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Very young adolescent perceptions of growing up in rural southwest Uganda: Influences on sexual development and behavior

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Abstract

Very young adolescents (VYAs) are at the beginning of major physical, cognitive, emotional, and social changes that will set the course for a lifetime of health risks or resilience and yet, they have been largely an invisible group in global health research. The study explored perceptions of VYAs of the context for adolescence in rural Uganda and how these perceptions relate to sexual and reproductive health. Twenty VYAs, aged 11-14 from a southwest province in Uganda participated; 10 girls and 10 boys. All were of low socioeconomic status and attending school. With Institutional Review Board approval, a community-based participatory design was used with community advisory board (CAB) guidance. Community mapping and photovoice were data collection strategies as deemed developmentally appropriate for this age group. VYAs narrated their maps and photographs in focus groups. Field notes were taken on observations of adolescent life in the villages. The CAB assisted in the interpretation of data. Focus group interview transcripts and field notes were thematically analyzed and triangulated with observational field notes to verify and amplify findings. VYAs dichotomized people and places that offered support and protection or exposure to risk and vulnerability. Cultural norms (gendered expectations for roles and responsibilities, the primacy of work), the influences of significant others (peers, family, other important adults) and places in their environment that represented either safe havens or danger zones comprised the major themes. VYA perceptions of their context and experiences will contribute to design of developmentally appropriate and community tailored interventions to promote their health. *(Afr J Reprod Health 2021; 25[2]: 50-64).*

Keywords: Community advisory boards, context for adolescence, participatory design, photo voice

Résumé

Les très jeunes adolescents (VYA) sont au début de changements physiques, cognitifs, émotionnels et sociaux majeurs qui ouvriront la voie à toute une vie de risques pour la santé ou de résilience et pourtant, ils ont été en grande partie un groupe invisible dans la recherche en santé mondiale. L'étude a exploré les perceptions des VYA du contexte de l'adolescence en Ouganda rural et comment ces perceptions sont liées à la santé sexuelle et reproductive. Vingt VYA, âgés de 11 à 14 ans d'une province du sud-ouest de l'Ouganda y ont participé; 10 filles et 10 garçons. Tous étaient de faible statut socio-économique et fréquentaient l'école. Avec l'approbation du comité d'examen institutionnel, une conception participative communautaire a été utilisée avec les conseils du conseil consultatif communautaire (CAB). La cartographie communautaire et la photographie étaient des stratégies de collecte de données jugées appropriées sur le plan du développement pour ce groupe d'âge. Les VYA ont raconté leurs cartes et leurs photographies dans des groupes de discussion. Des notes de terrain ont été prises sur les observations de la vie des adolescents dans les villages. Le CAB a aidé à interpréter les données. Les transcriptions des entretiens des groupes de discussion et les notes sur le terrain ont été analysées par thème et triangulées avec des notes d'observation sur le terrain pour vérifier et amplifier les résultats. Les VYA ont dichotomisé les personnes et les lieux qui offraient un soutien et une protection ou une exposition au risque et à la vulnérabilité. Les normes culturelles (attentes sexuées pour les rôles et les responsabilités, la primauté du travail), les influences d'autrui (pairs, famille, autres adultes importants) et les lieux de leur environnement qui représentaient soit des refuges sûrs, soit des zones de danger constituaient les principaux thèmes. Les perceptions de VYA de leur contexte et de leurs expériences contribueront à la conception d'interventions adaptées au développement et adaptées à la communauté pour promouvoir leur santé. *(Afr J Reprod Health 2021; 25[2]: 50-64).*

Mots-clés: Conseils consultatifs communautaires, contexte pour l'adolescence, conception participative, voix photo

Introduction

Adolescents in resource-constrained countries

Uganda has the second youngest population in the world and one of the highest youth unemployment rates in SSA[1]. Of this "bulging youth population"[2], most live in poverty, a third on less than $1 a day. While 83% of children are enrolled in primary school, the mean completion rate is 55% and far less in rural areas where 85% of the population resides[3], 22% go on to attend secondary school and less than 5% attend a post-secondary educational program[4-5]. School retention and connectedness have been found to be some of the most effective means to promote adolescent health and thriving[6]. A disproportionately young population with low educational attainment, and limited resources and employment opportunities leads to an uninterrupted intergenerational cycle of poverty[7-8].

Sexual and reproductive health in sub-Saharan Africa

Good SRH is key to development of capacity in adolescents, yet they have disproportionate risk of poor SRH outcomes. Globally, a third of the new HIV cases occur in ages 15-24[9] and Sub-Saharan Africa (SSA) bears 71% of the global burden of HIV[10]. There is 7% prevalence of HIV/AIDS in Uganda and prevalence is higher in females. Only 39% of adolescents have comprehensive HIV knowledge, and only 31% boys and 24% girls who are sexually active report condom use[11]. Uganda, an early model of effectively decreasing the prevalence of HIV is again trending upward and this is thought to be due to complacency following the introduction and access to antiretroviral drugs. It now has the third highest rate of new infections in SSA[12]. Other STIs, including gonorrhea, chlamydia, trichomonas and syphylis have disproportionate prevalence in Ugandan adolescents, with higher rates for girls and many significant barriers to treatment, including shame, stigma, and lack of confidentiality[13].

Early pregnancy is common in Uganda; 33% of adolescent girls give birth by age 18[14]. Young mothers are especially vulnerable to pregnancy complications, including eclampsia, anemia, bleeding, and infection due to their physiological immaturity[15]. Eighty percent of women who develop obstetric fistula are adolescents and 44% of maternal mortality occurs in ages 15-24[16]. Poor birth outcomes like prematurity, low birth weight, and infant mortality are significantly higher for teen mothers[17].

Adolescent SRH risks are driven by power disparities faced by SSA women. Early sexual initiation, often forced or coerced by older boys or men, cultural acceptance of early marriage, and gender-based violence contribute to high risks of pregnancy, HIV and other STIs[18]. Further, there are limited age-appropriate reproductive health services for adolescents in Uganda[19]. Adolescents, especially young women and girls shoulder a disparate burden of health and other social consequences of poor SRH outcomes, thus foreclosing on a promising future.

Many of the leading health problems in adolescence are related to sexual and reproductive health (SRH), are HIV and other sexually transmitted infections (STIs), early pregnancy and parenting, pregnancy-related conditions (obstetric fistula, maternal death), and sexual exploitation and abuse[20].

Paradigm shift to positive youth development

In Sub-Saharan Africa (SSA), research on young people has centered almost solely on adolescent risk behaviors that contribute to these problems and has lacked attention to individual, family, community, and structural strengths that have potential to mitigate or protect them from risk. Sexual and reproductive health (SRH) research to date has predominantly focused on individual risks associated with STIs, including HIV, early pregnancy, and gender-based violence and exploitation. This has hampered the development of effective interventions that address the complex dynamics leading to poor adolescent health and developmental outcomes.

It is important to counterbalance our understanding of adolescent developmental and social risks with an exploration of their strengths and protective factors. Developmental assets are individual qualities (e.g., confidence, resilience) and social supports/resources (e.g., family, caring school environment) that contribute to adolescents growing up to be responsible and productive adults. Developmental assets are associated with good

health and thriving; adolescents with more assets are less likely to engage in risky behaviors, including substance use and sexual risk taking and more likely to succeed in school, be engaged in their communities and be prepared for adulthood[21]. Since research has been dominated by identifying risks, it is crucial to have a more complete picture of all that is involved in contributing to, protecting from and mitigating risk. Understanding adolescents from a strengths- based perspective within their socioecological context provides the anchor for integrated interventions.

However, there has also been a dearth of research on very young adolescents (VYAs), ages 10-14 years old. Several United Nations groups, including UNICEF, Joint United Nations Programme on HIV/AIDS (UNAIDS), UNFPA, and the Population Council joined forces to call for a body of research on the reproductive health needs of VYAs. In their joint publication, *Investing When it Counts: Generating the Evidence Base for Policies and Programmes for Very Young Adolescents*[22] they highlighted the dire need to expand our understanding of how to prevent health risks like HIV and teen pregnancy that often occur in middle adolescence, ages 15-17. Prevention needs to start in early adolescence while they are amenable to learning new behaviors and before risky behaviors are initiated and established.

Building the capacity of young people is an issue of global importance, contributing to the social and economic development of every nation. This is of particular significance in resource-constrained countries where there are higher proportions of adolescents in the population and poverty affects all aspects of their health and development, thus, their transition to adulthood. Uganda has one of the youngest, most rapidly growing populations with 57% under age 18[23]. With a gross national income of $740 per capita per year[24], 83% of Ugandan children live in multidimentional poverty, including dimensions of poor health care, nutrition, education, housing, water, and sanitation[25]. They face an excessive burden of morbidity and mortality and this limits not only their quality of life, but also the long-term contributions they make to society.

Methods

Underpinned by a participatory epistemology[26], we used a community-based participatory research (CBPR) design to explore the individual and social factors that contribute to adolescent sexual development, including individual, family, community, and structural resources and constraints with potential to impact SRH in VYAs in rural Uganda. Conducted in multiple phases, this paper will report on the component of the study whose aims were to describe VYA perceptions of the sociocultural context for adolescents in their village and to analyze how these factors might influence their later sexual development and behavior. Data from other stakeholder groups, including community leaders, parents and young adults will be reported elsewhere. With a deeper understanding of the SRH needs of VYAs, including their important individual perspectives, the long-term goal of the research is to develop age-appropriate, culturally tailored, and community informed interventions to improve their health.

Institutional review board approval was secured from the US and Ugandan universities with which the co-principal investigators were affiliated. With respectful and authentic community engagement as our top priorities, we first met with village authorities and community leaders in a rural village in southwestern Uganda for research entrée. A community advisory board (CAB) of 10 people from the village who have expertise in various aspects of adolescent and community life was mobilized. When a community analyzes its own strengths, weaknesses and potential opportunities for change, it creates awareness and collective ownership of the issues and a shared commitment to change[27]. The CAB has served as a liaison to help build a trusting partnership between the researchers and local community members by providing guidance to the research team in all aspects of the study.

Participant Recruitment

Our CAB guided us in the appropriate manner to approach parents for permission for their children to participate in this study. In collaboration with the CAB, the head of the local primary school selected

students in the target age group to participate in the study. Research assistants (RAs) then visited the parents and other caregivers of these potential participants in their homes. They discussed the study in Runyankore, the local dialect, including its purpose, the activities their children would be involved in, and potential study risks and how these would be addressed. Parents were given the opportunity to ask questions and raise concerns. Informed consent was obtained from parents who agreed to have their VYAs participate. This consent included permission to use the photographs that their children took in the photovoice arm of the study in any presentations or publications with the caveat that all facial features of any persons depicted would be obscured in order to assure anonymity. Because the study was focused on adolescents of a young age (CAB members described this age group as "innocent"), parents were assured that we would not be asking VYAs explicit questions with sexual themes or about their or others' sexual behaviors, but that VYAs would be questioned more generally about growing up in their community and challenges they face as adolescents[28]. Examples of these questions were: What do you like to do with your free time? Tell me about how you spend a typical day. Where are the places in your village that adolescents spend their time? What are good things about being an adolescent in your village? What do you think are hard things about being an adolescent? Where are the places in your village that you feel safe… unsafe? Later, at the school where data collection with the VYAs would take place, VYAs with parental consent were approached by a member of the research team to obtain verbal assent to participate. This was done privately and the voluntary nature of participation was stressed to minimize any potential feelings of coercion.

Sample

Parental consent was obtained for 20 VYAs (10 girls, 10 boys), ages 11-14 years old (mean=12.75) who then assented to participate and none refused. They were from five villages in southwestern Uganda and in grades P5 and 6. All but one lived with both parents, one lived with a grandmother and uncles, and several had grandparents and other relatives in the household. Participants had 0-8 siblings (mean=3.4). Parent occupations included peasant farmer, builder and cook. All families attended church; participants were Protestant (n=12), Catholic (n=4), and Pentecostal (n=4).

Data collection

We used two strategies to gain perspectives of VYAs, including community mapping and photovoice (UNFPA & Population Council, 2006). These approaches are considered to be age-appropriate mechanisms for getting important perspectives from an age group who may not have the verbal capability to participate in a formal interview. It is essential to have an understanding of the social context for growing up from VYAs' perspectives in order to understand what things may be of positive or negative influence on their SRH. The issues of misinterpretation and misrepresentation which are some of the weaknesses of the photovoice approach to data collection were minimized by allowing the VYAs to interpret and attach meaning to the photographs which they had taken.

Community mapping. On a Saturday morning at the local school, VYA participants gathered for a community mapping exercise. Working in five small groups and given large sheets of paper and colored markers, we asked VYAs to visually represent their village, including the spaces where adolescents spend their time and what they do there. Following the activity, RAs held five focus groups of four VYAs each to ask participants to narrate their maps. Discussion was prompted with questions: Where do you spend your time? What places do you go? Tell us about all of the places on your map that adolescents spend their time. Are there places where only boys go? Are there places where only girls go? Which places are safe for an adolescent to go? What about this place makes it safe? Which places are unsafe for an adolescent to go? What about this place makes it unsafe? Individual and small group interactions with VYAs were predominantly conducted in English as most young people spoke English in school, but there was a bilingual RA in each group to communicate in Runyankore, when clarifications were necessary. Research assistants took field notes on the group dynamics. Focus groups were digitally recorded and

transcribed verbatim. Both written consent and assent was obtained from parents and the participating VYA accordingly. The study was approved by Mbarara University of Science and Technology Research Ethics Committee (reference MUREC 160133) and Uganda National Council of Science and Technology (reference ss4607)

Photovoice. At the conclusion of the mapping activity, VYAs were given disposable 'point and shoot' cameras for taking photographs that reflect their lives in the village, including things that are important to them, how they spend their time, and positive and negative things about being an adolescent. The Co-PI with the help of the RAs instructed them on how to use the camera and about the ethics of photo taking to protect them as well as members of their community. They led an interactive discussion of topics such as acceptable ways to approach someone in order to take their picture, not taking pictures without knowledge or permission, and general boundaries around types of activities that are or are not appropriate to photograph. After one week, we collected the cameras and photographs were developed. Software was used to obscure all human faces in the photos to protect the anonymity of those featured. Research assistants then met with the VYAs in four same gendered groups of 5 participants. VYAs were asked to select 3-4 of their most meaningful pictures and asked to tell the story of each photograph using question prompts: What is this picture about? What is important about this picture to you? What does this picture tell us about being an adolescent? We took field notes and focus groups were recorded and transcribed.

Research assistants also engaged in naturalistic observation in the community, spending several days taking field notes on VYA daily activities in public places where young people spend time, including the marketplace, doing chores in public spaces (drawing water at the community pump, washing clothes at the river), leisure, and recreational settings (football/soccer pitch). The observations and notes from the naturalistic observations were used as probes during the focus group intervews with the VYA.

Data analysis and interpretation

We analyzed focus group interviews from the community mapping exercise and the photovoice activity using a six-step process of thematic analysis[29]. Research team members familiarized themselves with the transcripts by reading them through and then, generated initial codes. Codes were merged into thematic categories and refined by naming, defining and reviewing them as a team. With consensus on the most salient themes to represent the data, we developed a final report on codes and code categories. This age group is characterized by concrete thinking and less able to articulate a detailed narrative about their experiences, therefore, we used field notes from naturalistic observations in the village to further elaborate details of the places and people the VYAs were discussing.

The research team returned to the village during a subsequent visit and presented the findings to the CAB. In this discussion, the CAB assisted with further interpretation of the themes. Likewise, the team visited the VYAs, disseminating the findings to them in an interactive activity, giving them copies of their photographs, and thanking them for their participation.

Results

Findings from the analysis of VYA community mapping and photovoice data were organized around two broad themes: Exposure to Protective Influences and Exposure to Risk and Vulnerability (see Figure 1). An integration of data from VYA maps and photos served to develop and refine these themes and their subthemes, presented below.

In narrating the features of their community maps (see Figure 1), VYAs were able to clearly articulate the spaces in which the activities of their daily lives took place. Central spaces on the maps were the school, church, and the farm or garden—places where these young people spend much of their time. The types of spaces were identified by the activities that took place there: places for doing

chores, playing, socializing with peers, learning, worshipping/praying, and "wasting time".

The prominence of the church, the school and the trading center in every map was noteworthy as these three places represented what VYAs saw to be the poles of the safety continuum: church and school as safe havens and the trading center as a danger zone where there is ever-present risk of bad things happening.

Positive and negative exposures

The maps presented an organizing visual of two major themes that were elaborated on in the photovoice data: *Exposure to protective influences* and *exposure to risk and vulnerability*.
Significant people and places were spoken about in concrete and dichotomous terms, as is age-appropriate. They either offered protection and promoted positive growth or exposed one to risk.
Subthemes that represent factors that contribute to VYA exposures and cut across both protective and risk exposures were categorized as follows: cultural norms, relationships, and environment (see Figure 2).

Cultural norms. Families and others in the community engaged in traditional cultural norms and practices that communicated the expectations of children set by society. In this southwestern rural Ugandan culture, clear and *gendered expectations* for individual behavior, responsibilities, and social roles were strongly internalized by VYAs. This subtheme of gendered expectations was present in the many pictures of the tasks they were involved in every day. Boys were responsible for working on the farm, plantation or garden, grazing animals, doing mechanical work and learning skills for income generation to help support the family (see Figure 3).

Girls maintained the household, sweeping, cooking, drawing water, collecting firewood and caring for younger siblings (see Figure 4).

With this gendered division of labor, boys were more independent in their movements around the village while girls were under more parental supervision at home with greater behavioral restrictions. The level of adult supervision an individual experienced left the VYA feeling either protected or vulnerable. An older sister, for example, supervised her VYA brother at home. He said, "She helps me (with) work like homework. She also helps me and teaches me how to peel matooke. So like when mom is not home, I'm also able to get a knife and peel and be able to eat." In contrast, chores like drawing water and gathering firewood were often solo tasks and girls reported feeling unsafe when sent alone to draw water or gather firewood, especially at night, as exemplified in this exchange:
Interviewer (I): Are you okay with going to the well?
Participant (P): Sometimes I'm not okay with it. Sometimes it is late. And you are sent to the well. And I don't like it.
I: …so what do you fear? P: Thugs. Thieves
Field notes also indicated that mixed age groups of young people "hang out" at the well and other water sources in the village and younger adolescents reported being harassed or "beaten" by older adolescents there.

Another important cultural norm articulated by the VYAs was the *primacy of work*. This subtheme emphasized work as a mechanism to build skills for their future independence in adulthood. Work was also necessary to maintain one's family and all members have a part in this endeavor. The placement of priority on work, however, was often at the expense of school attendance. One boy took a picture of his cousin and told this story:

There is a person doing bricklaying. When I am about to go to school, he stops me and tells me to help him do the grazing as he does the bricklaying. And when I refuse, he beats me up. He stays next to us and he is the son to my uncle. And he also tells me to get him sand as he is doing the bricklaying. He tells me to fetch water for making bricks and tells me to use my legs to mix the soil. I don't like this because he doesn't want me to go to school.

Other VYAs told of missing school to graze animals and having to complete chores before walking to school or doing homework. One boy took a picture of a peer who did not go to school. "Instead, he fetches water, so when I see him I feel bad because he's carrying heavy jerry cans of water. He also fetches firewood, so when I look at him I feel bad."

Figure 1: Community map

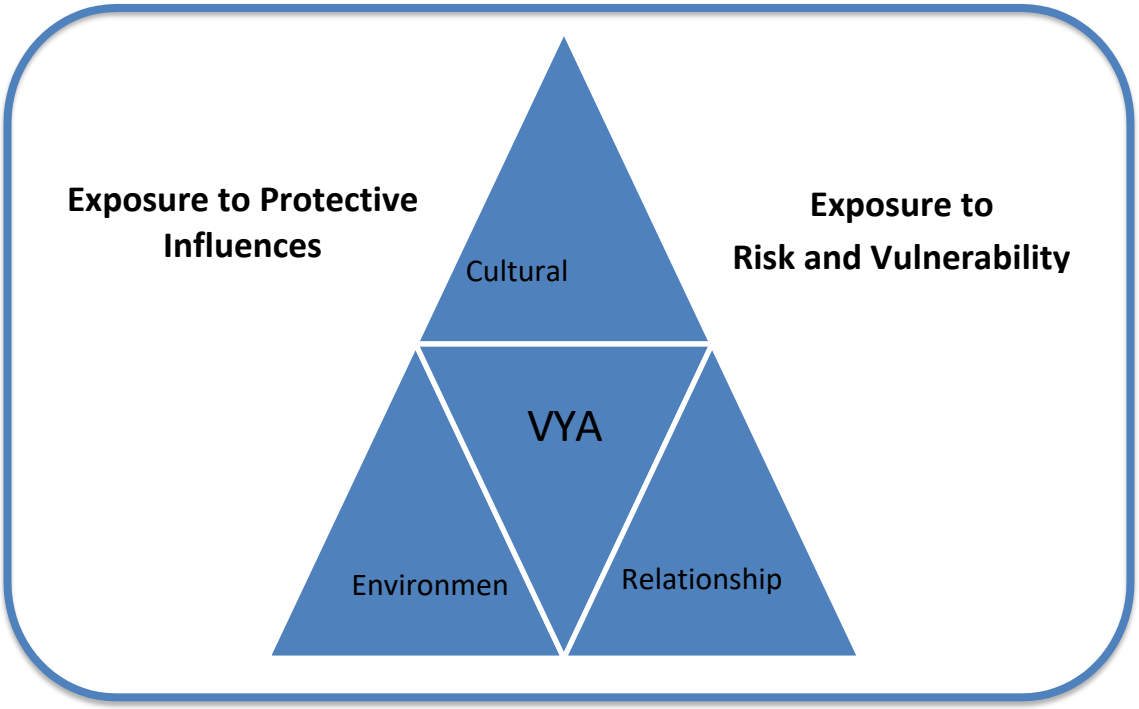

Figure 2: Thematic findings

Relationships. Many of the photos the VYAs took depicted relationships they had that were protective and supportive or exposed them to risk and vulnerability. Subthemes in this category included *peer influences*, *family influences*, and *other adult influences*. In each of these relationships, influence was framed dichotomously as either good or bad. A girl narrated a picture of her supportive friends (see

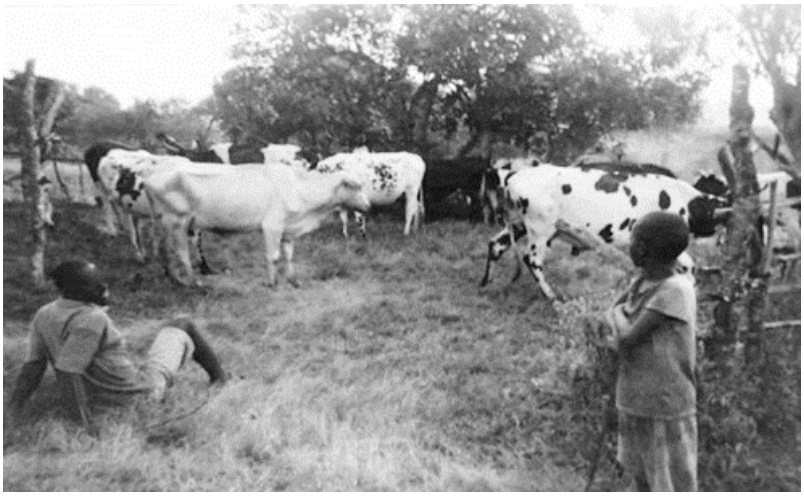

Figure 3: Very young adolescent boys grazing cattle

Figure 4: Very young adolescent girls fetching firewood

Figure 5): "These are my friends. They help me when I am at school for example, playing games. Help me with homework. And also when we are at home, when I tell them we go to the well, they quickly join you. If you have some difficulties, they help you." Another girl chimed in, "For example, if I am scared to move in the road at night, they escort me".

Peer influence was also seen as negative and participants told stories of "bad peers" who bullied them, beat them, and encouraged negative behavior like drinking and shoplifting. A boy told this story about one of his pictures:

P: I took the picture of these children because they do bad touches. I: They do bad touches? Like which kind of touches?

P: Like touching on the girls. Ehh, like touching on the girl's breast and when you touch them, the girls end up reporting you and you are punished by the teachers. Family influences were generally reported to be positive and supportive. There were many pictures of parents, siblings and other relatives.

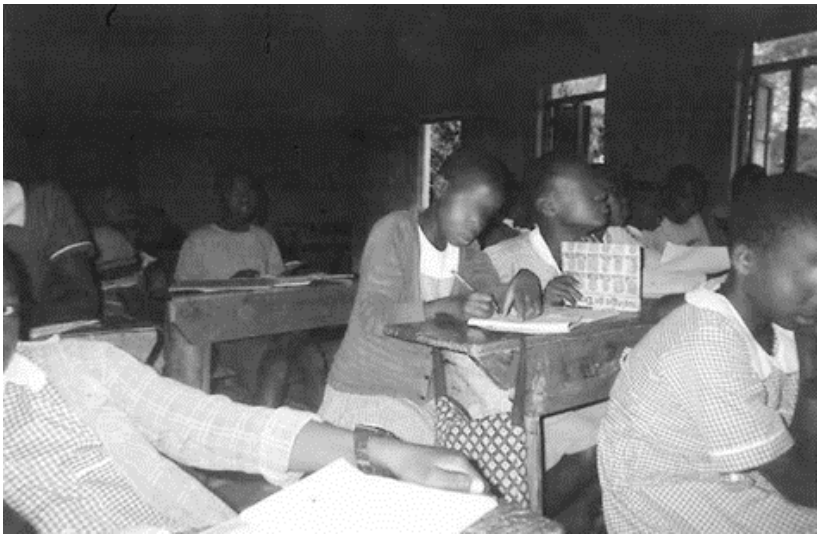

Figure 5: Very young adolescent attending lessons at school

Figure 6: A local church

A girl spoke fondly about her uncle: "I took a picture of my uncle because I feel safe around him. He protects me by providing me with basic necessities without asking for anything in return." Another girl said, "I snapped this picture of mother because I love her and she loves me. I think when I will be with her in future, she will guide me to be a good teenager and also teach me to be well behaved".

Other significant adults who played protective roles in the lives of VYAs included teachers and priests or preachers. A girl said this of the preacher in her picture: "The preacher was preaching the Word of God. Through preaching, he advises us to stop doing bad things. If you are going to do something bad, he stops you".

Other adults known to participants exposed them to risk as exemplified by a boy's discussion of his family's servant:

In this picture (Fig. 8), there is a man who sends me to go carry jerry cans [to draw water]. And this man drinks a lot and after drinking, touches me and I get the alcohol smell. He brings the alcohol and tells me to try it. He tells me to go to the night discoes. I hate

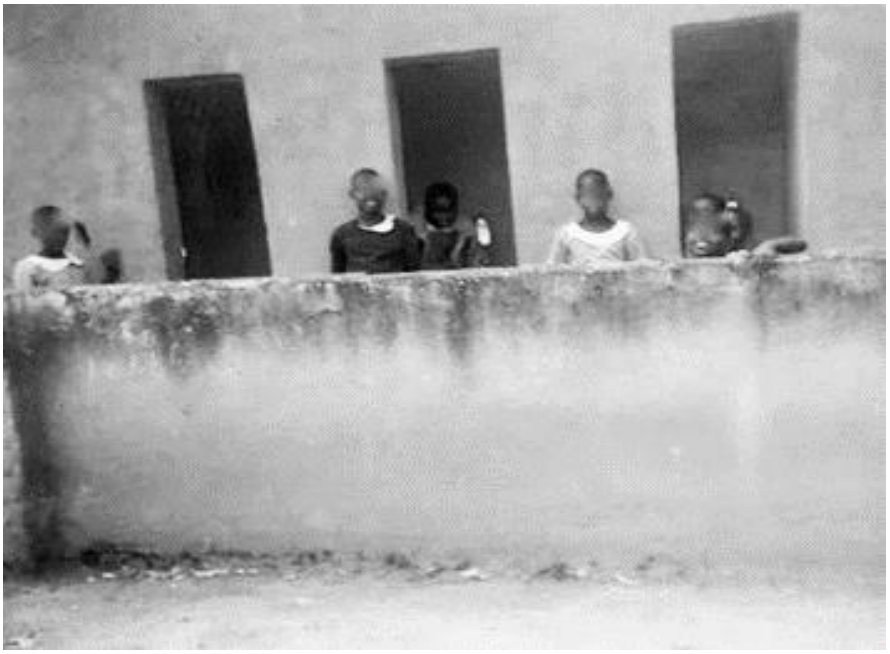

Figure 7: Girls' latrine at school

Figure 8: Drunkard at the trading centre

it when he tells me to go look for the cows when they escape at night. And he also tells me that when you eat the pesticide for the animals, you don't die and he encourages me to eat it. [In this case, it should be noted that there is no formal mechanism for reporting child vulnerability or potential abuse as expressed here. We reported this story to the CAB for them to follow up on as indicated in our research protocol.]

Environment. Subthemes that represented exposures to protective influences or risk and vulnerability in the environment were places characterized as either *safe havens* or *danger zones*.

Safe havens included church, school and home because VYAs were with who they perceived to be trusted others: parents, teachers or worshipping, a safe activity (see Photo 5).

A girl said, "When we are at church, we are usually in prayer therefore we are not distracted to do bad things. We can't go out to fight or quarrel." A boy summarized these feelings of protection: "At school, the teachers protect us. At church, we go there to ask God to protect us." Another said, "Church is where they teach us good morals" (see Figure 6).

Danger zones that made participants feel vulnerable were isolated or unsupervised spaces like out in the bush, the farm or going to the well or borehole to draw water, especially at night. A boy reported, "At the borehole, you could find thieves, rapists and kidnappers out there. Sometimes the boys touch the girls at the well. They do not like to go there, especially at night." There were also spaces where groups of children were predominantly unsupervised, like the schoolyard or football pitch where bullying and fighting were commonplace and the latrines at school-- Ugandan research team members identified latrines as spaces of vulnerability to both physical and sexual abuse (see Figure 7).

No unsafe space identified by these young people received as much attention as the trading centre, a crowded central area of the village with shops, produce stalls, services, and places where people gathered to socialize or "waste time." Very young adolescents were often sent to the trading centre to buy things and were confronted with people and activities that made them feel vulnerable, uncomfortable, or fearful. There were several stories of their interactions with drunkards wandering in the trading centre, like this boy narrated (see Figure 8):

P: There is a drunkard (at the trading centre). He beats me up. I: Has he ever beaten you.

P: Yes, he has beaten me. He has done it three times. I don't like him.

There are 'bad' peer groups that hang out at the trading centre and VYAs expressed feeling an ever-present threat of violence from them. A girl said, "At times you are forced to shoplift by bad groups and when you get caught, you are beaten." Very young adolescents also told of the presence of strangers who scare them as in this boy's report: "I am afraid because normally they are armed with knives and bottles that they can hit you with." Despite the danger that VYAs described in the trading centre, there was also attraction to it. Boys liked to go to the trading centre as they can buy things and watch pirated movies at the video halls. They go there to "waste time." From field notes, it was noted that most films have adult themes and are not appropriate for children; there is often pornography with explicit sexual themes that children view without restriction. Another boy described, "There are betting places and gambling. These places spoil your future in a way that if you're given school fees you'll end up taking it to the betting".

In summary, VYAs were able to concretely describe their daily lives and activities through these mapping and photovoice exercises. They dichotomized people and places that offered them support and protection or exposed them to risk and vulnerability. Cultural norms, including gendered expectations for roles and responsibilities and the primacy of work, the influences of significant others like peers, family and other important adults, and places in their environment that represented either safe havens or danger zones comprised the major themes of this study.

Discussion

The perceptions of the VYAs give us an important lens from which to understand factors that may have influence on their SRH and development from their own perspectives. They underscored not only factors that may increase their risk for negative exposures and harmful experiences, but considerable developmental assets in the form of social supports, including parents, family members and peers that are protective and may contribute to positive development and good health.

Enhanced parental supervision for girls is aimed at providing safety. On the contrary, findings indicate that other tasks of necessity that girls do outside the home expose them to risk – fetching water and firewood confront them with potentially unsafe places and people. In addition to maintaining safety, supervision has another protective function reported by Ugandan members of the research team:

When a girl gets pregnant it brings shame on the family and more particularly the mother and other girls[30]. There is a local saying that one girl's pregnancy outside marriage is a rebuke to all girls in the village. This traditional norm is protective, potentially contributing to delayed initiation of sexual behavior. Young adolescent boys did not describe a similar experience of parental supervision for protection or safety, and yet, they also reported fears of harm and exploitation in unsupervised settings.

Young adolescents clearly enact the gendered roles that are expected of them in their culture and community. Gender roles are an important aspect of the community. These roles are part and parcel of identity, relationships and social order as a whole[31]. Many of their roles and responsibilities represent the primacy of work as a means to survive in this rural, low income context: doing chores and child care to sustain the family, taking responsibility for activities to promote family livelihood like cattle grazing or working in the garden, and learning skills with income generating potential. Roles are modeled, taught and supported by parents, extended family members, older siblings and other significant adults—all of whom were positively represented in VYA photos and their narratives. Some daily role related activities, however, place the VYA at risk for sexual contact, coercion, exploitation, and abuse because they are carried out in places that lack supervision by familiar and trusted adults.

Fetching water and firewood take VYAs to places that are isolated or inhabited by older peers or unfamiliar people. They shared their fears of physical and sexual abuse when alone as expressed in reports of "bad touches" and "beatings" by older adolescents and the threat of unsafe adults who are described as "drunkards, rapists, and defilers." They did, however, profess that there is safety in numbers when being accompanied by friends or older siblings in conducting these tasks. With a heightened awareness of VYA fears in day-to-day activities, the community has the opportunity to be thoughtful about models of supervision that enhance existing supportive assets that young people describe.

Some young people may drop out of school to attend to their work roles, such as the out- of-school peer who was described as carrying heavy jerry cans of water or the participant whose cousin forces him to stay home to help make bricks. Staying in school as a protective factor for delayed sexual behavior is well documented[32]. Educational attainment is one of the factors that matters most for postponing sexual initiation and early childbearing as well as increasing appropriate use of condoms and other forms of contraception to prevent pregnancy and STIs, including HIV. Increasing community awareness of both risks and existing resources to be strengthened creates an opportunity to develop more comprehensive and community-informed interventions to promote adolescent SRH and positive youth development[33].

Narratives and observations about the trading centre as an unsafe place for young people were particularly surprising, especially to our CAB members who were quite concerned with the fears experienced by our young participants. The trading centre is a bustling hub of much village life, filled with people who are known to one another. It is possible that a community-informed, culturally appropriate bystander intervention could be developed for adults to look out for vulnerable children and adolescents in this space and interrupt physical violence, inappropriate sexual contact, and exposure to sexualized media and behaviors that are inappropriate for young people. Enhancing community oversight and protection of children who they view as innocent is consistent with rural community values of communal involvement in the upbringing of children[34]. Bystander efforts developed in a collaborative of community leaders (e.g., teachers, pastors, imams, health care workers), parents, and researchers represent a hallmark outcome of CBPR.

Finally, early adolescence is an ideal time to be exposed to and learn important individual and social behaviors that may promote their health and well-being, especially in the area of SRH. Very young adolescents in this study had strong same-gender peer relationships and were at the beginning of the physical changes and social transitions of puberty. A school-based sexuality and life skills education program with parent and teacher education components can provide in- school VYAs with correct knowledge about their developing bodies[35].

Further, it can teach skills to enhance respect of self and others, including having respect for one's own and others' bodies and sexual agency, learning effective communication about sexuality and behavior (e.g., self-protection, sexual decision making, and refusal skills), and developing mutually respectful male-female relationships. Including parents and teachers addresses their knowledge deficits, reinforces social norms of respect for one another, and may increase comfort with more open communication about adolescent sexuality.

Very young adolescents in rural Uganda are at the beginning of their trajectory to adulthood. An investment in their SRH and positive development at this stage leaves open the promise for a healthy and productive adult life.

Limitations

The findings from this study represent the perspectives of VYAs from on village in one region of Uganda, therefore, future research is needed to expand representation to other regional groups. Further, a limitation inherent to the interpretation of qualitative data is the potential for misrepresentation or misinterpretation. To minimize this threat, the VYAs themselves narrated the stories of their photos, giving their perceptions in their own voices. Interpretation of meaning was also discussed with the CAB to lend confirmation to the analysis of the research team.

Conclusion

Many of the leading global health problems in adolescence are related to sexual and reproductive health, such as HIV and other sexually transmitted infections, early pregnancy and parenting, pregnancy-related conditions, and sexual exploitation and abuse. Adolescents bear a disparate burden of morbidity and mortality, limiting their quality of life and long-term societal contributions. Sexual and reproductive health research in sub-Saharan Africa has typically focused on middle and late adolescence, as well as individual risks and behaviors.

Through age-appropriate research strategies, such as community mapping and photovoice, perceptions of very young adolescents can be collected and have potential to contribute to the planning of developmentally appropriate interventions to protect their sexual and reproductive health. Very young adolescents concretely articulated their perceptions of their exposures to both protective influences and to risk and vulnerability, thus giving a more complete picture of factors that contribute to their sexual health and development.

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Author's contributions

All authors made a substantial contribution to this project. Kools and Nyakato were the Co-Principal Investigators, conceptualizing and designing the study and leading the team in data collection, analysis and interpretation. Wright was the project director, managing field work and data and with Achen, Chambers, Kaziga, and Ogunnaya, engaged in data collection and analysis.

Conflicting interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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