage girls who had never experienced pregnancy would likely provide clearer insights into the impact of FP promotion. Third, this study focused on teenage mothers' experiences, and did not include their partners' experiences or perceptions. To propose appropriate interventions, future studies should explore boys' perceptions of FP to understand its acceptability, perceptions of teenage pregnancy, and risk awareness. Indeed, the study findings show that male partners who impregnated teenage girls denied the pregnancies and were not responsible in most cases, which puts teenage mothers in a more vulnerable situation.

Conclusions

Based on teenage mothers' experiences, this study explored the reasons for unintended teenage pregnancy and its influences on teenage mothers' lives. The findings showed that most participants lacked knowledge and awareness of the human reproductive system and FP before becoming pregnant. Cultural norms and stereotypes, such as "infertility caused by FP," "freedom of sex by promoting FP," and "cultural taboos on having sex before marriage and talking about sexuality," were significant barriers to providing SRH information, such as pregnancy and FP, to teenagers. In addition, participants from low socio-economic backgrounds were particularly vulnerable because they had relationships with men who can afford to provide for some of their basic needs. In this study, most participants had negative influences of unintended teenage pregnancy. Dropping out of school, financial challenges, and changing relationships with parents were the negative influences. Despite most study participants being negatively affected by unintended pregnancy, this study found two cases that perceived no major influence of unintended teenage pregnancy. Continuing education, supportive parental attitudes, positive perceptions of the relationship with the child's father, and having future perspectives were factors in mitigating the negative influences.

Strengthening culturally appropriate CSE and the school re-entry policy with a supportive environment may prevent unintended teenage pregnancy and mitigate its negative influences. As financial challenges can be both a reason for and a negative influence of unintended teenage pregnancy, economic empowerment interventions are required.

Supplementary Information

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Author contributions

RH, KM, AI, and LN designed the study; RH corrected the data; and RH and KM conducted data analysis and interpretation. RH, KM and AI wrote the initial draft of the manuscript. All authors have read and approved the final manuscript.

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Data availability

No datasets were generated or analysed during the current study.

Ethics approval and consent to participate

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Consent for publication
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Competing interests
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