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# “Unintended pregnancy and attitudes towards sexual and reproductive health among young people in Benguela Province, Angola”

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## Abstract

**Background** Young women (YW) in Angola face multiple, intersecting challenges related to sexual and reproductive health (SRH), including high rates of early and unintended pregnancy, limited access to contraception, gender-based violence (GBV), and unsafe abortion. These issues are shaped by structural inequalities, restrictive laws, stigma, and inadequate youth-friendly services. Despite the urgency, qualitative research exploring youth perspectives on SRH in Angola remains scarce.

**Methods** This qualitative study was conducted in May 2023 in Benguela Province, Angola, as part of the formative phase of the [Anonymised] project. Four focus group discussions (FGDs) were held with 27 young people aged 18–25, stratified by sex and setting (urban Lobito, rural Cubal). Participants were purposively selected to ensure diversity of background and recruited through civil society networks. Discussions followed a semi-structured guide and were analysed using thematic content analysis, integrating systems thinking and Bronfenbrenner's ecological model.

**Results** Participants identified early pregnancy as the most pressing concern, frequently linked to stigma, misinformation, social pressure, and lack of confidential services. Contraceptive use was limited by fear, myths, and gender dynamics, with abortion often emerging as a stigmatized but common response to unintended pregnancy. Testimonies revealed four “Itineraries of Reality” (IR): [1] abortion as moral crime [2], clandestine abortion as escape [3], forced continuation of pregnancy, and [4] an aspirational path toward safe, legal abortion. These trajectories were embedded in two “Vulnerability Circuits” (VC): unsafe abortion and intergenerational poverty. However, two Exit Strategies (ES)—social activism and legal-health system reform—and one Empowerment Pathway (EP) linked to youth-led associations and community spaces emerged as means of resistance and resilience.

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**Conclusions** Young people's SRH decisions in Benguela are shaped not only by individual attitudes but by social norms, gender inequality, systemic barriers, and restrictive policies. Early motherhood often reflects constrained agency rather than choice. Addressing these issues requires expanding SRH education and services, decriminalizing abortion, and strengthening youth empowerment mechanisms. Findings support the design of rights-based, context-sensitive interventions rooted in young people's lived realities.

**Keywords** Sexual and reproductive health, Young people, Unintended pregnancies, Contraception, Unsafe abortion, Vulnerability, Gender norms, Angola, Qualitative research.

## Background

Young women (YW) in Angola face multiple, interrelated challenges concerning sexual and reproductive health (SRH), including high rates of sexually transmitted infections (STIs), limited access to contraception, gender-based violence (GBV), early and unintended pregnancy, and unsafe abortion practices [1–3]. HIV is also a significant concern, particularly among adolescent girls and YW, who are disproportionately affected due to a combination of behavioural vulnerabilities and structural inequalities. These issues are further exacerbated by a lack of youth-friendly SRH services, widespread stigma, and insufficient comprehensive sexuality education in schools [4, 5].

Globally, sixteen million adolescents experience unintended pregnancy each year, with Sub-Saharan Africa (SSA) disproportionately affected. Angola ranks among the highest in adolescent fertility with 46.6% of YW (aged 18–24) reporting unintended pregnancies, nearly double the SSA average [6].

These pregnancies often interrupt education, limit opportunities, and reinforce cycles of poverty and exclusion [7]. Adolescent motherhood is also associated with poor birth outcomes such as low birth weight and pre-term birth [8]. Abortion decisions are shaped by a range of personal factors including education, marital status, culture, media exposure, and experiences of violence [9], with gender inequality and intimate partner violence further exacerbating SRH risks [2]. Despite limited legal exceptions (rape, maternal risk), access to safe abortion in Angola remains restricted by law and stigma (Lei n.º 38/20) [10, 11].

Angola's Human Development Index (HDI) remain among the lowest globally. Social determinants like education, place of residence, and income strongly influence fertility. The median age at first sex is 16, and first child-birth typically occurs by 19.5. Early motherhood is most prevalent among girls with no education (58%) compared to those with higher education (25%) [12, 13]. For every 1,000 live births, approximately two women die during pregnancy or postpartum [1]. To address these challenges, the [Anonymised] Project was launched in Benguela to improve the knowledge, attitudes, and practices (KAP) related to SRH among young people in Benguela province. These patterns reflect not individual decisions

alone, but structural inequalities, cultural norms, and lack of SRH services, addressing key challenges such as STIs, GBV, unintended pregnancies, and unsafe abortions [14, 15].

This qualitative study was conducted as part of the project's formative phase. Its objective was to explore young people's perceptions, identify key SRH concerns, and analyse the social and structural factors influencing their reproductive behaviours in a context of high adolescent fertility and restrictive abortion laws.

While the study acknowledges broader SRH concerns such as access to contraception and education, its primary focus lies in exploring young people's experiences with unintended pregnancy and their attitudes toward pregnancy continuation or termination in a legally and socially restrictive context.

There is a notable lack of qualitative research on youth SRH perceptions in Angola, particularly in Benguela [9, 16–18]. This study contributes to filling that gap and underscores the need for context-specific evidence to inform the design of effective, youth-centred interventions.

## Data and methods

This qualitative study was conducted in May 2023 in Benguela Province, Angola, during the formative phase of the [Anonymised] project, which aims to improve SRH knowledge, attitudes, and practices (KAP) among young people aged 18–25. The objective was to explore youth perceptions, concerns, and the social and structural factors shaping SRH-related behaviours.

Fieldwork was conducted in two contrasting municipalities: Cubal, a rural inland town with limited SRH services, and Lobito, an urban area with greater infrastructure. These sites were purposively selected to capture geographic, social, and infrastructural diversity.

FGD (Focus Group Discussion) method allowed us to observe interactions and capture collective views to understand how youth perceive and navigate sensitive issues like unintended pregnancy, contraception, and abortion.

## Sampling and recruitment

We conducted a total of four FGDs, one with YW and one with young men (YM) in each location (Cubal and

Lobito). Each group consisted of six to eight participants, totalling 27 individuals: (1) eight women from urban area (Lobito), (2) seven women from rural area (Cubal), (3) seven men from rural area and (4) six men from urban area. All participants were aged between 18 and 25 and were selected using purposive sampling to ensure diversity in gender, geographic origin, marital and parental status. Educational level was not used as a selection criterion, but was documented to reflect participant diversity.

Fifteen participants (56%) were women, and the majority had completed secondary or high school education ( $n = 25$ ; 93%), with only two participants having reached post-secondary or university level. The median age was of 23 in urban groups and 21 in rural groups. Five participants were parents: three women (two from Lobito and one from Cubal) and two men (both from Cubal), while the remaining 22 participants had no children.

Young adults were recruited through snowball sampling, with support from key informants in local civil society organizations involved in the [Anonymised] Project. Informants, such as youth coordinators, identified or referred participants aged 18–25 from both municipalities. Eligible participants had to be able to express themselves freely and spontaneously in a group setting. None

of the FGD participants had a prior personal relationship with other members of their discussion group.

Data collection

FGDs lasted 75–90 min, were conducted in Portuguese in safe community settings, and followed a semi-structured guide covering: [1] perceptions of early and unintended pregnancy; [2] attitudes toward abortion and motherhood; [3] access to and use of contraceptive methods; [4] perceptions of SRH services and barriers to care; and [5] influence of stigma, religion, and gender roles.

Each group was facilitated by a trained moderator of the same gender as participants, assisted by a co-facilitator. A research team member observed each session to monitor dynamics and ensure ethical oversight. Discussions were audio-recorded with informed consent, transcribed verbatim, and anonymised to protect confidentiality.

The study received ethical approval from the Ministry of Health of Angola (MINSA) (n°14/2021), and all participants provided written informed consent.

Data analysis

The analysis combined systems thinking [19–21] and Bronfenbrenner’s ecological model [22] to explore how individual behaviours, social norms, institutional practices, and policy frameworks interact to shape SRH outcomes.

A thematic content analysis approach [23] was performed using a combination of deductive and inductive strategies. Two researchers independently coded a sample of transcripts using ATLAS.ti and refined categories through iterative comparison. Discrepancies were resolved by consensus and themes were validated by the wider research team, including local facilitators. To create more refined themes, the codes that represented similar interpretations were merged. Finally, illustrative quotations were selected to represent each major theme, with brief descriptions provided to clarify the meaning and scope of each theme as used in the analysis. This information is summarized in Table 1.

Results

Participants identified four main SRH concerns: contraceptive methods and abortion, early pregnancy, STI, and GBV. Although no participant was under 18 years old at the time of the study, we did not explicitly ask whether their pregnancies or parenthood had occurred during adolescence. However, the topic of early pregnancy emerged spontaneously in several FGD, particularly in references to friends, siblings, or their own past experiences. These narratives suggest that adolescent pregnancy remains a salient and personal concern for many participants.

Table 1 Description of thematic codes used in the analysis

Theme	Description
Contraceptive methods and abortion	Refers to young people’s knowledge, access, attitudes, and experiences related to modern contraceptive methods, as well as views and experiences concerning abortion, including legal, moral, and social dimensions. Treated as a single code due to their frequent overlap in participants’ narratives as interconnected reproductive choices.
Early pregnancy	In this study, the term refers not only to adolescent pregnancies (under 20 years) but also to unintended or socially premature pregnancies among YW up to age 25. This broader framing reflects local perceptions in which early motherhood, regardless of biological maturity, can carry significant social and economic consequences, particularly regarding education, employment, and autonomy.
STI	Covers awareness, prevention practices, stigma, and experiences related to STIs, including HIV.
GBV	Refers to experiences or perceptions of violence based on gender, including coercion, abuse, or fear.
Gender equality	Covers youth reflections on gender roles, rights, equity in relationships, and SRH decision-making.
Culture and religion	The theme captures the influence of cultural norms, traditions, and religious beliefs on young people’s SRH decisions and behaviours.
Access to health services	Refers to the availability, affordability, quality, and acceptability of SRH services, including structural and social barriers to access.
Education, information and knowledge	Sources, quality, and accessibility of SRH education, both formal (schools) and informal (peers, media).

Contraceptive methods and abortion were grouped together because participants often discussed them as interrelated, abortion was frequently described as a consequence of contraceptive failure or lack of access. This thematic grouping reflects how the issues emerged in the discussions. This information is summarized in Fig. 1.

Themes included in the analysis were either frequently mentioned or clearly identified as relevant by participants.

Contraceptive methods and abortion emerged as the most frequently referenced theme overall, particularly among urban YW (71 mentions), followed by urban males [24] and rural males [25]. Although rural females referred to this theme slightly less (30 mentions), their contributions still highlight its centrality.

Although contraception dominated the discourse, early pregnancy was identified as the main SRH concern by all groups, particularly urban males (41 mentions), highlighting its perceived relevance across diverse contexts, despite fewer mentions by rural and female participants.

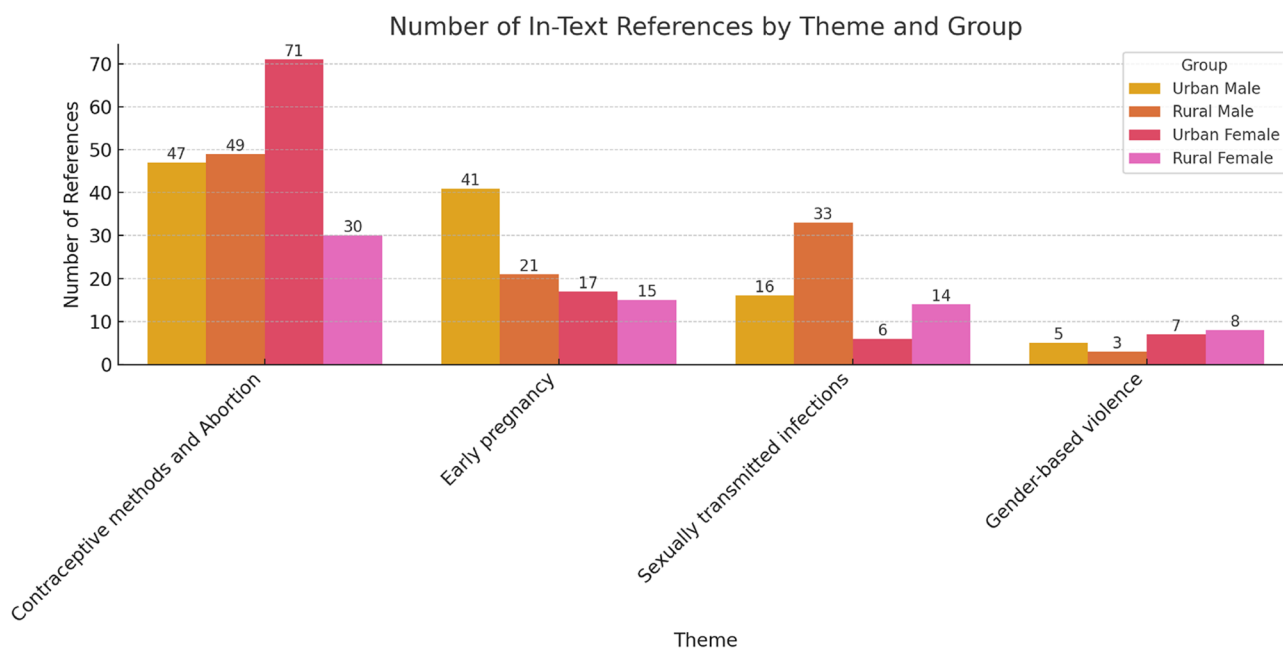
With regard to STIs, rural males stood out with 33 mentions, more than twice that of any other group, possibly indicating heightened concern or awareness of risk in this subgroup.

In contrast, GBV received fewer explicit mentions, with a maximum of 8 references among rural females. However, as frequency of mention does not necessarily equate to thematic importance, it is essential to interpret these figures with caution. Sensitive issues like GBV may be underreported due to stigma, fear, or discomfort in group settings. These topics warrant deeper exploration through more discreet qualitative methods.

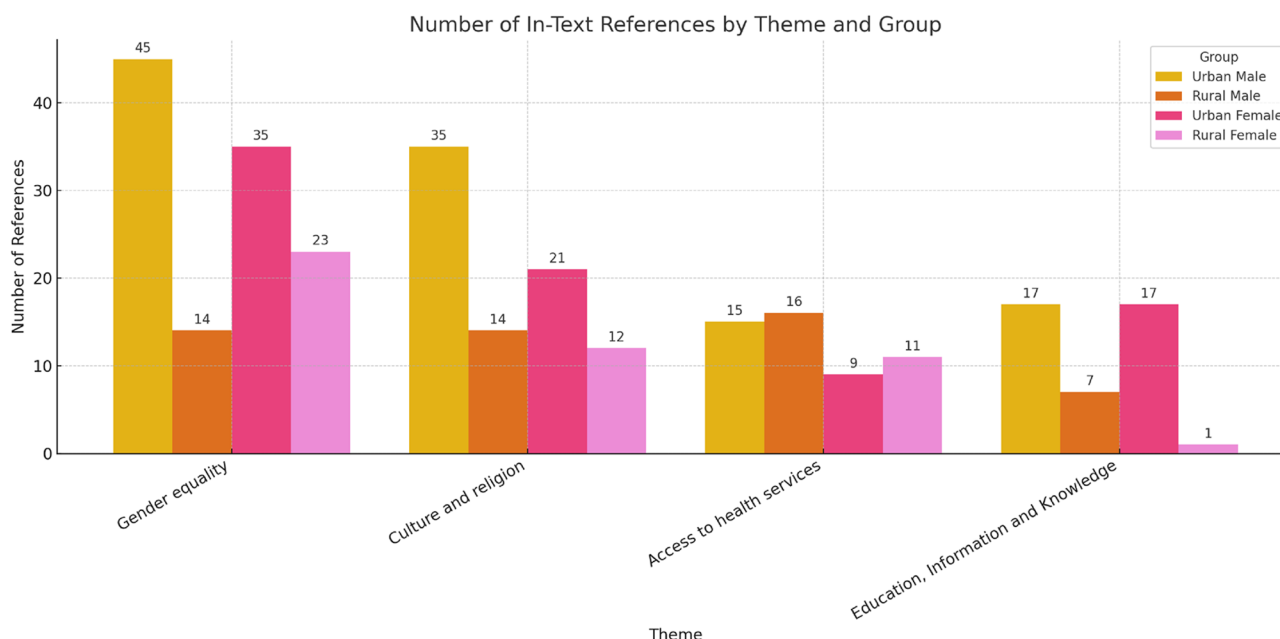
Four central themes emerged from the analysis as factors influencing SRH: gender equality, culture and religion, access to health services, and education, information and knowledge. Figure 2 describes the main factors influencing SRH.

Clear differences emerged between urban and rural participants. Gender equality was the most referenced among them (117 mentions), with nearly equal engagement from male [26] and female participants [27]. Within this theme, urban males (45 references) stood out as the most vocal group, potentially reflecting exposure to diverse perspectives in urban environments. Culture and religion also received substantial attention (82 mentions), especially from urban males [28] and rural males [13]. While female participants mentioned it less frequently, this does not imply lesser importance but rather reflects the distribution of discourse across groups. Access to health services was highlighted in 51 instances, with rural males [15] making the most references. This theme's presence in the analysis underlines its perceived relevance, especially in rural contexts. Education, information and knowledge was cited 42 times, the least among the four—but still significant within the overall qualitative analysis. Mentions came primarily from urban participants, with very limited references by rural females [1]. Again, this should not be interpreted as a lack of importance, but rather as a reflection of how different groups voiced their concerns or experiences.

Rural participants were generally less expressive and required more prompting. Gender differences were also evident: YM participated more actively, while YW were more hesitant, likely due to persistent gender norms and



**Fig. 1** Main concerns about SRH among adolescents in Benguela. Number (N) of mentions



**Fig. 2** Number of mentions of key factors influencing sexual and reproductive health (SRH)

stigma, despite efforts to ensure comfort through gender-matched facilitators.

### Qualitative findings

Participants consistently identified early and unintended pregnancy as the most pressing concern in their communities. This was acknowledged across all groups:

*“... It’s normal here in Angola” (female, urban).*

*“...I have a neighbour, I think she must be about 15, and she’s a mother (...).” (male, rural)*

Early pregnancy was described not only as common but also deeply disruptive. Several participants highlighted its psychosocial and developmental consequences, especially for girls:

even in cases of rape or emotional distress.

Although GBV was not often named explicitly, several testimonies implied experiences of coercion and sexual violence, which were frequently minimized. Abortion was rarely seen as acceptable. Instead, YM emphasized psychological support or adoption as alternatives:

*“...She should receive (psychological) assistance to continue with the baby...” (male, urban).*

*“...They don’t have to abort them ...send the child away from her, because it will be difficult... she’ll remember what she’s been through” (male, rural)*

*“...In the African vision, reproduction is seen as something divine, it cannot be interrupted.” (male, urban).*

This reflects strong moral and cultural resistance to abortion, especially among male participants.

Social pressure, misconceptions, fear of infertility and religious beliefs are significant barriers to accessing contraception and safe abortion services. These barriers are compounded by systemic limitations in the availability and accessibility of contraceptive methods. Participants, particularly YW, described a social environment where contraceptive use is stigmatized or misunderstood, leading to increased risks of early pregnancy or unsafe abortion. Many girls face intense social pressure to avoid using contraception, which increases their risk of experiencing unsafe abortions or early pregnancies.

Condoms were the only contraceptive method explicitly mentioned by participants, often associated with ambivalence and low use, indicating a potential gap in awareness about their protective function beyond pregnancy prevention.

*“...Most of the time we don’t use [condoms]... and that’s the cause of the high rate of early pregnancies...” (female, urban).*

*“...I don’t want to use a condom because it gives me allergies... I don’t like it...” (female, urban).*

Other methods such as pills or injectables were not discussed, which may reflect limited awareness or access. In some testimonies, abortion appeared as a response to unintended pregnancies, suggesting it may be perceived by some as a substitute for contraception in contexts where regular use of methods is not normalized.



Rural women associated abortion with danger and future infertility:

*“...Abortion is life-threatening... we’re going to become mothers without children, aren’t we?”  
(female, rural).  
“...You’ve spoilt yourself with so many abortions.”  
(female, rural)*

This discursive link helps explain why participants referred to contraception and abortion together, as part of a continuum of strategies to manage fertility amid significant structural and social barriers. Among rural males, alternative methods like fidelity were framed as more acceptable or effective:

*“I agree when he says that fidelity is the most effective method. (male, rural)*

This quote refers to mutual monogamy within a committed relationship as a strategy to prevent both unintended pregnancy and STIs. This suggests reliance on traditional moral frameworks over biomedical strategies. It also illustrates how gender norms, misinformation, and stigma converge to limit young people’s ability to make informed and autonomous reproductive health decisions.

Finally, systemic barriers, such as limited access to youth-friendly services, lack of confidentiality, and reliance on external interventions, were repeatedly noted, especially in rural areas, where service provision is scarce and often dependent on external interventions or personal contacts:

*“...If there are no project activities, it’s more difficult... there’s no access to condoms in health centres.”  
(male, rural).  
“...Getting a condom is really difficult...without personal contacts, it’s almost impossible.” (male, rural).*

### **Navigating reality: conceptual model for YW in Benguela**

Based on the participants’ narratives, a conceptual model was developed to represent the lived experiences of YW facing unintended pregnancy in Benguela. The model includes four Itineraries of Reality (IRs), grounded in two Vulnerability Circuits (VCs) and linked to two Exit Strategies (ESs) and one Empowerment Pathway (EP). Early pregnancy emerged as the shared starting point across all trajectories.

By IR, we mean the description of possible scenarios that YW may face in the event of an unintended pregnancy. They are grounded in VC that shape personal experiences, decisions, and behaviours on SRH. ESs are alternatives that allow some YW to interrupt VC. In this

scenario, EP is a transformative trajectory where YW gain autonomy and decision-making power often linked to sustained supportive environments. The model developed is described in Fig. 3.

### **IR1: abortion as a crime against life that destroys traditions and cultural values**

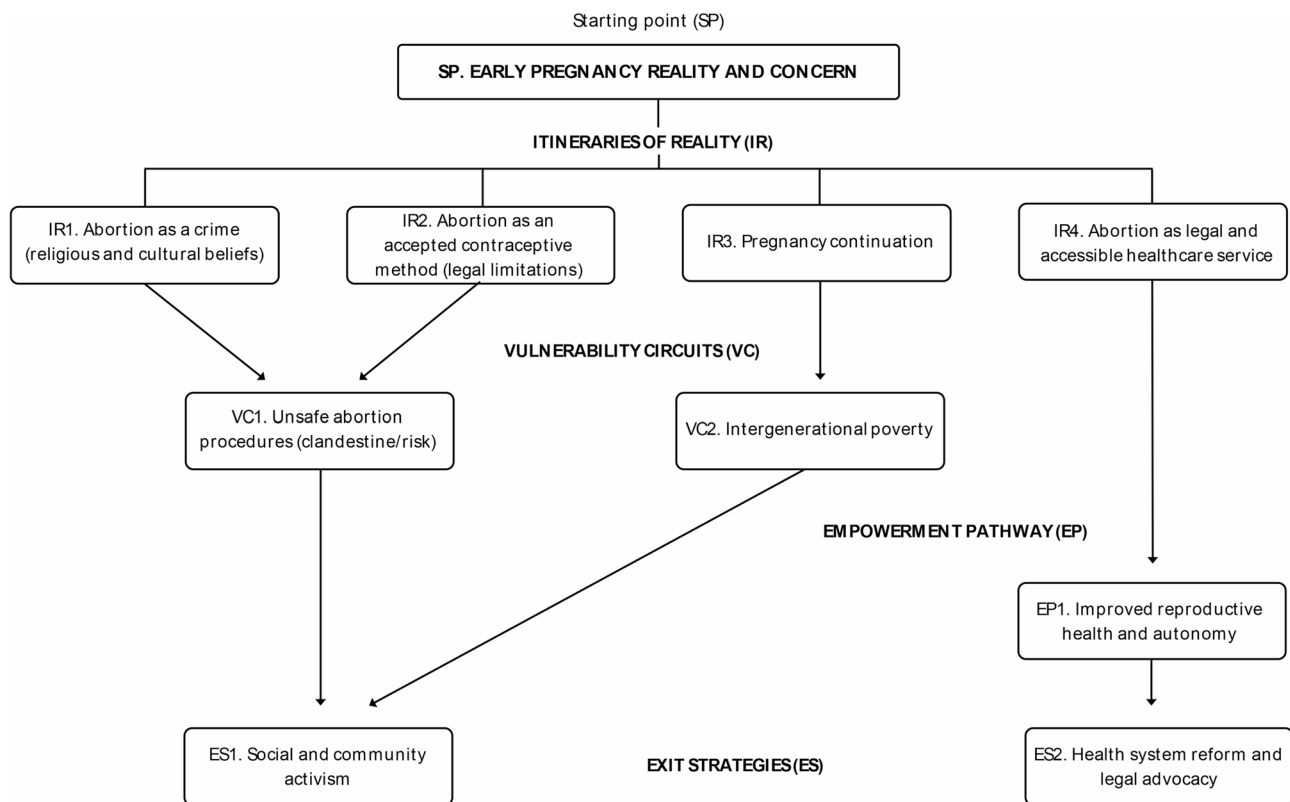
Abortion was commonly framed as morally and legally unacceptable, particularly by YM, reflecting religious doctrine and cultural norms that equate abortion with sin and the destruction of life. This view, rooted in both law and social norms in Angola, where abortion is legally restricted and only permitted in cases of risk to the mother’s life or rape, significantly limits YW’s autonomy and decision-making capacity regarding pregnancy.

The widespread stigma attached to abortion constitutes a major barrier to family planning in Angola [29], undermining YW’s SRHR (Sexual and Reproductive Health and Right) and limits their autonomy to make informed decisions about their reproductive lives, often pushing them toward unsafe and clandestine procedures. Furthermore, the attitudes of YM often act as an additional layer of restriction, preventing women from exercising independent decision-making and exposing them to significant health risks [30].

*“...Abortion is a crime.” according to our law. In the law it’s a crime. you’ve taken a life.” (male, rural).*

The high level of religiosity in both YM and YW is linked to more negative attitudes towards abortion, often resulting in complete disapproval of pregnancy termination, even in cases where it is legally permitted, such as rape or risk to the mother’s life [31]. Religious and cultural norms framed abortion not only as morally unacceptable but, in some cases, as a “crime” against both the unborn child and the divine order. This perception persisted even when participants acknowledged the traumatic circumstances of conception. Although GBV was not always explicitly named, several testimonies pointed to rape and coercion as existing realities, often minimized or normalized within their social context. In these narratives, legal frameworks permitting abortion in such cases were overshadowed by religious teachings and community norms that demanded pregnancy continuation regardless of circumstances:

*“...Killing is a sin, yes. But also we would have at least one. it would be a bit flexible in other cases even” (male, rural)  
“...Even I think that a woman who has been raped must give birth” (female, urban)*



**Fig. 3** A model of early pregnancy outcomes of young women in Benguela. Relationship between itineraries of reality (IR), vulnerability circuits (VC), exit strategies (ES) and Empowerment Path (EP)

This highlights the complex interplay between legal rights, social norms, and personal beliefs, and underscores the urgent need to integrate GBV prevention and response mechanisms within youth-centred SRH interventions. While these same religious and cultural frameworks often reinforced restrictive views—leading to abortion being perceived as morally unacceptable or even a “crime”—participants also described religion as a protective force, guiding young people toward abstinence, responsibility, and family values. This dual influence reflects the simultaneous role of religion in both limiting and safeguarding SRH decision-making.

*“...A child who always goes to church... He’ll try his best not to make a mistake, because God or the law tells him to, and that helps.” (female, urban).*

Family and education also emerge as protective elements in the face of a future lack of opportunities that can support healthier sexual relationships, which are central elements of SRH [32].

*“...Education at school helps so much, a person who has studied is different from someone who hasn’t. Scientific and moral education makes a big differ-*

*ence to the personality of young teenagers.” (female, urban).*

#### IR2: clandestine abortion as a risky escape route

YW in Benguela province are more likely to use clandestine abortion methods, leading to devastating consequences such as sepsis, severe anaemia, disabilities, and, in some instances, infertility and death [33]. They are performed without legal provision, often alone, and using friends or partners for support [34]. It is common for young women seeking a clandestine abortion to go to the town square, where they can purchase over-the-counter medications intended to induce termination of pregnancy. This evidences the normalization of unsafe abortion practices among female youth. The use of pharmaceuticals such as metronidazole and tetracycline, referred to colloquially as “metro” and “tetra”, has become widespread as a perceived means of pregnancy termination among female youth.

*“...They drink a metro with soda.” (female, urban).*

*“Metro costs fifty, tetra maybe a hundred... and they’ll take it away.” (female, rural).*

YM, by contrast, showed little knowledge about these methods:

*"...They break glass and ingest the pieces to cause an abortion. s... can't it cause serious harm to the person" (male, rural).*

Clandestine abortion practices create uncertainty and fear, can also lead to complications highlighting the need for legalization and availability [35, 36].

*"...Nowadays, ending a pregnancy is a normal thing for children. You'll find children 12, 11 years old who have already done it. I think it's a very risky thing because they say it brings pain and. sometimes you won't be able to abort." (female, rural).*

Despite awareness of these risks [37] both YW and YM in Benguela province continue to consider clandestine abortion a viable response to unintended pregnancy, often in order to escape poverty and social stigma.

The normalisation of unsafe practices underscores VC1: the Unsafe Abortion Circuit, driven by lack of information, stigma, and legal constraints.

*"...It's a problem because it breaks dreams... Early pregnancy hides development within society. If a 14-year-old gets pregnant, sometimes she's just in 7th grade... she can't continue studying, then she breaks down." (male, rural).*

YM's involvement plays a critical role in abortion decision-making. Male participants described a YW's decision to terminate a pregnancy as strongly influenced by her partner's support, the status of their relationship, and the attitudes of family and peers [38].

*"If the father didn't plan the pregnancy... the mother will be abandoned." (male, urban).*

Stigma from parents and peers further shapes YW's reproductive choices. Some families threaten to expel pregnant daughters from the home, while peers may downplay the risks, normalizing early pregnancy through their own experiences.

*"...You'll get pregnant, and you'll have to leave my house." (male, urban).*

*"...When one girl gets pregnant, she tells the others, 'Hey, I'm fine, I'm here.' Without realizing that while everything may go well for her, other problems could arise for others." (male, urban).*

### IR 3: continuation of the pregnancy as the only option

During the urban male FGD, the facilitator asked directly: 'If an underage girl was raped, do you think she would have the right to have an abortion?'

*"...she should be assisted to continue with the baby... until the expulsion period" (male, urban).*

Cultural views and values also play an important role in the attitudes and behaviours toward abortion among both YM and YW [28]. Cultural views equate having children with having wealth, and in some instances, abortion is blamed for destroying cultural values and traditions. YW in Benguela province are encouraged to marry and get pregnant, early [39].

*"...The African vision is from the perspective of reproduction. We see it as something divine that cannot be interrupted." (male, urban)*

*"...This is what Africans constantly. the more children I have, the more wealth." (male, urban).*

This trajectory illustrates VC2: The Cycle of Intergenerational Poverty, where YW lack resources, education, and agency to avoid early pregnancy and are trapped in structural disadvantage.

*"...If the mother is abandoned... the child may grow up influenced by criminals." (male, urban).*

### IR4. Safe abortion as a legal and accessible healthcare service

In our conceptual model, *Itinerary of Reality 4 (IR4)* represents a normative and aspirational scenario in which abortion is safe, legal, and integrated into the public health system. While this is not yet the reality in Angola, including IR4 in the model allows for reflection on the potential impact of rights-based approaches.

Although no participant explicitly called for the legalisation of abortion or the introduction of safe abortion services, several testimonies highlighted the health risks associated with clandestine procedures, indirectly pointing to the importance of safer options. As one male participant from a rural group explained:

*"...Something always happens after the fact, there are always consequences... either they die, or it gets very complicated. And they're aware. They're aware when they do it." (male, rural).*

These reflections reveal a shared awareness of the dangers of unsafe abortions, even among those who expressed moral or religious opposition to pregnancy termination. Within the IR4 scenario, individuals could access abortion care without stigma or legal risk, while



health professionals would be trained, equipped, and legally protected to provide these services.

In this hypothetical pathway, the integration of safe abortion into the health system would lead to an *Expected Pathway 3 (EP3)*, characterised by improved reproductive health outcomes and enhanced autonomy for women. IR4 also connects to *Exit Strategy 2 (ES2)*, which focuses on health system reform and legal advocacy to ensure that such services are both available and accessible.

#### **VC1: unsafe abortion circuit (related to IR1 & 2)**

Limited access to contraception, often due to systemic barriers like lack of education and comprehensive sexual education, can lead to unintended pregnancies. This, in turn, can increase the likelihood of unsafe abortions, which pose significant health risks to women and girls [40, 41].

This is particularly problematic in rural areas and close-knit communities where access to healthcare and confidential services is limited. The lack of intimacy and trust between young people and healthcare providers can further hinder their ability to access necessary reproductive health services. YW, in particular, are vulnerable to early or unwanted pregnancies due to financial and legal barriers in accessing contraceptives or safe abortion procedures.

This reality results from restrictive laws that only allow abortion in cases of rape or risk to the mother's life. The criminalization of abortion (Law No. 38/20), combined with stigma, creates an environment where SRHR are systematically violated [42].

As a result of this desperate situation, YW often resort to purchasing drugs in the town square without prescriptions, frequently following the advice of their peers [61]. While some are able to induce abortions at home, for others these methods prove ineffective. In such cases, they turn to trusted individuals in their communities who can facilitate alternative clandestine procedures, often under unsafe conditions and without medical oversights.

These practices place YW at significant risk of severe health complications resulting from unsafe abortion, including infections, bleeding, and long-term reproductive health issues.

*The physical consequences are often compounded by psychological distress, with some women experiencing depression and, in extreme cases, suicidal thoughts: "It's really difficult...it's sad, and they end up falling into depression. We still don't understand depression as a disease [...]That's why we're seeing people who can commit suicide"(female, urban).*

#### **VC2: intergenerational poverty and social reproduction of vulnerability (related to IR 3)**

Systemic barriers trap YW in a cycle of vulnerability that socially shapes the lives of future generations. Economic constraints, lack of education, belonging to a broken family, and lack of accessible health services hinder YW's ability to access effective contraceptive methods and safe abortion procedures when they need them. Consequently, these YW lack agency in their reproductive choices and often experience unintended early pregnancies.

This social determinism, in turn, perpetuates itself over generations. Children born to adolescent mothers are more likely to face similar situations, such as lack of economic resources or access to education. These children are at a higher risk of becoming victims of early pregnancy themselves, and continuing the cycle of poverty and limited resources, shaping the opportunities for future generations

*"...there are a lot of children on the streets, because if the father didn't plan the pregnancy, it's very likely that the mother will be abandoned." (male, urban).*

#### **ES 1: social and community activism**

Social and community activism emerged as a pathway for young people, particularly YW, in Benguela to break cycles of vulnerability and gain agency over their sexual and reproductive lives. This includes a range of initiatives which, although distinct in their approaches, serve complementary roles in providing support, guidance, advocacy, and structure for young people.

Within the broader category of social and community activism, we include both youth-led associations and religious communities, such as churches and religious leaders, who play an influential role in shaping norms and supporting young people. NGO activists are often involved in advocacy, peer education, and mobilization efforts to promote youth SRH and rights. Religious communities, by contrast, tend to provide moral and spiritual guidance while fostering values around abstinence and family support. Both groups, although distinct in approach, play a crucial role in shaping norms and providing support mechanisms for young people navigating SRH challenges.

#### **Youth associations: spaces of empowerment and opportunities**

In the province of Benguela, youth associations play a very important role in getting young people out of the cycle of vulnerability. They serve as a space of communion where young people from the same context meet to discuss their concerns, including SRH. Social connectedness through activism can improve adolescent SRH and reduce unintended pregnancy rates [43].

In a context marked by scarce educational and professional opportunities, youth-led associations and community initiatives allow young people to explore intellectual interests and develop personal agency. Youth activism programs foster increased self, social and global awareness while also teaching important skills like technical, interpersonal, and networking benefits [44].

*"...The normal thing that could be done is more lectures, talks, dialogues, talking to the community." (male, urban).*

Community engagement and local activism positively correlates with mental health and well-being, with some studies linking it to reduced health-risk behaviours [45]. Beyond SRH education, these spaces promote mental well-being and combat social isolation:

*"... I have no occupation. I'm a bit depressed. Because I have nothing to do." (female, urban).*

For some young people, particularly YW, a lack of opportunities and chronic hopelessness lead them to view early pregnancy as one of the few available paths to gaining identity, stability, or recognition especially in social contexts where motherhood is valued and may offer a sense of purpose. In the absence of education, employment, or supportive environments, pregnancy can appear as the only socially acceptable or meaningful option.

At the same time, low self-esteem and a lack of empowerment make many YW more vulnerable to coercion or to entering relationships where they cannot freely make decisions about their bodies or futures. In this context, community-based interventions can play a key role in building confidence and offering alternative life pathways.

*"...Some interventions have helped me to discover more about myself... to gain more experience and to help others, like young people who were in prostitution or dependency." (female, urban).*

Youth associations provide a supportive environment for young people in which they can develop autonomy, self-confidence, and feel empowered. At the same time, they highlight alternatives and opportunities focused on education and professional development.

*"...I'm already able to go places. With the experience I've received from activities. I won't have that feeling anymore. I'll feel at ease..." (female, urban).*

In rural areas, participants expressed different preferences, with many valuing radio programs as safer and

more socially acceptable channels to access SRH information without facing stigma.

*"...I would like the projects to do more radio programs to raise awareness..." (female, rural).*

### **Religious communities: values, limits, and protection**

Religion can act as a double-edge sword depending on how the individual interprets it. On the one hand, religion can be a protective or a risk factor in SRH. Religious groups offer moral orientation and community belonging, often promoting abstinence, fidelity, and emotional commitment in relationships:

*"...He'll do his best not to make a mistake, because God or the law tells him to, and that helps..." (female, urban).*

This spiritual grounding was seen by some as a protective factor, especially when combined with educational values:

*"...Scientific and moral education makes a big difference to the personality of young teenagers..." (female, urban).*

However, strong religious beliefs, particularly around abortion, can act as restrictive forces, reinforcing stigma and limiting access to safe reproductive health services.

*"...Abortion is a criminal offence.... Biblically it's a crime, killing is a sin." (male, rural).*

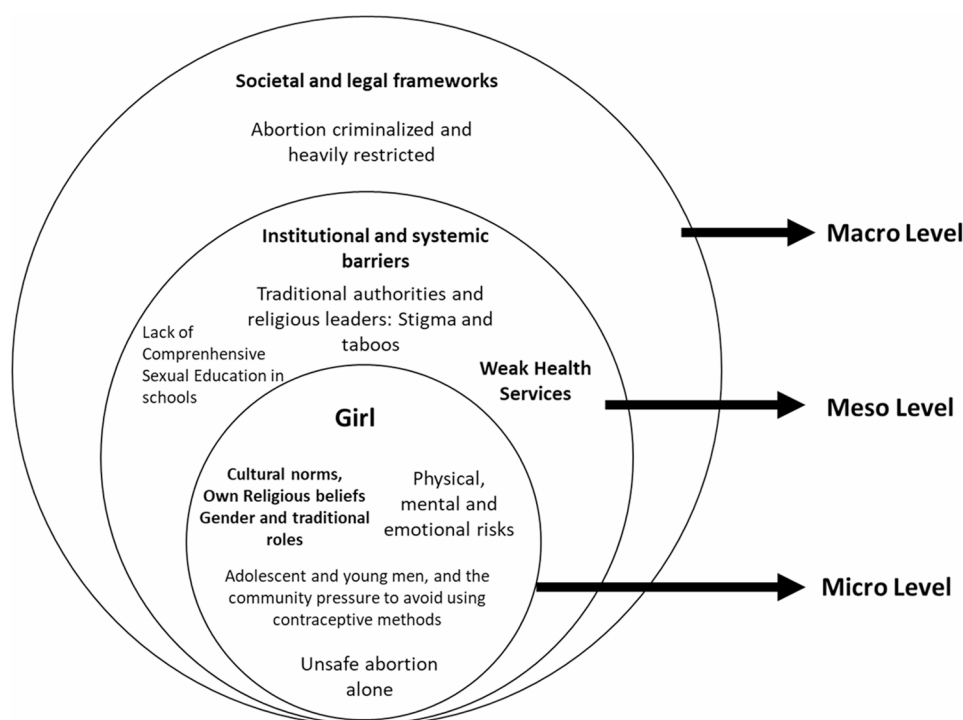
*"...If we abort, abort, abort...Then we'll live without children...my partner is going to worry about being in a relationship with me..." (female, urban).*

Combining youth-led initiatives and religious guidance, offers young people connection, identity, and support to navigate SRH decisions in a context of limited structural resources.

### **ES2: health system reform and legal advocacy**

This exit strategy focuses on structural responses designed to expand access to safe and rights-based reproductive healthcare. In the context of Angola, where abortion remains illegal except in very limited circumstances, this strategy points to the need for legal reform and health system strengthening. It includes advocating for decriminalization, ensuring provider protection, and aligning national policies with international human rights standards, thereby promoting autonomy and reducing preventable health risks.

The urgent need for reform is evidenced by testimonies such as that of a health professional, who described



**Fig. 4** Social structures that favour early and unwanted pregnancies in Benguela Province

the direct consequences of current restrictions on public health services:

*“...In our hospital...I’ve seen a lot of girls. I’m going to give them a blood transfusion because they’ve had an abortion.” (male, rural)*

#### Social structures that contribute to early and unwanted pregnancies operate at multiple levels

The social structures that favour early and unwanted pregnancies, and unsafe abortion operate at multiple levels in Benguela Province:

At the micro-level, cultural norms, religious beliefs, and societal expectations place strong pressure on young women to avoid contraception, which often leads them to resort to unsafe abortions. Within intimate relationships, male partners play a critical role in shaping reproductive decisions: discussions with young men revealed that they frequently discourage condom use, citing reduced sexual pleasure, and tend to shift responsibility for contraception onto women. These dynamics are further reinforced by peer pressure and dominant notions of masculinity, which undermine shared decision-making and heighten young women’s physical and emotional vulnerability.

At the meso-level, institutional and systemic barriers hinder access to contraceptive methods and SRH services. These barriers include shortages of contraceptives, inadequate staff training, lack of young-friendly health centers, and limited or inadequate sex education

in schools. Additionally, community authorities and religious leaders may enforce beliefs that conflict with SRH practices.

At the macro-level, Angola’s Penal Code (Law No. 38/20) criminalizes abortion in most cases, creating a hostile legal and policy environment. The absence of implementation mechanisms and the persistence of stigma make safe abortion services largely inaccessible, pushing many women toward dangerous, unregulated options. Social stigma surrounding contraception and abortion further isolates and discriminates against women seeking these services. These social structures are illustrated in Fig. 4.

#### Discussion

This study explored how young people in Benguela Province perceive and navigate issues related to SRH, with a focus on unintended pregnancy and attitudes toward contraception and abortion. Four core concerns emerged in the discussions: early pregnancy, contraception and abortion, STIs, and GBV. These concerns were shaped by four intersecting structural and sociocultural factors: gender inequality, cultural and religious norms, access to health services, and the availability of SRH education and information.

It is important to note the intricate relationship between contraception, gender equality, and early pregnancy [40]. Although GBV and other sensitive issues were not as frequently mentioned as others, their significance

remains critical. Low frequency of mention may reflect stigma, fear, or the normalisation of certain experiences, particularly among YW, rather than their irrelevance. Testimonies referring to coercion, sexual abuse, and unequal power dynamics in relationships point to under-reported forms of GBV that directly affect SRH outcomes and autonomy [46]. Gender norms and power asymmetries played a prominent role in shaping the group discussions [47]. Despite using gender-matched facilitators, male participants generally spoke more openly and at greater length, while some YW appeared hesitant, especially on topics related to abortion or intimate partner relationships. These differences reveal how cultural expectations around gender still strongly influence how youth express themselves and make decisions. For instance, YM often rejected condom use, citing discomfort or loss of pleasure, while transferring responsibility for contraception to their female partners. In contrast, many YW described contraception as a tool for self-protection, but frequently lacked the power to negotiate its use [40]. These dynamics align with prior studies showing that low contraceptive uptake and early pregnancy often reflect constrained choices, not lack of awareness [24, 48, 49]. These risks can have lasting negative impacts on their mental health [50]. Lack of access to comprehensive sex education and contraceptive information, coupled with widespread poverty, contributes significantly to high rates of teenage pregnancy in Benguela Province [7, 25]. Additionally, the absence of open and honest communication between young people and their parents about SRH further exacerbates these challenges [32].

As echoed by classical theorists such as Maslow (1942), Fromme (1955), and Reiss (1976), sexual attitudes and behaviours are deeply shaped by socialisation, cultural meaning, and institutional constraints [51, 52].

Thematic analysis revealed four “Itineraries of Reality” (IR) representing different ways in which young people respond to unintended pregnancy. IR1 positions abortion as a moral transgression and a violation of cultural and religious values. This attitude was also highlighted by several recent studies where culture is used as a discursive resource to oppose safe abortion and where abortion is constructed as a destructive force of cultural values and traditions [39, 53]. IR2 presents abortion as a clandestine practice used to manage unwanted pregnancy, often involving unsafe and emotionally distressing methods. Similarly, several systematic reviews carried out in Africa report the same reality and bring to the table different control strategies, among which we can highlight improving access to contraceptive methods, the use of adolescent-friendly services, and comprehensive sexuality education [33].

IR3 describes the continuation of the pregnancy as the only viable path, particularly where motherhood is

idealised and alternatives are lacking. The reality that conforms to this itinerary is also highlighted by other studies that conclude that early age at first birth is associated with Christianity among other factors [53]. They also suggest that high fertility in SSA is explained by a religious belief system and a social structure that gives spiritual and economic rewards to high fertility. Traditional African religious values have sustained high fertility in two ways: they have acted directly to equate fertility with virtue and reproductive failure with sin [54]. Social pressure and false beliefs, along with fear, appear as the main barriers to accessing contraceptive methods or safe abortion procedures. A recent study on abortion stigma among women in Luanda, Angola, suggests that some abortion stigma in Angola stems not from abortion itself but rather from judgment about socially unacceptable pregnancies [29].

IR4 introduces an aspirational scenario in which abortion is legal, safe, and accessible, illustrating the transformative potential of legal and health system reform [55–57].

The identification of diverse IR has enabled the recognition of VCs, ESs and one EP [16, 29, 54]. Each itinerary is embedded in broader Vulnerability Circuits (VC). VC1 reflects how restricted access to contraception and safe abortion can lead to harmful health and emotional outcomes. It is characterised by early pregnancies and the pursuit of unsafe abortion services, calling for urgent attention to unmet reproductive needs [58].

VC2 exposes the intergenerational consequences of early motherhood—perpetuating cycles of poverty, school dropout, and limited life opportunities for YW. Participants pointed to ES and one EP that could challenge these patterns. It is supported by different studies that concluded that adolescent pregnancy in East Africa is influenced by factors such as education, age at first sexual encounter, household wealth, family structure (58). In addition, in Angola, most adolescent mothers come from early pregnancies and that it is related to poor family structure, low education and peri-urban residence [4, 6, 27, 58].

The way out of these circuits of vulnerability is possible through ES and, more sustainably, through the EP. In this context, community-based youth associations, both secular and religious, emerged as critical support systems. In the path of addressing unmet needs and offering viable alternatives, youth associations in Benguela province can play a crucial transformative role and contribute to social change [26]. These youth associations connect directly with the needs of young people, helping them to escape from circuits of vulnerability and serving them to reach their full potential. Their role as protective spaces is critical for SRH education and emotional well-being [59].



Importantly, some narratives suggested that early motherhood was not a fully voluntary choice, but rather the only socially available path for YW living in conditions of structural hopelessness. In environments where education, employment, and mobility are inaccessible, motherhood may be perceived as a way to attain social recognition. This reflects a form of constrained agency, not necessarily a desire to become pregnant, but a response to limited alternatives. Consistent with our findings, previous studies from East Africa have found adolescent pregnancy and early motherhood to be common across the region. More than half of the adolescents' most recent pregnancies and/or births in these countries were unintended [27]. Indeed, a recent study in Malanje province in Angola found that teenage pregnancy is a public issue influenced by low-income family structure, low education, and peri-urban residence [6].

These findings align with classical theories of sexual development and behaviour, which argue that sexual attitudes are shaped not only by individual psychology but also by broader social structures. The work of Reiss, Fromme, and Maslow [51, 52], among others, highlights how socialisation, cultural meaning, and structural conditions influence decision-making. In Benguela, young people's sexual and reproductive lives are embedded in systems of inequality and control, where legal restrictions, gendered expectations, and lack of services converge to limit autonomy. Finally, participants indirectly called for health system reform and legal advocacy. In Angola, abortion remains illegal except in rare cases, as established in Law No. 38/20. The current legal framework and social stigma drive women to unsafe practices with serious health implications.

## Conclusion

This study examined how adolescents and young adults in Benguela Province, Angola, perceive and experience SRH, with a focus on unintended pregnancy and attitudes toward contraception and abortion. The findings reveal that young people's reproductive decisions are shaped by a complex interplay of gender norms, cultural and religious beliefs, limited access to health services, and insufficient SRH education.

Four reproductive trajectories, Itineraries of Reality, were identified, reflecting the diverse ways young people respond to unintended pregnancy in a legally and socially restrictive environment. These pathways are embedded in vulnerability circuits that perpetuate early pregnancy, unsafe abortion, and intergenerational cycles of disadvantage. Nevertheless, participants also identified existing support systems, particularly youth associations and community-based spaces, as potential avenues for empowerment and change.

Barriers to accessing modern contraceptives and safe abortion services remain central to young people's reproductive challenges. In this context, early motherhood is often not a free choice but a reflection of limited life opportunities. Expanding access to youth-friendly SRH services, improving comprehensive sexuality education, and advancing legal reform around abortion are essential steps toward ensuring young people's right to bodily autonomy and informed decision-making.

The voices of youth in this study underscore the urgency of designing rights-based, context-sensitive interventions that not only improve service delivery but also challenge the structural and normative barriers that limit reproductive freedom. SRH policies and programmes must be grounded in the lived realities of young people, recognising that health, gender equity, and social justice are inseparable [60].

## Abbreviations

SRH	Sexual and Reproductive Health
SAA	Sub-Saharan Africa
YW	Young Women
YM	Young Men
FGD	Focus Group Discussion
SRHR	Sexual and Reproductive Health and Rights
STIs	Sexually Transmitted Infections
GBV	Gender-based violence
IR	Itinerary of Reality
VC	Vulnerable Circuit
ES	Exit Strategy
EP	Empowerment Pathway
KAP	knowledge, attitudes, and practices

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## Authors' contributions

Authors contribution: Conceptualization: [E.E]; Methodology: [E.E, O.L, G.I, A.S, M.L.A]; Formal analysis and investigation: [E.E, A.E]; Writing - original draft preparation: [E.E, G.I]; Writing - review and editing: [E.E, G.I, O.L, A.S, F.Z, P.O, D.V, J.C, C.P, M.L.A, I.M]; Resources: [E.E, M.L.A, I.M]; Supervision of EE: [O.L, M.L.A, I.M]. All authors read and approved the final manuscript.

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## Data availability

Derived data supporting the findings of this study are available from the corresponding author [E.E] on request.



## Declarations

### Ethics approval and consent to participate

The study was designed, implemented, and reported in accordance with the Declaration of Helsinki's Good Clinical Practice guidelines. The ethics committee of the Ministry of Health of the Republic of Angola (MINSa) (nº14/2021) requested approval. Written informed consent was obtained from all participants to participate and record interviews, and the transcriptions were anonymized. This study adheres to the Consolidated Criteria for Reporting Qualitative Research (COREQ) checklist to ensure transparency and comprehensiveness in the reporting of qualitative methods, data collection, analysis, and findings.

### Competing interests

The authors declare no competing interests.

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## References

1. Instituto Nacional de Estatística de Angola. Inquérito de Indicadores Múltiplos e de Saúde de Angola (IIMS 2023–2024). Luanda: INE, Ministério da Saúde, e UNICEF; 2024.
2. Girlhood N. Motherhood: Preventing Adolescent Pregnancy. New York: UNFPA. 2015. <https://www.unfpa.org/publications/girlhood-not-motherhood>
3. World Health Organization. WHO. Global Abortion Policies Database. Geneva: WHO; 2024. <https://abortion-policies.srhr.org>
4. Chandra-Mouli V, et al. A never-before opportunity to strengthen investment and action on adolescent contraception, and what we must do to make full use of it. *Reprod Health*. 2017. <https://doi.org/10.1186/s12978-017-0347-9>.
5. UNESCO. International Technical Guidance on Sexuality Education. An Evidence-Informed Approach for Schools, Teachers and Health Educators. Revised Edition. Paris: UNESCO; 2018. <https://unesdoc.unesco.org>
6. Aragão K, Sacomboio EN, Van-Dúnen JC, Santos AC, Campos PA. Sociodemographic and family characteristics of pregnant adolescent in malanje. *Int J Health Sci*. 2023;3(49):2–13.
7. United Nations Population Fund (UNFPA). The state of world population 2017. Reproductive health and rights in an age of inequality. New York: UNFPA; 2017. <https://www.unfpa.org/swop-2017>
8. Mombo-Ngoma G, Mackanga JR, González R, Ouedraogo S, Kakolwa MA, Manego RZ, et al. Young adolescent girls are at high risk for adverse pregnancy outcomes in sub-Saharan Africa: an observational multicountry study. *BMJ Open*. 2016;6(6):e011783.
9. Ahinkorah BO. Socio-demographic determinants of pregnancy termination among adolescent girls and young women in selected high fertility countries in sub-Saharan Africa. *BMC Pregnancy Childbirth*. 2021;21(1):598.
10. Amnesty International [cited 2025 May 29]. Amnesty International's policy on abortion. London: Amnesty International; 2020. <https://www.amnesty.org/en/documents/pol30/3682/2020/en/>
11. Bankole A, Remez L, Owolabi O, Philbin J, Williams P. From Unsafe to Safe Abortion in Sub-Saharan Africa: Slow but Steady Progress. New York: Guttmacher Institute; 2020. <https://www.guttmacher.org/report/from-unsafe-to-safe-abortion-in-sub-Saharan-africa>
12. Adinma J, Umeononihu O, Umeh M. Adolescent and pre-pregnancy nutrition in Nigeria. *Trop J Obstet Gynaecol*. 2017;34(1):1.
13. Bearinger LH, Sieving RE, Ferguson J, Sharma V. Global perspectives on the sexual and reproductive health of adolescents: patterns, prevention, and potential. *Lancet*. 2007;369(9568):1220–31. [https://doi.org/10.1016/S0140-6736\(07\)60367-5](https://doi.org/10.1016/S0140-6736(07)60367-5).
14. Hindin MJ, Christiansen CS, Ferguson BJ. Setting research priorities for adolescent sexual and reproductive health in low- and middle-income countries. *Bull World Health Organ*. 2013;91(1):10–8.
15. Low N, Broutet N, Adu-Sarkodie Y, Barton P, Hossain M, Hawkes S. Global control of sexually transmitted infections. *Lancet*. 2006;368(9551):2001–16.
16. Ahinkorah BO. Individual and contextual factors associated with mistimed and unwanted pregnancies among adolescent girls and young women in selected high fertility countries in sub-Saharan Africa: a multilevel mixed effects analysis. *PLoS ONE*. 2020;15(10):e0241050.
17. Yaya S, Kunnuji MON, Bishwajit G. Intimate partner violence: A potential challenge for women's health in Angola. *Challenges*. 2019;10(1):21.
18. Ahinkorah BO, Kang M, Perry L, Brooks F, Hayen A. Prevalence of first adolescent pregnancy and its associated factors in sub-Saharan Africa: a multi-country analysis. *PLoS ONE*. 2021;16(2):e0246308.
19. de Adam T. Systems thinking for strengthening health systems in Imics: need for a paradigm shift. *Health Policy Plan*. 2012;4(1–3):27.
20. de Savigny D, Adam T, eds. Systems thinking for health systems strengthening: Moving forward. Geneva: World Health Organization; 2009. p. 87–107.
21. Maani KE, Maharaj V. Links between systems thinking and complex decision making. *Syst Dyn Rev*. 2004;20(1):21–48. <https://doi.org/10.1002/sdr.281>.
22. Bronfenbrenner U. The ecology of human development, vol. 32. Cambridge: Harvard University Press; 2016.
23. Smith J, Firth J. Qualitative data analysis: the framework approach. *Nurse Res*. 2011;18(2):52–62.
24. Redinger S, Pearson RM, Houle B, Norris SA, Roach TJ. Thoughts of self-harm in early and late pregnancy in urban South Africa: investigating prevalence, predictors and screening options. *South Afr Med J*. 2021;111(7):627.
25. United Nations Population Fund (UNFPA). Girlhood, Not Motherhood: Preventing Adolescent Pregnancy, 2015.
26. Santoshkumar, Youth activism: the role of young people in social change. *ShodhKosh: Journal of Visual and Performing Arts*. 2024;5(2).
27. Wado YD, Sully EA, Mumah JN. Pregnancy and early motherhood among adolescents in five East African countries: a multi-level analysis of risk and protective factors. *BMC Pregnancy Childbirth*. 2019;19(1):59.
28. Ekeocha O. The abortion agenda in Africa. *Issues Law Med*. 2017;32(2):265–8.
29. Blodgett M, Weidert K, Nieto-Andrade B, Prata N. Do perceived contraception attitudes influence abortion stigma? Evidence from Luanda, Angola. *Popul Health*. 2018;5:38–47. <https://doi.org/10.1016/j.ssmph.2018.05.003>.
30. MOORE, AM, JAGWE-WADDA G, BANKOLE A. MEN'S ATTITUDES, ABOUT ABORTION IN UGANDA. *J Biosoc Sci*. 2011;43(1):31–45.
31. Seleballo-Bereng L, Patel CJ. Reasons for abortion: religion, religiosity/spirituality and attitudes of male secondary school youth in South Africa. *J Relig Health*. 2019;58(6):2298–312.
32. Usonwu I, Ahmad R, Curtis-Tyler K. Parent-adolescent communication on adolescent sexual and reproductive health in sub-Saharan Africa: a qualitative review and thematic synthesis. *Reprod Health*. 2021;18(1):202.
33. Atuhaire S. Abortion among adolescents in Africa: A review of practices, consequences, and control strategies. *Int J Health Plann Manage*. 2019;34(4).
34. Ferrari W, Peres S. Itinerários de solidão: aborto clandestino de adolescentes de Uma Favela Da Zona Sul do Rio de Janeiro, Brasil. *Cad Saude Publica*. 2020;36:1.
35. Palma Manríquez I, Moreno Standen C, Álvarez Carimoney A, Richards A. Experience of clandestine use of medical abortion among university students in Chile: a qualitative study. *Contraception*. 2018;97(2):100–7.
36. Jules Cesar M, Levy Max Emery E, Gauthier Regis Jostin B, Mpia Sekangue Samantha Nuelly P, Ossibi Pierlesky E, Berthrand Lori N, et al. Clandestine abortion complicated by intestinal eversion by vaginal route: about a case at the university hospital of Brazzaville. *J Gynecol Obstet*. 2021;9(1):5.

37. Alhassan AY, Abdul-Rahim A, Akaabre PB. Knowledge, awareness and perceptions of females on clandestine abortion in Kintampo North Municipality, Ghana. *Eur Sci J ESJ*. 2016;12(12):95.
38. Freeman, Coast. Murray. Men's roles in women's abortion trajectories in urban Zambia. *Int Perspect Sex Reprod Health*. 2017;43(2):89.
39. Macleod C, Sigcau N, Luwaca P. Culture as a discursive resource opposing legal abortion. *Crit Public Health*. 2011;21(2):237–45. <https://doi.org/10.1080/09581596.2010.492209>.
40. Yakubu I, Salisu WJ. Determinants of adolescent pregnancy in sub-Saharan Africa: a systematic review. *Reprod Health*. 2018;15(1):15.
41. Kassa GM, Arowojolu AO, Odukogbe AA, Yalew AW. Prevalence and determinants of adolescent pregnancy in Africa: a systematic review and meta-analysis. *Reprod Health*. 2018;15(1):195.
42. República de Angola. Código Penal de Angola. Lei n.º 38/20, de 11 de novembro. Secção II: Crimes contra a vida intrauterina. Luanda: Diário da República; 2020.
43. Kedzior SGE, Lassi ZS, Oswald TK, Moore VM, Marino JL, Rumbold AR. A systematic review of school-based programs to improve adolescent sexual and reproductive health: considering the role of social connectedness. *Adolesc Res Rev*. 2020;5(3):213–41.
44. Carey RL, Akiva T, Abdellatif H, Daughtry KA. And school won't teach me that! urban youth activism programs as transformative sites for critical adolescent learning. *J Youth Stud*. 2021;24(7):941–60.
45. Testa D, Cavallini F. How activism correlates with Well-Being in adolescence: a systematic review. 2021.
46. Palermo T, Bleck J, Peterman A. Tip of the iceberg: reporting and gender-based violence in developing countries. *Am J Epidemiol*. 2014;179(5):602–12.
47. Marshall B, Mehoul-Loko C, Mazibuko S, Madladla M, Knight L, Humphries H. Exploring perceptions of gender roles amongst sexually active adolescents in rural KwaZulu-Natal, South Africa. *PLoS ONE*. 2024;19(1):e0296806.
48. Roberts KJ, Smith C, Cluver L, Toska E, Sherr L. Understanding mental health in the context of adolescent pregnancy and HIV in Sub-Saharan Africa: a systematic review identifying a critical evidence gap. *AIDS Behav*. 2021;25(7):2094–107.
49. Osok J, Kigamwa P, Stoep A, Vander, Huang KY, Kumar M. Depression and its psychosocial risk factors in pregnant Kenyan adolescents: a cross-sectional study in a community health centre of Nairobi. *BMC Psychiatry*. 2018;18(1):136. <https://doi.org/10.1186/s12888-018-1706-y>.
50. Osok J, Kigamwa P, Huang KY, Grote N, Kumar M. Adversities and mental health needs of pregnant adolescents in Kenya: identifying interpersonal, practical, and cultural barriers to care. *BMC Womens Health*. 2018;18(1):96.
51. DeMartino MF. Attitudes toward sex and strength of sexual drive. In: Calderone MS, editor. *Sex and the intelligent women*. Berlin, Heidelberg: Springer-Verlag; 1974. pp. 13–25.
52. Reiss IL. The influence of contraceptive knowledge on premarital sexuality. *Medical aspects of human sexuality*. Hospital Publications, Inc. 1970;14(2):75–86.
53. Motsima T. The Risk Factors Associated With Early Age At First Birth Amongst Angolan Women. : Evidence from the 2015–2016 Angola demographic and health survey. *Eur J Med Health Sci*. 2020;2(2).
54. Caldwell JC, Caldwell P. The cultural context of high fertility in sub-Saharan Africa. *Popul Dev Rev*. 1987;13(3):409.
55. Glover AL, Mulunda JC, Akilimali P, Kayembe D, Bertrand JT. Expanding access to safe abortion in DRC: charting the path from decriminalisation to accessible care. *Sex Reprod Health Matters*. 2023. <https://doi.org/10.1080/26410397.2023.2273893>.
56. Hefez J, Mulunda J, Tumba A, Mpoyi M, Dabash R. Domestication of the Maputo protocol in the Democratic Republic of Congo: leveraging regional human rights commitments for abortion decriminalization and access. *Int J Gynaecol Obstet*. 2024;164(51):12–20.
57. DD O, AC A, EB O. The unmet need for abortion law reforms and modern contraceptive uptake in Nigeria, Kenya, Ghana and Ethiopia: A systematic review. *Int J Clin Obstet Gynecol*. 2022;6(1):42–7.
58. Munakampe MN, Zulu JM, Michelo C. Correction to: Contraception and abortion knowledge, attitudes and practices among adolescents from low and middle-income countries: a systematic review. *BMC Health Serv Res*. 2019;19(1):441.
59. Patton GC, Sawyer SM, Santelli JS, Ross DA, Afifi R, Allen NB, et al. Our future: a lancet commission on adolescent health and wellbeing. *Lancet*. 2016;387(10036):2423–78. [https://doi.org/10.1016/S0140-6736\(16\)00579-1](https://doi.org/10.1016/S0140-6736(16)00579-1).
60. Patton GC, Sawyer SM, Santelli JS, Ross DA, Afifi R, Allen NB, et al. Our future: a lancet commission on adolescent health and wellbeing. *Lancet*. 2016;387(10036):2423–78. Patton GC, Sawyer SM, Santelli JS, Ross DA, Afifi R, Allen NB, et al. Our future: a lancet commission on adolescent health and wellbeing. *Lancet*. 2016;387(10036):2423–78.
61. Mbou Essie DE, Ndinga H, Niama A, Oyere G, Kifoueni G, Ibara JR. Avortements clandestins compliqués et médicaments de la rue à Brazz

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