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Barriers and facilitators regarding the implementation of policies and programmes aimed at reducing adolescent pregnancy in Ghana: an exploratory qualitative study

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ABSTRACT

Objectives This study explored the perceived barriers and facilitators regarding the implementation of policies and programmes aimed at reducing adolescent pregnancy among health and education professionals ('professionals'), grassroots workers and adolescent girls in Ghana.

Design and setting We employed an exploratory qualitative study design involving interviews with professionals, grassroots workers and adolescent girls in the Central Region of Ghana.

Participants This study involved 15 professionals employed in government or non-governmental organisations, 15 grassroots workers and 51 pregnant/parenting and non-pregnant adolescent girls.

Data analysis Thematic analysis was conducted deductively using the ecological framework for understanding effective implementation.

Results Eighteen themes mapped to the five domains of the ecological framework emerged. Perceived barriers included gender inequality, family poverty, stigma, community support for early childbearing and cohabitation, inadequate data systems, lack of collaboration between stakeholders and lack of political will. Effective implementation of community by-laws, youth involvement, use of available data, and collaboration and effective coordination between stakeholders were the perceived facilitators.

Conclusion Political leaders and community members should be actively engaged in the implementation of adolescent sexual and reproductive health policies and programmes. Gender empowerment programmes such as education and training of adolescent girls should be implemented and strengthened at both the community and national levels. Community members should be sensitised on the negative effects of norms that support child marriage, gender-based violence and early childbearing.

STRENGTHS AND LIMITATIONS OF THIS STUDY

⇒ Strengths include the triangulation of data collected from three different samples.
⇒ Purposive sampling of professionals and grassroots workers increased the likelihood of hearing the views of individuals with in-depth knowledge or experience about the subject.
⇒ The use of snowballing and convenience sampling of some participants may have led to the exclusion of potential participants who were not recommended by others or were not available at the time of the data collection.
⇒ Some of the adolescents may not have provided accurate information due to fear of stigma from their peers after the interviews; similarly, grassroots workers and professionals may have constrained expression of their views due to concern at negative responses from their employers.
⇒ Not including male adolescents might have led to the study missing potentially useful information.

INTRODUCTION

The world's attention was first focused on the sexual and reproductive health and rights of women, including adolescents at the 1994 International Conference on Population and Development.[1] Since then, a number of countries, especially those in sub-Saharan Africa have developed and implemented national policies and programmes aimed at dealing with adverse adolescent sexual and reproductive health (ASRH) outcomes, including adolescent pregnancy.[2] In Ghana, one of the key national policies for reducing adolescent pregnancy is the Adolescent Health Service Policy and Strategy, which focuses on mainstreaming ASRH information and gender-sensitive and responsive health services.[3] These national policies coexist with programmes which are developed and implemented by both governmental and non-governmental organisations.[4] The effectiveness of these policies and programmes depends on a suitable context, the experience and expertise of the implementers and the support of beneficiaries ('consumers').[5]

A systematic review of qualitative evidence linked the effectiveness of interventions to reduce adolescent pregnancy in low-income and middle-income countries (LMICs) with a number of local characteristics.[6] For example, interventions aimed at reducing unintended pregnancies in LMICs were shown to be more effective when adolescent girls have positive attitude towards family planning and are assertive to protect themselves from unplanned pregnancies, care providers address the needs of adolescents and family and community members support adolescents in ASRH decision-making. Implementation was deterred where adolescents felt alienated from health and educational programmes, parental supervision was ineffective and there was societal and religious abhorrence of open sexual discourse and adolescents use of family planning services. Barriers were also posed where social norms subordinated adolescent women to men, and the community supported early childbearing. These findings highlight the significance of the influence of local context and culture in the implementation of ASRH policies and programmes aimed at reducing adolescent pregnancy.[7]

In Ghana, few studies have explored the implementation of ASRH policies and programmes.[8–10] These studies have mainly focused on the implementation of sexuality education and its associated challenges in Ghana. None of these studies have explored the perceived barriers and facilitators to the implementation of policies and programmes on adolescent pregnancy in Ghana. This represents an important gap that needs to be explored. Exploration of the barriers and facilitators to policy and programme implementation among those who deliver them and adolescents who are their beneficiaries is important to provide information to support the implementation of current policies and programmes and to obtain baseline data to enhance uptake of future policies and programmes. This study, therefore, aimed to explore the perceived barriers and facilitators regarding the implementation of these policies and programmes among health and education professionals ('professionals'), grassroots workers and adolescent girls in Ghana.

Conceptual framework

We used the ecological framework for understanding effective implementation[5] (hereafter 'the ecological framework') and a realist approach to evaluation[11] to guide this study. The ecological framework describes a system of interconnected variables that influence implementation: communities, providers, innovations, the prevention delivery and support systems (eg, features related to organisational capacity and to training and technical assistance). The realist approach to implementation is based on the premise that social programmes only ever work for certain people in certain circumstances and the central task is to understand and explain these patterns of success and failure.[11] Such an explanation can be achieved by employing an ecological framework to seek understanding the contexts, mechanisms and outcomes of the programmes.[12]

METHODS

Design

We employed an exploratory study design involving semi-structured interviews with professionals and grassroots workers and focus group interviews with adolescent girls. An exploratory qualitative study design enabled in-depth examination of the topic to gain new insights and increase knowledge of the phenomenon from the research participants' perspectives.[13] The manuscript was prepared in line with the COREQ (Consolidated criteria for Reporting Qualitative research) checklist.

Study setting

The study was conducted in three districts in the Central Region of Ghana: Komenda-Edina-Eguafo-Abrem (KEEA) municipality, Cape Coast municipality and Assin South district. These districts have higher reported rates of adolescent pregnancy compared with the national average.[14] They are all relatively rural and of low socioeconomic status with fishing and farming as the main industries. Fante and Twi are the major languages and Christianity is the dominant religion.[15]

Sample

We had three sampling frames:

1. Professionals employed in government or non-governmental organisations.
2. Grassroots workers in communities with the highest adolescent pregnancy rates in each of the three districts.
3. Pregnant/parenting and non-pregnant adolescent girls from the same communities as the grassroots workers. We decided only to interview adolescent girls (both pregnant/parenting and non-pregnant) to privilege and prioritise their perspectives. Adolescent girls are those with direct and in-depth experiences of barriers to accessing ASRH interventions. We could have conducted separate/additional interviews with adolescent boys (as well as men who are fathers of children born to adolescent girls), however this would have added considerable resourcing needs to the study which was already impacted significantly by COVID-19.

Participants

This study involved 15 professionals employed in government or non-governmental organisations, 15 grassroots workers and 51 pregnant/parenting and non-pregnant adolescent girls. The number of professionals and grassroots workers considered were those who were available and were willing to participate in the study and those of the adolescent girls were determined from the number of focus group interviews conducted. Hence, reference to data saturation was removed as sampling was governed by the principles of the sampling strategies: convenience and snowballing.

Sampling techniques

Professionals were purposively sampled using key informant contacts. Purposive and snowball sampling were used to recruit the grassroots workers. Sampling of the professionals and grassroots workers was done with the help of the Director of the Department of Gender for the region.

Convenience and snowball sampling techniques were used to recruit the adolescent girls. The grassroots workers assisted with generating a sampling frame for the adolescent girls.

Data collection procedure

Instrument: We developed semi-structured and focus group interview guides based on international literature about sexual and reproductive health policies and programmes,[2 16] the authors' expertise in sexual and reproductive health (SRH) and through consultation with local SRH experts in Ghana. Interview prompts for professionals and grassroots workers included questions about their professional/work background and role in policy or programme implementation, general awareness of current national or local policies and programmes and their perspectives on the barriers and facilitators to implementation (see online supplemental file 1). For adolescent girls, focus group interview prompts included socio-demographic characteristics, information about access to pregnancy prevention information and services, and facilitators and barriers regarding access to pregnancy prevention information and services (see online supplemental file 2).

Interviews: Interviews with professionals and grassroots workers were conducted by two professional research assistants either face-to-face or using WhatsApp/telephone, except one of the interviews with a health professional which was conducted by the first author. Seven interviews were conducted using WhatsApp/telephone and the rest were done face-to-face. The face-to-face interviews took place in community buildings, private offices and homes of participants, based on the participant's preference. These were places where participants felt free to talk and provide information. Focus group interviews were conducted face-to-face at community centres or other convenient places such as the homes of community leaders. All COVID-19 protocols, including physical distancing, face mask wearing and use of hand sanitisers were observed for interviews and focus groups. Interviews with professionals were conducted in English while those with grassroots workers and the focus group discussions with adolescent girls were conducted in either Fante or Twi. Interviews lasted between 45 and 120 min. All interviews were digitally audio-recorded and professionally transcribed while those conducted in Fante and Twi were professionally translated into English during transcription. The first author listened to each audio file and debriefed with the research assistants immediately after each interview. The first author, who is fluent in English, Fante and Twi, also checked all transcripts against the audio files. Pseudonymisation was done by replacing all personally identifiable information from a data record with project.

Data analysis

The English language transcripts for each interview were the units of analysis. Transcripts were entered into NVivo V.12 to assist with data organisation and analysis. Thematic analysis was conducted deductively using the ecological framework to map the emergent themes into the five domains.[5] The Braun and Clarke[17] step-by-step guide for doing a thematic analysis was followed in conducting the analysis. BOA coded all transcripts and MK independently coded 20% of the transcripts. Coding was done inductively. BOA and MK met on three occasions to compare and discuss codes and resolved any discrepancies through discussions to reach consensus. Initial themes were deduced by analysing data from each of the three samples separately. Themes were then compared across the three samples, allowing triangulation of data for greater depth of analysis. BOA and MK conducted the thematic analysis independently and together, meeting on six occasions to discuss resultant themes and subthemes, which were subsequently discussed in two further meetings of all four authors.

Ethical considerations

The participant information sheets explained the study's aim and scope and the participants' rights to informed consent before the interviews. The information sheets were read to participants who could not read or write. Written informed consent was obtained from all participants involved in the study by signing or thumb printing the consent form. We sought participant approval to audio-record the interviews and publish the findings.

Patient and public involvement

None.

RESULTS

Study participants

In this study, 15 professionals, 15 grassroots workers and 51 female adolescents were interviewed between 20 August 2020 and 9 November 2020. The professionals included eight women and seven men, aged between 20 and 54 years, who worked across all three districts in the Central region for a range of government and non-governmental organisations. The grassroots workers consisted of 10 men and five women aged between 25 and 59 years. They had various roles within their communities and were directly involved in activities and programmes aimed at reducing adolescent pregnancy. Table 1 provides detailed information on professionals and grassroots workers. The adolescent girls included 21 pregnant adolescents and 30 non-pregnant adolescents aged 15–19 years. Sixteen were from the Cape Coast municipality, 19 from the KEEA municipality and 16 from the Assin South district.

Table 1 Detailed characteristics of the professionals and grassroots workers

Professionals	Number	Grassroots workers	Number
Gender		**Gender**	
Male	8	Male	10
Female	7	Female	5
Age		**Age**	
20–24	2	20–24	0
25–29	1	25–29	2
30–34	2	30–34	1
35–39	3	35–39	2
40–44	4	40–44	1
45–49	1	45–49	4
50–54	1	50–54	2
		55–59	1

Findings of the thematic analysis

Using a realist approach, we mapped 18 themes to the 5 domains of the ecological framework (figure 1).[5] This gave a rich picture of the context and mechanisms within which policy implementation was occurring. We classified six of the themes as community factors, two as provider characteristics and four as innovation characteristics. We further classified three of the themes under prevention delivery system and three under prevention support system. The mapped themes are presented below with a description of each followed by illustrative quotations.

Perceived barriers

Community factors

1. Gender inequality is a pervasive influence in the community and is expressed by gender-based violence and male spousal dominance in ASRH decision-making which impacts programme implementation.

Participants across all three samples described the way patriarchal structures and processes operate to perpetuate gender inequality and the role of men as decision-makers when it came to adolescent reproductive health. This was evident in the many examples given of gender-based violence, which often led directly to adolescent pregnancy. Gender-based violence was so prevalent as to be seen by many participants as normative. Participants also showed how men's consent was sought when adolescent girls were assessing reproductive health services.

> When you go to some of our communities, they will tell you that they don't see it as violence but as a cultural practice where the girl child should not decide when to have sex, for example, when these girls are forced to marry. (IDI 7)

> When you want to go and do family planning, they will tell you to come with your partner. They will ask both of you whether you agree to space out your pregnancies. I discussed with my partner and he rejected the idea of family planning. (FGD_1_EP_1)

2. Family poverty is a major determinant of risky sexual behaviour mediated by child neglect, lack of financial support for adolescent girls and lack of sexual agency.

Participants described family poverty as pervasive in their communities. One of the consequences of this was parents having to leave adolescent children unsupervised while they worked. A common strategy used by parents to generate family income or to defray costs of living involved allowing or actively encouraging adolescent female children to engage in sex for money or other necessities. Female adolescents were left with little sexual agency.

> When I was in school, my parents were not giving me money. When I started menstruating, I met a boy and he told me that the blood I see is menses so he took me out to get some sanitary pads and then my sister here showed me how to use it. It was then that I fell in love with the boy. So we had sex and I got pregnant. (FGD 1 K_P_4)

> In terms of causes of teenage pregnancy, it is clear that there are some parents who are directly involved in their child's pregnancy. They ask the adolescents to go and have sex and bring money home. (IDI_4)

3. Gatekeeping adolescents' access to SRH information and services through stigma.

The participants considered premarital sex as a sin and a taboo within communities which unequally stigmatised women. Sexually active adolescent women, particularly if unmarried, were socially ostracised and denied care and access to SRH information. Community leaders, members, and parents placed high emphasis on abstinence-only education.

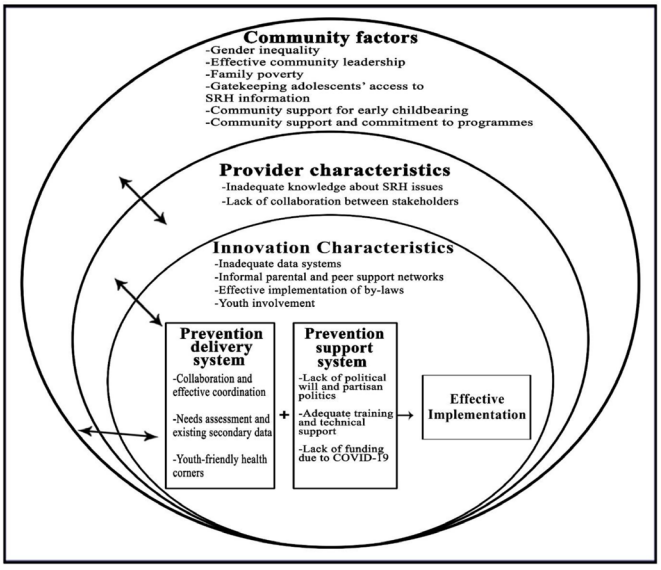

Figure 1 Ecological framework for understanding effective implementation showing barriers and facilitators based on Durlak and DuPre.[5]

> Our argument is that, if you are a girl and you have done family planning, then you would want to go and have sex. If you don't do the family planning and you have sex you know you will get pregnant. That is why we want to prevent them from using family planning so that they will be scared to have sex. (IDI_E1)

> For my science teacher, when we got to some aspects of the teaching, he refused to teach us. When we were talking about the menstrual cycle and how to calculate the safe period, he said he wouldn't teach us because if he does, we would go and practice it. (FGD 1 N_NP_3)

4. Community support for early childbearing and cohabitation allow adolescent girls the freedom to engage in sexual activities.

The participants explained that in some of the communities, early childbearing was considered an achievement and women with no children after adolescence were stigmatised. This meant that cohabitation was desirable and provided adolescents the opportunity to engage in sexual activities.

> In some communities, it is a norm for you to get pregnant as a child. When you get to the adolescent age and you don't have a child, they see you as infecund and not a woman. They don't see anything wrong with the young girls getting pregnant. (IDI_9)

> Meanwhile if you are about 35 or 40 years and you get pregnant and you go to the hospital, the nurses will be laughing at you that you are old and you are now going to give birth. (FGD_E_P)

Provider characteristics

1. Community leaders and parents have inadequate knowledge about SRH issues and resist and/or withhold SRH information and services.

Due to illiteracy, community leaders and parents were described as feeling uncomfortable educating adolescents about SRH issues and at the same time hinder programme implementers from providing such information and services to adolescents.

> Most community leaders or teachers do not have the right information or knowledge on adolescent sexual and reproductive health issues and therefore, do not find it comfortable discussing it with the adolescents. (IDI 7)

> Sometimes when the child is going to seek information about family planning, the parents will be shouting and saying that the girl is going to fornicate. Sometimes, if there is a programme on SRH and you attend, some parents will sack you and say that you went to fornicate so leave the house. (FGD_1_ENP_3)

2. Lack of collaboration between stakeholders and poor community engagements results in duplication of programmes and lack of community support for programmes.

The participants explained that providers of SRH education and services found it difficult implementing collective programmes that bring on board all stakeholders. This led to the implementation of similar programmes by different stakeholders and affected the inter-agency commitment needed for the effective implementation of programmes.

> Our collaboration with other stakeholders is a challenge. I will say that the HIV alert got to its peak but dropped at a point because other NGOs here were also working on similar issues. That is what brings about the duplication. (IDI 6)

> We have situations where you have conflicts between the Ghana Health Service and the Ghana Education Service, where the Ghana Education Service thinks that once you are inviting a nurse to come and take up a task in a school then it means that person is going to take their job. So they do not allow the nurse access to the school. (IDI 14)

Innovation characteristics

1. Inadequate data systems impede the development of innovative programmes and SRH service delivery.

Participants described low reporting of gender-based violence, child marriage and adolescent pregnancy. Without formal records and ongoing data collection, gender inequality persisted and SRH service and programme delivery could be made vulnerable.

> One of the areas that we have serious problem is child marriage because they are not reported. It happens within the homes and it is not reported. For that one, until someone sees and report, there is a challenge. (IDI_13)

> You know, things about gender-based violence are secret so if the person does not come out to talk about it, then you will not know about it. So there is some incidence of rape but it will be about 1% or 2% because only a small number of girls report them. (IDI_N1)

Prevention support system

1. Lack of political will and partisan politics lead to inadequate financial, logistic and technical support for adolescent SRH programmes and policies.

Participants described how the government of Ghana accorded less priority to adolescent SRH issues and insufficient budgetary allocation. Other participants also explained that differences between affiliates of political parties hindered support for SRH programmes.

> The government doesn't even have budget lines for adolescent health and that can affect organisational capacity. Because if the government or agency cannot support those programmes, then it is a barrier. They want results but how to support the programmes to get results is not their problem. So if the government

is not funding, it becomes very difficult to implement. (IDI 12)

At the community level, one thing that affects the programmes is partisan politics. When the National Democratic Congress (NDC) organises a programme for adolescents, the supporters of the New Patriotic Party (NPP) will not come; likewise, if the NPP organises a programme for the adolescents, the supporters of the NDC will not come. (IDI N3)

2. COVID-19 hindered external financial support for SRH programmes and access to SRH services due to lockdown.

COVID-19 was reported as challenging government and non-governmental organisations to get external funding to organise programmes.

During the lockdown, I spoke to a number of people about this issue and it even came to the airwaves that people are not having access to contraceptives and so there was teenage pregnancy. (IDI 7)

Well, over the years, for some time now, funding is dwindling not only for Ghana but all over the world, and with the coronavirus, things are going to get worse. Even the donors are struggling over there because demand has shifted to other areas. (IDI_15)

Perceived facilitators

Community factors

1. Effective community leadership is required to enforce relevant community by-laws and yield community participation and support for programmes.

Social structures within communities were described by the participants as hierarchical which entailed delegation of decision-making authority and by-law enforcement predominantly to the chiefs. Assemblymen also had authority to make by-laws. Chiefs had a powerful influence over community attitudes towards, and support for, a range of programmes. Given the entrenched nature of gender inequality and lack of agency of adolescent girls in managing their reproductive health, community leadership played an important role in engaging the whole community in the implementation of programmes. This theme cut both ways, as communities without chiefs found it difficult to enforce relevant by-laws and this affected the commitment and support of community members towards programmes.

When you engage communities that have a stable leadership and opinion leaders in some of these programmes and they understand the broader issues, I believe that they tend to support their implementation. (IDI 9)

The challenge is that we don't have a chief in this community. Therefore, when we set such rules, the enforcement doesn't work. So even if you get someone who has breached the law, you cannot do anything because there is no chief. So, having a chief will help. (ID1_E2)

2. Community commitment to and support for programmes can be achieved through engagement, sensitisation and information sharing.

The participants explained that when community members are involved in the implementation of programmes and have access to adequate information about programmes, they become committed and support the programmes. For the participants, making communities aware of a programme and how it will be implemented was an effective means of ensuring the effective implementation and sustainability of programmes.

The community has become aware of some of these issues through community sensitization and information sharing sessions. So all these things are helping to make the implementation process a success. (IDI_13)

Honestly, the interaction between the NGOs and us is good. The moment they give us information that there is a programme they want to do, all we need to do is to coordinate with each other for about a week and the programme becomes effective. (IDI_KI)

3. Effective implementation of by-laws around community norms was perceived as having a positive impact on risky adolescent sexual activity.

Participants reported that by-laws reflect community norms and are introduced by community leaders. They described examples such as punishment for parents whose daughters are given into child marriages, punishment for girls who get pregnant during adolescence and evening curfews for adolescents. When implemented by community leaders, participants believed they reduce risky adolescent sexual activity.

Some communities have laws that say that for any young person who gets pregnant, their parents are named and shamed. There are other by-laws that young people are not supposed to be out at certain time in the night. So, these community laws and practices have helped to reduce adolescent pregnancy in some communities. (IDI_9)

Over here, we do not accept child marriage. When the queen mother finds out that a girl who got pregnant has been forced into marriage, she will be forced to return to her family because it is not something that is accepted in our community. (IDI_K1)

They said that if you are not 20 years old then you shouldn't get pregnant or give birth. (FGD 1 KNP)

Innovation characteristics

1. Informal parental and peer support networks are effective mechanisms for facilitating health literacy, SRH access and sexual agency.

The participants described how parents and friends provide adolescents with essential information on sexual and reproductive health, which helps them to easily access sexual and reproductive health services and empowers them to decline sexual relationships.

There is an association called Community Parents Network Advocacy Group. They educate adolescents about teenage pregnancy. Their aim is to stop early/child marriage and teenage pregnancy. (IDI_N5)

Some of the parents will take their children to the health facility for them to put them on a family planning commodity when they realise that the girls are sexually active. (FGD1 E_NP_3)

2. Youth involvement helps in the implementation of policies and programmes that address the specific needs of adolescents and increases their acceptability.

The participants described the establishment of girls' clubs and youth groups as effective means of enhancing the participation of adolescents in the implementation of policies and programmes. These also led to the implementation of youth-focused policies and programmes.

There is annual conference for adolescents, which is organized by the Ghana Health Service and Population Council. They have also formed adolescent groups in districts and they meet at the national level. They also have a board, which is made up of adolescents where they discuss issues about themselves. Now, adolescents are being engaged at all levels. (IDI_4)

I heard about teenage pregnancy from Girls-Child. It is a group in school that talks to the adolescent girls about a number of things like menstrual hygiene and other things. They told us that, if you are not of age and you have sex, you will get pregnant and that is teenage pregnancy. (FGD_1_NP_1)

Prevention delivery system

1. Stakeholder engagement yields information sharing and creates supportive systems that enhance innovative policies and programmes.

Participants described how government and non-governmental organisations worked with each other and with communities to implement policies and programmes. Such collaboration and teamwork enhanced judicious use of resources and ensured the sustainability and effectiveness of policies and programmes.

We collaborate with other stakeholders who are partners and collaborators. Like the Ghana Education Service is a collaborator. We use their school for our programmes. We also have Marie Stopes International Ghana, PPAG, Curious Minds and other minor and major collaborators. (IDI 12)

Our coordination with other groups is good because the judicial service and the community play their role effectively. Now, when we have a case and we report to DOVVSU, they will ensure that they follow-up the case until it is successfully dealt with. (IDI N4)

2. Needs assessments and secondary data provide reliable information on prevalence and determinants of adolescent pregnancy and serve as benchmarks for the development and implementation of policies and programmes.

Governmental organisations, non-governmental organisations and community leaders were described as conducting interviews and literature searches to obtain the information needed to guide the policies and programmes they implement. The information obtained served as benchmarks for identifying the regional prevalence of adolescent pregnancy and its determinants. This helped programme implementers in delivering policies and programmes where adolescent pregnancy is more prevalent and in addressing the key risk factors.

We rely a lot on data. We use especially the Demographic and Health Survey (DHS) data, population and housing census and the Maternal Health Survey as well as data collected by our organization. The DHS will give you the demographic dynamics; it will give you the population dynamics, the rate of teenage pregnancy and unsafe abortion. (IDI 14)

Sometimes we do research first to know what the situation is. We have fisher folks here so sometimes we interview them. You know how social work is. We need to go there and then interview them. In some of these places, there are high rates of teenage pregnancy. So we try to find out what is going on there so that, based on that, we can organise programmes based on their needs. (IDI 5)

3. Youth-friendly health corners (departments within health facilities that provide sexual and reproductive services designed to meet the specific needs of adolescents/youth) increase utilisation of adolescent sexual and reproductive health services.

Adolescents were reported as able to access and use SRH services, including family planning, because they are provided the information they need to access these services and most of the services are accessible, free and provided with high levels of confidentiality.

Adolescents can have access to the adolescent reproductive health services across the country. That is why we have the adolescent health corners in all our facilities. So they are not denied of any service. Whatever health service they need you need to provide it to them. (IDI 12)

Sometimes when the nurses come here, they educate the adolescents about family planning. They tell them that if you cannot abstain from sex, then come for family planning at the health facility. They also tell them that it is free. So some of them go for the family planning. (IDI_K4)

Prevention support system

1. Adequate training and technical support for stakeholders of policies and programmes

Respondents reported that, where providers of SRH services receive the information and assistance they need to organise programmes within organisations

and communities, this enhances the sustainability of programmes by creating an enabling environment for implementation, supervision, monitoring and evaluation.

> Currently, a lot of the health providers have been trained to manage adolescent corners where they provide services. (IDI 13)

> We are confident because we have been trained and have handouts that we can refer to any time we are in doubts. We have been trained on how to go about the education of the girls and we are enthused about it. (IDI E2)

DISCUSSION

This study explored the perceived barriers and facilitators to the implementation of policies and programmes intended to reduce adolescent pregnancy in Ghana. We identified and mapped barriers and facilitators to the domains of the ecological framework.[5] We found this an effective way to analyse our data, aligning well with implementation science and a realist approach to developing understanding of the barriers and facilitators to policy and programme implementation.[18] The perceived barriers identified were gender inequality, family poverty, gatekeeping adolescents' access to SRH information and services, community support for early childbearing and cohabitation, inadequate data systems, lack of collaboration between stakeholders and lack of political will. Perceived facilitators included effective implementation of community by-laws, youth involvement, informal parental and peer support networks, routinely available data, and collaboration and effective coordination between stakeholders.

Barriers to the implementation of policies and programmes

Findings illustrated the important influence of the culture and context within which policy and programmes were implemented. This aligns with the role of community factors in understanding effective implementation of interventions.[5] In Ghana, pervasive gender inequality was commonly reported as manifesting in gender-based violence, child marriage and the requirement for male spousal approval when accessing SRH services. Globally, gender inequality plays a major role in violence against women and girls and weakens their right to decide whether, when or whom to marry.[19] In Ghana, as in most LMICs, gender inequality was also mediated through social norms that subordinate adolescent girls to men and limits their ability to make independent SRH decisions.[6] Gender inequality was also reinforced by family poverty, a phenomenon that led some parents to force their daughters into early marriage while others encouraged their daughters to engage in sex for money to support the family. Family poverty has been shown to exacerbate gender inequalities in other LMICs.[20 21]

Lack of data due to under-reporting, particularly on gender-based violence, enabled perpetuation of gender inequality. In this, our findings resonated with studies in other LMICs which have identified that stigma, shame, financial challenges, fear of revenge, absent or ineffective laws to deal with gender based violence and lack of awareness of services for victims all contribute to low reporting and, in turn, to lack of data.[22 23]

The participants reported that cultural norms stigmatised adolescent sexual activity, particularly for women. This contextual factor, described in the ecological framework as an important community factor,[5] created community resistance to SRH programmes and service provision, based on the misconception that they would predispose adolescent girls to sexual activity. In contrast, there is scientific consensus that access to SRH information and services does not predispose adolescents to sexual activity.[24] Other researches have demonstrated that in most Ghanaian communities, adolescents who access SRH services are seen as 'bad' boys and girls because society frowns on premarital sex.[25 26] This creates shyness and shame in adolescents, especially girls, and reluctance to access SRH services as they are afraid of being seen accessing such services by community members. As in Ghana, a deeply embedded sense of disapproval of adolescent sexual activity has been reported in other LMICs.[6 27] Conversely, some community members and adolescent girls themselves stigmatised late childbearing as a sign of infertility. The stigma of late childbearing was thought to create an environment which influenced some adolescent girls to engage in sexual activity despite prohibitionary social norms.

Participants described the lack of collaboration with, and community support for, the engagement of local stakeholders as mechanisms that led to disapproval of programmes by parents and community members. Collaboration and community engagement are important provider characteristics in the ecological framework as they help to maximise the potential benefits of the intervention and the self-efficacy of the providers.[5] This finding is consistent with studies in other LMICs.[28 29] At the regional and national levels, ASRH has been considered a low priority among politicians and government, which reflects attitudes among political leaders and decision-makers in sub-Saharan Africa more broadly.[30 31] This lack of political will, fuelled by partisan politics, often has its roots in traditional socio-cultural norms that hinder family planning and other pregnancy prevention interventions for adolescents.[32 33] The lack of political will led to inadequate government financial support for SRH programmes. The inadequacy of financial support worsened with the impact of COVID-19, which affected support from donor agencies who otherwise might have supported SRH programmes.

Facilitators of the implementation of policies and programmes

The participants described effective community leadership as a factor likely to ensure the implementation of community by-laws which were designed to regulate risky sexual behaviour of adolescents and prevent child

marriages. Studies in other LMICs have also found that by-laws against child marriage have enabled adolescent girls to make important decisions regarding their sexual behaviour.[34 35] Studies in LMICs have demonstrated that community leaders play key roles in the implementation of community by-laws because they are regarded as holding the traditional power and authority in the community within which these by-laws are implemented.[36] However, in situations where community by-laws hindered access to ASRH services, participants explained that parents and peers found ways to work around the challenges without breaching by-laws. Informal support, such as parent–adolescent communication and peer–peer communication on SRH issues, was described by the participants as helping adolescents make informed decisions when accessing SRH services. Parental and peer support networks have been found to be very important in the adoption and use of ASRH programmes and services in LMICs.[7 14]

Another facilitator described by participants was collaboration and coordination between stakeholders which enhanced access to SRH services, community support and commitment towards the implementation of policies and programmes. The effectiveness of stakeholder collaboration and coordination was facilitated through adequate training and technical support. Stakeholder collaboration and coordination have been found to play major roles in the implementation of ASRH policies and programmes in LMICs.[2] Participants explained that stakeholder collaboration and coordination were strengthened through mechanisms such as community engagement, sensitisation and information sharing. Similar findings in other LMICs also suggest that community engagement ensures the sustainability of programmes and policies.[37 38]

Youth involvement was described as helping the implementation of policies and programmes that focus on the specific needs of adolescents by facilitating their acceptability and utilisation. Within the ecological framework, youth involvement is considered an essential prevention delivery system that can enhance the effectiveness of interventions.[5] In the context of policies and programmes, youth involvement includes the engagement of young people in formulation, implementation, monitoring and evaluation processes.[2 39 40] These can be either direct or indirect. With direct youth involvement, young people are considered as collaboration partners of the policies and programmes. Indirect youth involvement includes involving young people as participants in data collection and getting their feedback on implemented policies and programmes.[2] The participants explained that one of the means of ensuring youth involvement was the establishment of 'youth friendly health corners'. These are units within health facilities that offer reproductive health services including contraceptive counselling, family planning, pregnancy testing, antenatal and postnatal care and sexually transmitted infections screening and treatment to young people.[41] Youth friendly youth corners are considered important interventions for ensuring accessibility, acceptability and utilisation of ASRH services in other LMICs.[42] They also help in providing ASRH without stigma and discrimination and in an environment that ensures confidentiality.[43]

Policy and practice implications

To address the barriers identified, political leaders need to be actively engaged in the implementation of ASRH policies and programmes. Existing legal frameworks on ASRH in LMICs need to be strengthened to address existing ASRH issues such as child marriage and gender-based violence that put adolescent girls at risk of pregnancy. Policy and programme implementers need to be encouraged to involve community members in the development of policies and programmes in order to enhance their support for their implementation. Gender empowerment programmes such as education and training of adolescent girls should be implemented and strengthened at both the community and national level. Community members should be educated on the negative effects of norms that support child marriage, gender-based violence and early childbearing. Governments in LMICs should make the establishment of youth friendly health corners (or the equivalent) part of the healthcare systems of their countries. With poverty identified as a key driver of adolescent pregnancy, government and non-governmental organisations in LMICs should offer training for adolescent girls and engage them in income generation activities that will enhance their economic power and that of their families. Existing economic empowerment initiatives in Ghana such as the Livelihood Empowerment Against Poverty and the school feeding programme should be strengthened to reduce the financial burden on parents of socioeconomically disadvantaged adolescents.

Strengths and limitations

One strength of our study is the triangulation of data collected from three different samples. Involving adolescent girls, professionals and grassroots workers helped us understand the perceived barriers and facilitators from the perspectives of implementers and beneficiaries of the policies and programmes. Purposive sampling of professionals and grassroots workers increased the likelihood of hearing the views of individuals with in-depth knowledge or experience about the subject. However, the study has some limitations. The use of snowballing and convenience sampling of some participants may have led to the exclusion of potential participants who were not recommended or not available at the time of the data collection. Two professionals who could have given different views on the subject were not included in this study because approval from their supervisors was not available in time. Adolescents may have self-censored their responses due to fear of stigma from their peers. Despite assurances of confidentiality, health professionals and grassroots workers may have constrained expression of their views due to concern at negative responses from their employers. Also, not including male adolescents in the study might have led to missing some crucial data that

would have been useful in this study. The inclusion of male adolescents as part of the study participants would have helped address this limitation. Future research should include adolescent boys and fathers of children born to adolescent girls and women.

CONCLUSION

This study concludes that a number of perceived barriers and facilitators play roles in the implementation of policies and programmes on adolescent pregnancy in Ghana. Given the local, national and international significance of this issue, to ensure the effective implementation of such policies and programmes, measures are needed to remove these perceived barriers and enhance perceived facilitators. For the future, implementation of policies and programmes should be recognised as distinct and essential elements of policy-setting. Policy and programme implementation must be conducted as a structured, planned process, taking account of these barriers and facilitators, and with systematic monitoring and rigorous evaluation. This will then enable successful approaches to be identified and publicised.

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REFERENCES

1 United Nations. *United nations International Conference on population and development, Cairo 5-13 September, 1994. programme of action*. New York: United Nations, Department for Economic and Social Information and Policy Analysis, 1995.
2 Ahinkorah BO, Kang M, Perry L. Prevention of adolescent pregnancy in Anglophone sub-Saharan Africa: a scoping review of national policies. *Int J Health Policy Manag* 2020;11:726–39.
3 edRepublic of Ghana. *Adolescent health service policy and strategy (2016-2020*. Accra: Ghana: The Republic of Ghana, 2016.
4 Awuni A. NGO rolls out project to combat teenage pregnancy in upper East. Accra, Ghana, 2016. Available: https://citifmonline.com/2016/04/ngo-rolls-out-project-to-combat-alarming-teenage-pregnancy-in-ue/
5 Durlak JA, DuPre EP. Implementation matters: a review of research on the influence of implementation on program outcomes and the factors affecting implementation. *Am J Community Psychol* 2008;41:327–50.
6 Enuameh Y, White S, Adjei G, *et al*. Perceived facilitators and barriers to interventions aimed at reducing unintended pregnancies among adolescents in low and middle income (developing) countries: a systematic review of qualitative evidence. *JBI Libr Syst Rev* 2012;10:3338–413.
7 Svanemyr J, Amin A, Robles OJ, *et al*. Creating an enabling environment for adolescent sexual and reproductive health: a framework and promising approaches. *J Adolesc Health* 2015;56:S7–14.
8 Keogh SC, Stillman M, Awusabo-Asare K, *et al*. Challenges to implementing national comprehensive sexuality education curricula in low- and middle-income countries: case studies of Ghana, Kenya, Peru and Guatemala. *PLoS One* 2018;13:e0200513.
9 Awusabo-Asare K, Stillman M, Keogh S. *From paper to practice: sexuality education policies and their implementation in Ghana*, 2017.
10 Panchaud C, Keogh SC, Stillman M, *et al*. Towards comprehensive sexuality education: a comparative analysis of the policy environment surrounding school-based sexuality education in Ghana, Peru, Kenya and Guatemala. *Sex Educ* 2019;19:277–96.
11 Pawson R, Tilley N, Tilley N. *Realistic evaluation*. sage, 1997.
12 Hewitt G, Sims S, Harris R. The realist approach to evaluation research: an introduction. *Int J Ther Rehabil* 2012;19:250–9.
13 Brink PJ. Exploratory designs. *Advanced design in nursing research* 1998;2:141–60.
14 Ahinkorah BO, Hagan JE, Seidu A-A, *et al*. Access to adolescent pregnancy prevention information and services in Ghana: a community-based case-control study. *Front Public Health* 2019;7:382.
15 Ghana Statistical Service. *Population and housing census: regional analytical report (central region*. 2013. Ghana: Ghana Statistical Service, 2010.
16 Desrosiers A, Betancourt T, Kergoat Y, *et al*. A systematic review of sexual and reproductive health interventions for young people in humanitarian and lower-and-middle-income country settings. *BMC Public Health* 2020;20:1–21.
17 Braun V, Clarke V. Using thematic analysis in psychology. *Qual Res Psychol* 2006;3:77–101.
18 Zolfaghari E, Armaghanian N, Waller D, *et al*. Implementation science in adolescent healthcare research: an integrative review. *BMC Health Serv Res* 2022;22:1–19.
19 United Nations. *Advancing gender equality and universal access to sexual and reproductive health and reproductive rights*. Bangkok: Pacific EaSCfAat, 2018.
20 Jayachandran S. The roots of gender inequality in developing countries. *economics*2015;7:63–88.
21 Kennedy E, Binder G, Humphries-Waa K, *et al*. Gender inequalities in health and wellbeing across the first two decades of life: an analysis of 40 low-income and middle-income countries in the Asia-Pacific region. *Lancet Glob Health* 2020;8:e1473–88.
22 Hindin MJ, Kishor S, Ansara DL. *Intimate partner violence among couples in 10 DHS countries: predictors and health outcomes: macro international incorporated*, 2008.
23 Palermo T, Bleck J, Peterman A. Tip of the iceberg: reporting and gender-based violence in developing countries. *Am J Epidemiol* 2014;179:602–12.
24 Goldfarb ES, Lieberman LD. Three decades of research: the case for comprehensive sex education. *J Adolesc Health* 2021;68:13–27.

25 Abuosi AA, Anaba EA. Barriers on access to and use of adolescent health services in Ghana. *J Health Res* 2019;33:197–207.
26 Akazili J, Kanmiki EW, Anaseba D, *et al*. Challenges and facilitators to the provision of sexual, reproductive health and rights services in Ghana. *Sex Reprod Health Matters* 2020;28:1846247.
27 Morris JL, Rushwan H. Adolescent sexual and reproductive health: the global challenges. *Int J Gynaecol Obstet* 2015;131 Suppl 1:S40–2.
28 Chandra-Mouli V, Chatterjee S, Bose K. Do efforts to standardize, assess and improve the quality of health service provision to adolescents by government-run health services in low and middle income countries, lead to improvements in service-quality and service-utilization by adolescents? *Reprod Health* 2015;13:1–8.
29 Kennedy EC, Bulu S, Harris J, *et al*. "Be kind to young people so they feel at home": a qualitative study of adolescents' and service providers' perceptions of youth-friendly sexual and reproductive health services in Vanuatu. *BMC Health Serv Res* 2013;13:1–12.
30 May JF. The politics of family planning policies and programs in sub-Saharan Africa. *Popul Dev Rev* 2017;43:308–29.
31 May JF, Turbat V. The demographic dividend in sub-Saharan Africa: two issues that need more attention. *J Demogr Economics* 2017;83:77–84.
32 Onono MA, Brindis CD, White JS, *et al*. Challenges to generating political prioritization for adolescent sexual and reproductive health in Kenya: a qualitative study. *PLoS One* 2019;14:e0226426.
33 Onono MA, Rutherford GW, Bukusi EA, *et al*. Political prioritization and the competing definitions of adolescent pregnancy in Kenya: an application of the public arenas model. *PLoS One* 2020;15:e0238136.
34 UNICEF. *A position paper on harmonizing the age of sexual consent and the age marriage in Ghana*. Accra: Department of Children, Ministry of Gender Children and Social Protection and UNICEF Ghana, 2018.
35 Santelli JS, Spindler E, Moore E, *et al*. Criminalising sexuality or preventing child marriage: legal interventions and girls' empowerment. *Lancet Child Adolesc Health* 2019;3:206–8.
36 Martiskainen M. The role of community leadership in the development of grassroots innovations. *Environ Innov Soc Transit* 2017;22:78–89.
37 Denno DM, Hoopes AJ, Chandra-Mouli V. Effective strategies to provide adolescent sexual and reproductive health services and to increase demand and community support. *J Adolesc Health* 2015;56:S22–41.
38 Chandra-Mouli V, Lane C, Wong S. What does not work in adolescent sexual and reproductive health: a review of evidence on interventions commonly accepted as best practices. *Glob Health Sci Pract* 2015;3:333–40.
39 Calves A. Assessing adolescent reproductive health policies and programs. *POLICY Working Paper Series* 2002;8:1–33.
40 Schaaf M, Boydell V, Sheff MC, *et al*. Accountability strategies for sexual and reproductive health and reproductive rights in humanitarian settings: a scoping review. *Confl Health* 2020;14:1–18.
41 Asare BY-A, Aryee SE, Kotoh AM. Sexual behaviour and the utilization of youth friendly health services: a cross-sectional study among urban youth in Ghana. *Int J Afr Nurs Sci* 2020;13:100250.
42 Ainul S, Ehsan I, Tanjeen T. *Adolescent friendly health corners (AFHCs) in selected government health facilities in Bangladesh: an early qualitative assessment*. Bangladesh: Population Council, 2017.
43 World Health Organization. *Making health services adolescent friendly: developing national quality standards for adolescent friendly health services*. Geneva: World Health Organization, 2012.