



OPEN ACCESS

EDITED BY
Julie Ann Robinson,
Flinders University, Australia

REVIEWED BY
Indra Kiling,
University of Nusa Cendana, Indonesia
Iain Hay,
Macquarie University, Australia
*CORRESPONDENCE
Nanyama M. Elizabeth

RECEIVED 01 November 2022 ACCEPTED 29 November 2023 PUBLISHED 31 October 2025

☑ nanyamae@yahoo.com

CITATION

Opiyo RA and Elizabeth NM (2025) Going beyond mere rhetoric of school readmission for adolescent mothers: a case study in remote villages in Kenya with a high prevalence of early pregnancy. *Front. Educ.* 8:1086706. doi: 10.3389/feduc.2023.1086706

COPYRIGHT

© 2025 Opiyo and Elizabeth. This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY). The use, distribution or reproduction in other forums is permitted, provided the original author(s) and the copyright owner(s) are credited and that the original publication in this journal is cited, in accordance with accepted academic practice. No use, distribution or reproduction is permitted which does not comply with these terms.

Going beyond mere rhetoric of school readmission for adolescent mothers: a case study in remote villages in Kenya with a high prevalence of early pregnancy

Rose Atieno Opiyo and Nanyama M. Elizabeth*

Masinde Muliro University of Science and Technology, Kakamega, Kenya

Adolescent motherhood is widespread and can have far reaching impacts on the education and the health of girls. WHO has called for research on the interventions to promote school re-entry, retention and completion by adolescent mothers that are being implemented in diverse settings. This study answers this call in the context of the Kenyan government's current quidelines to support adolescent mothers' return to school. It documents diverse stakeholders' beliefs about the interventions that are effective in supporting continued schooling among adolescent mothers. Rich qualitative data were collected through semi-structured interviews with 32 respondents in a rural area of Kenya with a high prevalence of teenage pregnancy. A thematic analysis indicated that most, but not all school principals supported the government's 100% transition and re-entry policies. Although some principals were proactive in sensitizing students' parents/guardians about this policy, one actively resisted it. Adolescent mothers valued schools' attempts to support their parenting, provide childcare and menstrual hygiene facilities, and to promote their social acceptance by other students. The parents of adolescent mothers expressed diverse views ranging from conservative perspectives that favored early forced marriage to preserve the family's social standing to liberal perspectives that promoted open communication about sexuality. The additional financial challenges that adolescent mothers and their families faced during the COVID-19 pandemic were identified as a special impediment to girls' continued education. In Kenya, the development and promulgation of a series of school re-entry policies has not changed the behavior of all key stakeholders or provided the material and emotional support necessary to allow all girls to fully benefit from these policies. These findings may stimulate more innovative interventions and actions promoting school access, retention and completion of adolescent mothers in low- and middle-income countries.

KEYWORDS

adolescent mothers, school principals, school counsellors, parents, school, gender equity, Africa, low-and middle-income countries

1 Introduction

Girls' education is addressed under Sustainable Development Goal 4 (SDG 4), which calls for access to quality education and lifelong learning for all, and SDG 5, which focuses on achieving gender equality and the empowerment of all women and girls (World Bank, 2018a,b; United Nations, 2022). Promoting girls' education is also a prerequisite for the achievement of other SDGs, including but not limited to health (Goal 3), and work and economic growth (Goal 8). The Center for Rights, Education and Awareness (2007) stresses that educating girls is both a fundamental human right and the surest way of making significant progress toward social justice and a more equitable future. Achieving these goals requires global and national commitment to ensure that schools are safe havens for girls and that all forms of structural discrimination are eradicated (World Bank, 2018a,b).

The World Bank and the United Nations, through its Girls' Education advocacy strategies, recognize that education significantly alters the future opportunities available to girls, yields a 10-fold economic benefit, and contributes a triple dividend of social benefits (Patton et al., 2016a,b). Despite recent global policy and service improvements in education and wellbeing, millions of young people are still deprived of their right to education, out of which more than two-thirds are adolescent girls. The World Bank's involvement reflects a clear commitment and support to all states investing on contextspecific policies, programmes and services that support girls' education and wellbeing (Levin-Epstein and Greenberg, 2003; UNESCO, 2015a,b, 2019; UNICEF, 2008, 2022a,b). None the less, in 2013, UNESCO's Global Monitoring Report still indicated that 31 million girls of primary school age and another 34 million adolescent girls of lower secondary school age were not attending school.

Although adolescent pregnancy can disrupt girls' education in every country (Maynard, 1995; Gyan, 2013; Loaiza and Liang, 2013; Rosenberg et al., 2015; Shahidul and Karim, 2015; Sandøy et al., 2016), the consequences are graver in low-income countries (Advocates for Youth, 2012; UNFPA, 2015). It is the leading cause of school dropout among girls in many low- and middle-income countries (Ferguson, 1989; Morara and Chemwei, 2013; Barmao-Kiptanui et al., 2015; Kimemia and Mugambi, 2016). Pregnancy's adverse consequences on girls' education limits attainment of gender equality and women's empowerment (Undie et al., 2015a,b). Adolescent mothers face health and social challenges that have a profound impact on their life opportunities, the wellbeing of their children, and their country's development. Adolescent pregnancy increases the risk of poor health outcomes due to pregnancy and delivery complications, unsafe abortion, and financial strain (Olausson, 2001; Henretta et al., 2008; Falci et al., 2010; Angelini and Mierau, 2018; Grundy et al., 2019; Cruz et al., 2021; Ochieng-Arunda et al., 2022; Sobngwi-Tambekou et al., 2022).

Barriers to adolescent mothers' education diminish their chances of achieving a sustainable income and engaging in meaningful employment in adulthood (Laski, 2015; Middleman and Zimet, 2016). This far-reaching impact is rooted in the stigma

associated with adolescent pregnancy (Envuladu et al., 2014; Dare et al., 2016; Kvinna, 2018; Ayamolowo et al., 2019). Both the UN Global Strategy for Women's, Children's, and Adolescent's Health and international research recognize that failure to invest in programmes that delay motherhood compromises achievement of the SDGs, particularly those targeting poverty, health, security, education, and the reduction of inequalities (Fergussion and Woodward, 2000; Laski, 2015; Middleman and Zimet, 2016; Wachira et al., 2016; Kaphagawani and Kalipeni, 2017; Omoro et al., 2018). This compromises socioeconomic advancement for present and future generations (Maluwa-Banda, 2004; Chege and Sifuna, 2006; Bhana et al., 2010; Wekesa, 2010; Coalition for Evidence-Based Policy, 2013; Albritton et al., 2014; Undie et al., 2015a,b).

International research has identified diverse factors that singly or in combination contribute to teenage pregnancy (McCulloch, 2001; Domenico and Jones, 2007; Langille, 2007; UNFPA, 2013a,b; Mushwana et al., 2015). These factors operate at the individual level (e.g., knowledge, attitudes and beliefs; future expectations; substance use), the intrafamilial level (e.g., family structure; parentchild communication; socioeconomic status), the extrafamilial level (e.g., peer influences; sexual health education at school) and the community level (e.g., norms and values concerning teenage pregnancy; accessibility of health services) (Kirby et al., 2006; Langille, 2007). The relationship between teenage pregnancy and school dropout has arguably been influenced by girls' sociocultural backgrounds, knowledge about sexual and reproductive health issues, and the adequacy of the psychosocial and family support given to pregnant girls and adolescent mothers (Wekesa, 2010; Plan International, 2012; Skider et al., 2014; Karimi, 2015).

Adolescent motherhood and school drop-out show marked geographic and demographic differences (Langille, 2007; UNFPA, 2013a,b). For instance, of the 101 million girls who drop out of school annually due to pregnancy, 88% live in Africa and Asia (UNFPA, 2015, 2018a,b,c; African Institute for Development Policy (AFIDEP), 2020). Sub-Saharan African countries have some of the highest rates of early childbearing and out-of-school children (Aron and Zweig, 2003; Treffers, 2003; Rosenthal et al., 2009; Kaphagawani and Kalipeni, 2017; Human Rights Watch, 2018; Omoro et al., 2018; Yakubu and Salisu, 2018). Pregnancy is the single strongest risk factor for school drop-out by girls in sub-Saharan Africa (UNICEF and UIS, 2016; Britwum et al., 2017; UNESCO, 2017, 2018; Sobngwi-Tambekou et al., 2022). This rate ranges from 5 to 10% in five Francophone West African countries (Lloyd and Mensch, 2008) to rates that are more than one-and-a-half times greater in East Africa: Uganda (14 percent), Tanzania (13.2 percent) (UNFPA, 2017, 2019; Kassa et al., 2018) and Malawi (up to 25 percent) (Martinez and Odhiambo, 2018). In most sub-Saharan African countries, the risk of dropping-out from school is higher among girls enrolled in secondary school than those enrolled in primary school (Eloundou-Enyegue, 2004; Adofo, 2013).

With the recognition that teenage pregnancy is both an individual and national challenge, UNESCO and other international institutions have actively promoted school re-entry policies for pregnant and parenting girls. These are consistent with the commitment African governments have made in the African Agenda 2063. This agreement aspires to close gender

gaps in education and spur significant progress among girls and women in Africa by leveraging partnerships and coordinating key stakeholders. Since 2017, the African Union International Centre for Girls' and Women's Education in Africa (AU/CIEFFA), in line with the *Continental Education Strategy for Africa* (CESA 16-25), has promoted a multi-sectoral approach to the empowerment of girls and women in and through education.

Over the past two decades, many sub-Saharan African countries, including Botswana, Cameroon, Guinea, Kenya, Uganda, Mozambique, Tanzania, Madagascar, Malawi, Namibia, Sierra Leone, South Africa, and Zambia, have instituted policies designed to address pregnancy-related school dropout. These policies grant adolescent mothers the legal right to return to school after giving birth (Chilisa, 2002; Najjuma and Kyarugahe, 2006; Coalition for Evidence-Based Policy, 2013; Mbugua, 2013; Nkosha et al., 2013; Eyster et al., 2014; Uromi, 2014; Mccadden, 2015; Luntha, 2016; STEP-UP, 2016; Ntambo and Malvin, 2017; Nkwemu et al., 2019; Nsalamba and Simpande, 2019; Ruzibiza, 2021; Opondo and Aloka, 2022). A range of support services are also offered (Sadler et al., 2007; World Health Organization (WHO), 2011a,b; Spaulding et al., 2016). For example, in Cameroon, girls can request extra classes to keep up with their studies while they are away from school, while Malawi's policy calls for guaranteed childcare (Eisenberg et al., 2006).

In South Africa and Botswana, the policies are designed to provide logistical and financial support to help adolescent mothers continue attending school (Chilisa, 2002; Egenti and Omoruyi, 2011; Iversen, 2012). Such cases are examples of best practice in re-entry policies. UNESCO has supported the development of guidelines for Ministries of Education on actions that they can implement to prevent adolescent motherhood and ensure parenting adolescents continue their education in a safe and supportive school environment, free from violence, stigma and discrimination (UNESCO, 2015a,b).

However, these policies face implementation challenges (e.g., Chiyota and Marishane, 2020). Members of the wider community often judge re-entry policies and support for parenting adolescents to be inconsistent with social norms (Mbugua, 2013; Population Council, 2015). In many African contexts, both cultural traditions and religious convictions contribute to an ideology of abstinence among young people. Therefore, adolescent pregnancy is socially constructed as a moral problem linked with sexual promiscuity (National Center for Education Statistics, 2001; Bonell, 2004; Marinho, 2006; Breheny and Stephens, 2007; Heilborn et al., 2007; Schumacher P. B., 2013) and worthy of condemnation (Kolling et al., 2017). Premarital sexual relations have been described as an act of 'swimming against the tide of African norms that regulate reproduction' (National Center for Education Statistics, 2001). It is associated with negative outcomes - or punishmentssuch as pregnancy and HIV/AIDS (Finlay et al., 2011; Tarus, 2020; PMNCH, 2022). Adolescent pregnancy is 'a misfortune that goes against our community order, cultural values and ethics' (FAWE/OSISA, 2012). As a consequence of these views, adolescent mothers face disapproval and stigma, and school re-entry policies cause widespread discomfort among stakeholders. Many African communities also frame education as a privilege offered to young people with good behavior rather than as a right that all young people should enjoy (Chilisa, 2002; FAWE/OSISA, 2012; Mbugua, 2013). The persistence of this traditional perspective is a barrier to pregnant and parenting girls continuing their education and makes them vulnerable to early forced marriage (Chilisa, 2002; Mosle and Nisha Patel, 2012). Policies that do not provide punishments for adolescent motherhood and that instead reinforce the right of pregnant girls to continue school, are perceived to perpetuate and encourage immoral behavior (Martinez and Odhiambo, 2018). School re-entry policies allow the moral "contamination" of other students. That is, readmission exposes students to peers who exemplify bad morals and by removing a significant punishment it encourages the vice of premarital sexual relations (Ncube and Mudau, 2017). It is noteworthy that the same attitudes are not directed toward the adolescent boys responsible for pregnancies. Adolescent fathers are likely to remain unidentified, unburdened by childcare responsibilities and stigma, and enjoy uninterrupted schooling.

Kenya provides a useful context in which to study the tension between international and national initiatives to ensure that all girls have the opportunity to receive an education and traditional community attitudes toward pregnant and parenting adolescent girls. The rate of adolescent pregnancy in Kenya is high (Save the Children, 2020). At 18%, it is ranked third worldwide (Kenya National Council for Population and Development, 2020; UNFPA, 2014; World Health Organization (WHO), 2014, World Health Organization, 2022). One in every 5 girls aged 15–19 years, has either had a live birth or is pregnant with her first child. Girls also become pregnant at even younger ages. For example, among girls aged 14–15 years, Kenya recorded 16,957 pregnancies in 2019, 14,374 in 2020, 14,628 in 2021, and 12,509 in 2022.

In Kenya, the COVID-19 lockdown resulted in the prolonged closure of schools, the worsening of economic conditions, and limited access to individual, family, and community resources to support adolescents. Between January and July 2020, Kenya reported a worrying increase in adolescent pregnancy statistics in more than half its counties (Relief web, 2020). The small rural communities in Kakamega County experienced the second highest prevalence in the country, recording 6,686 adolescent pregnancies.

In recognition of the scale of this challenge, the Kenyan government has established an enabling policy environment as well as a range of initiatives designed to reduce the prevalence of adolescent pregnancies, affirm the right to education of pregnant or parenting students, and outlined the kind of support required from various stakeholders to enable all girls to return to school. Kenya's first 'return to school' policy for teenage mothers came into law in 1994, was supplemented by implementation guidelines in 1996, and later revised in 2009 (Achoka and Njeru, 2012; Omwancha, 2012).

The current re-entry policy and guidelines are a prevention and response resource for addressing school dropout, enhancing access, retention, transition, equity, safety and security in education as per The Basic Education Act (2013). The policy seeks to reduce adolescent pregnancy by promoting effective utilization of youth friendly reproductive health services, and sensitization of parents. The policy provides for adolescent mothers to be allowed, after delivery, to return to their former schools or to gain admission into other schools if they feel they will face stigma and discrimination (Birungi et al., 2015). Adolescent mothers and their parents should be counseled to help them cope with their new status (Ministry of Education, 2020). Importantly, the policy also mandates the counseling of adolescent boys who contribute to pregnancy, and allows legal action to be taken against men who

impregnate adolescent girls. In addition, the policy provides redress for children and parents if public schools refuse to allow enrolment, and the prosecution of teachers found harassing schoolgirls (Kato, 2015).

The policy highlights the responsibilities and/or rights of adolescent mothers, their parents/guardians, schools, and government ministries. At the national level, here have been efforts to harmonize the re-entry policy with the National School Health Policy of 2009, the National Adolescent Sexual and Reproductive Health Policy of 2015, and the National Guidelines for Provision of Adolescent- and Youth-Friendly Services in Kenya (2016) (Kato, 2015; Ministry of Education, 2020). The Ministry of Education is responsible for awareness creation, monitoring, tracking progress, following up, building the capacity of school staff, and mobilizing resources for the health and social support of adolescent mothers.

Kenyan schools have been given responsibility for both reducing adolescent pregnancy and supporting pregnant and parenting adolescents to continue their education. Because many of the interventions to reduce adolescent pregnancies (Steinka-Fry et al., 2013; Sidze et al., 2017; Ministry of Education, 2020) focus on reducing girls' "irresponsible" sexual behavior, they convey an implication that the responsibility lies solely with girls. Consequently, many initiatives to reduce adolescent pregnancies reinforce social attitudes that disadvantage girls and women (Goesling et al., 2015a,b; Sidze et al., 2017). Equally, interventions provided by schools are unlikely to influence adolescent pregnancy rates unless there is also, for example, improved access to sexual health services and socio-economic empowerment of vulnerable households. At the school level, teachers are also expected to handle adolescent mothers with confidentiality to avoid stigmatization and to treat them with 'understanding'. However, it is difficult to hold school staff accountable when the policy does not specify what this requires of

The policy expects parents/guardians to offer moral support, ensure that appropriate medical care and resources are provided for the girl and the baby, and to maintain communication with the school on the progress of the girl (Ministry of Education, 2020).

The multisectoral stance in current policies acknowledges that pregnant schoolgirls and adolescent mothers require more than the right to school entry. Other initiatives are needed to support their attendance, retention, and completion. For example, access to reliable child-care is often a major determining factor in young parents' access to and success in school. The current policy assumes that many of the necessary supports will be provided by parents, schools and local communities.

Despite the multi-sectorial and multi-dimensional nature of the Kenyan re-entry policy, in 2018, UNFPA estimated that each year nearly 13,000 girls continued to drop out of school due to pregnancy. Several reasons have been advanced to explain this. High levels of pregnancy persist due to barriers to access contraceptives, low understanding of their reproductive health rights among school-going youth (Nyangaresi et al., 2021), and the prevalence of coercive sexual relationships (Oruko et al., 2015; Jones et al., 2020; Huda et al., 2021a,b). Girls' ability to continue their education is limited by poverty, inequitable school environments and the continued extra-official expulsion

of pregnant students from Kenyan schools (Oruko et al., 2015; Nyangaresi et al., 2021). Moreover, past quantitative (Mbugua, 2013; Wekesa, 2014; Mwenje-Macharia and Kessio, 2015; Undie et al., 2015a,b) and qualitative (Omwancha, 2012) research has shown that the implementation of the re-entry policy has been plagued by low levels of awareness among stakeholders including teachers, school administrators, parents and schoolgirls (Gall et al., 2007; Birungi et al., 2015; Macharia and Kessio, 2015), continuing high levels of stigmatization and social exclusion within the school environment (Omwancha, 2013; Onyango et al., 2015), low parental involvement and support (Sulo et al., 2014; Wekesa, 2014; Karimi, 2015), inadequate resources to implement the policy (Goode, 1960; Mwenje, 2015), and inconsistencies in its implementation (Omwancha, 2013). It also seems clear that effective implementation of this policy requires a change in traditional attitudes toward unmarried girls among many school staff and other stakeholders (Mbugua, 2013; Chiyota and Marishane, 2020).

There is a clear need for systematic research on diverse stakeholders' perceptions about the acceptability, level of implementation, and effectiveness of policies designed to prevent adolescent pregnancies and promote school re-entry for adolescent mothers. Currently, there is also little research on the specific community level actions and interventions stakeholders believe are effective in encouraging adolescent mothers to return to school and supporting their education and well-being after school re-entry. The current research addresses this gap by exploring the views of diverse stakeholders in one of the areas in Kenya with the highest adolescent pregnancy rate.

Research Questions

The aim of this study was to explore the perceptions of five groups of stakeholders who are critical for the successful implementation of school re-entry guidelines. The study sought the insights that adolescent mothers, their parents, school principals, teachers with guidance and counseling responsibilities, and education administrative officers can provide regarding three questions:

- a) What are the needs of adolescent mothers readmitted to
- b) What factors hinder the implementation of school re-entry policies for adolescent mothers?
- c) What community level actions have been adopted to support access, retention and completion of education among adolescent mothers? How effective are these?

2 Methods and procedures

2.1 Research design

The research used a cross-sectional qualitative design to generate rich, detailed data on participants' perspectives and a deep understanding of the phenomenon under study (Flick, 2009). A qualitative design allowed the diversity of participants views, which is often overlooked in quantitative research, to be examined (Patton, 2002)

2.2 Research site

In March 2022, qualitative data was collected in the rural county of Kakamega in western Kenya. Kakamega has reported the highest rates of adolescent motherhood in Kenya in the past 4 years (Nyangaresi et al., 2023). The study focused on two areas within this county, Mumias subcounty and Matungu ward, that have among the highest rates of adolescent motherhood. These areas also have high levels of illiteracy and poverty, and relatively few secondary schools.

2.3 Target population

Purposive sampling ensured that recruitment targeted the participants that best fit the study's objectives (Devers and Frankel, 2000). Three types of schools were chosen: extra county (n = 1), subcounty (n = 2), and ward (n = 2). Five groups of stakeholders were recruited: principals (n = 5) and teachers with guidance and counseling responsibilities from the same schools (n = 5), adolescent mothers who had returned to the 5 schools (n = 10)and their parents/guardians (n = 6), and education administrative officers (n = 6). Respondents were screened based on the following criteria: school principals and guidance and counseling teachers had served in the community for a period of more than 7 years since the policy was revised and became effective; parents/guardians live with an adolescent mother who has been readmitted to school; adolescent mothers were under 18 years of age and were, or had been, pregnant during the course of their education, and had returned to the same school or another.

2.4 Measures and tools

A semi-structured individual interview guide was designed. All respondents were asked to address the same topics to allow comparisons and prevent different interviewers from introducing bias (Bhana and Morell, 2010; Ganchimeg et al., 2014). To encourage participants to think broadly about potential effective interventions, the new national school re-entry policy was not explicitly mentioned. The nine prompt questions focused on participants' lived experiences, beliefs and perspectives concerning interventions that are effective in supporting adolescent mothers to return to school; interventions that are effective in supporting the well-being and adaptation of adolescent mothers after they return to school; and family- and community-level factors that influence the prevalence of adolescent pregnancies and the wellbeing of adolescent mothers. Example prompt questions include, "What are the possible interventions to support adolescent mothers in your school?" and "How does this community ensure adolescent mothers get readmitted and succeed in school?" When necessary, the researchers asked follow-up questions to obtain in-depth data from the respondents.

Administration of interviews was conducted within local community centres (e.g., schools, dispensaries, chief's camps and churches) and at times convenient to the participants. Interviews lasted between 20 and 30 minutes. Interviews were conducted in English or Swahili (Kenya's national language) and transcribed and coded in the language in which they were conducted.

Transcripts in Swahili were later translated into English using back translation.

2.5 Pilot testing

As a prelude to the main research, a pilot study was conducted to refine the methods of gathering information. The pilot interview ensured that questions were acceptable, clear, and relevant to participant groups and helped to estimate the length of interview (Ganchimeg et al., 2014). The pilot study involved principals and teachers with guidance and counseling responsibilities at four schools that were not involved in the main study, and a small number of parents, adolescent mothers, and education administrative officers (n = 2 in each case).

2.6 Analysis plan

Text analysis and coding were conducted manually as suggested by Creswell (2013). The thematic analysis involved organizing data, dividing data into meaning units, developing and applying codes for meaning units, refining and defining codes, identifying patterns of association between codes, and using these associations to form themes (Creswell and Cresswell, 2018). The authors adhered to the six steps in thematic analysis (Brosh et al., 2007). First, reading and re-reading the transcripts helped the researchers familiarize themselves with the data and gain an understanding of the overall picture it conveyed. Second, a thorough reading allowed preliminary codes to be assigned, and then refined. Distinctive or frequently mentioned ideas were highlighted and organized under the three research questions, regardless of where they occurred in the transcripts. Third, relationships between codes were identified and codes were grouped into preliminary themes. Fourth, transcripts were again reviewed to check that the themes captured all relevant data. Fifth, the themes were refined and named. Links between and within themes were examined. Finally, the researchers integrated the themes to construct the narrative which is presented in the findings. The aim was to provide a thick descriptive account of the data that would describe and interpret the participants' perspectives and experiences (Patton, 1990; Flick, 2009) and allow insights into the complexity of the meaning underlying the transcripts (Tracy, 2010).

2.7 Ethical considerations

Participants received information about the research objectives and methods so that they were able to provide informed consent to participate. They were explicitly given the option to withdraw from the interview at any point, were guaranteed confidentiality and anonymity in any report resulting from the study, and asked to provide consent for an audio-recording to be made of their interview. Informed consent was obtained verbally from student mothers prior to participation in the study. In cases in which translation assistance was necessary, participants were also asked to provide consent to allow the presence of interpreter. All audio-recordings and transcripts were de-identified and labeled with a

code known only to the researchers. The research underwent an ethical review process and all approval stages.

3 Study finding

3.1 Characteristics of the sample

The thematic analysis achieved data saturation with a subset of the target sample: 5 principals, 5 guidance and counseling teachers, 10 adolescent mothers, 6 of their parents, and 2 education administrative officers. The school staff were diverse in gender, age, and teaching experience (Gender: 60% male in both groups; Age: Principals: Mean = 37.6, SD = 10.1, Range: 22-49 years; Guidance and counseling teachers: Mean = 34.0, SD = 6.1, Range: 29–42 years; Teaching experience: Principals: Mean = 14 years, SD = 5.4, Range: 7 to 21 years; Guidance and counseling teachers: Mean = 13.0, SD = 3.4, Range: 9–18 years). Most of the adolescent mothers were under 15 years of age (Mean = 13.9 years, SD = 1.7, range = 12 to 17years), were enrolled in upper primary grades (Range: Grades 4 to 8) and were from large families (Mean number of siblings = 6.9, SD = 3.2, Range: 2 to 13). The group consisting of parents and guardians included 4 females and 2 males who differed in age and family size (Females: Mean age = 26.3 years, SD = 3.0, Range = 22-29; Number of children: Mean = 6.3, SD = 4.6; the males were 60 and 72 years of age, with 9 and 14 children, respectively).

3.2 Interventions to encourage adolescent mothers to continue their education

Principals

Principals are responsible for implementing the re-entry policy. Four of the five principals voiced support for the policy. Moreover, several principals took a very active role in ensuring that these policies were implemented. For instance, one principal mentioned that she often traced girls who dropped out of school due to pregnancy and tried to enlist community support for their return to school. She illustrated this by describing her response when a bright Grade 8 student dropped out of school:

"on realizing [name] was missing school due to pregnancy, with the help of the village elder, she is back in school" (Female with 21 years teaching experience).

Another principal with 17 years teaching experience reported that she holds regular meetings with students' parents/guardians to sensitize them to the government's re-entry policy, impress upon parents to support adolescent mothers to complete education, and discusses ways to improve the education of girls more generally. She drew on a Swahili saying to support the rationale for adolescent mothers' re-entry to school: "kuvunjika kwa mwiko sio mwisho wa kupika ugali" which means "the breakage of a cooking stick does not stop the process of cooking while cooking".

Male principals employed various strategies to enforce the reentry policy. One male principal with 14 years teaching experience reiterated that: 'Pregnancy should not hinder a girl from pursuing her education. In this school the expectant adolescents are allowed to remain in school until she delivers her baby and is allowed to return to school after a period of maternity leave."

Surprisingly, it was the youngest principal who objected to, and declined to implement, the government's re-entry policy:

"I can't re-admit pregnant girls back to school because they will be a bad example to other schoolgirls" (Male with 7 years teaching experience).

Thus, this principal judged that adolescent pregnancy was the result of a personal moral failure, that visible examples of moral failure can contaminate the moral integrity of students, and that one of his roles as principal was to protect students' moral integrity, even if this required violating the legal rights of one or more students. The focus on moral failure and on schools' responsibility to inculcate morals, is consistent with earlier findings indicating that schools are more likely to readmit young mothers if they show remorse for their actions (Undie et al., 2015a,b), and that adolescent mothers are excluded because of their 'inability to maintain chastity' (Mwenje, 2015; Onyango et al., 2015). An inevitable consequence of the persistence of such attitudes is that all adolescent mothers' do not have an equal opportunity to continue their schooling. It depends on the views of stakeholders and the support structures available to them.

Principals were also concerned that the re-entry of adolescent mothers would lower the school's academic achievement: In the words of one School Principal (Male with 12 years teaching experience):

'We are doing the most we can to ensure the policy addresses girls plight. However, we all know that parenting and schooling incompatible roles in life. Parenting interferes with regular and timely school attendance, completion of class projects and assignments, and even classroom participation. Obviously parenting leads to girls missing important components of the curriculum. Sometimes we lack time to repeat /coach them due to the nature of their roles as students and parents, as well as many competing demands of teachers. Ultimately this compromises overall achievement. Based on my experiences most girls who struggle with these two demanding roles without adequate support from home don't maintain their grades. This makes many principals reluctant to readmit them once they fall pregnant'.

Guidance and counseling teachers

Teachers with guidance and counseling responsibilities confirmed the important role played by principals and elaborated on some of the answers their principals provided. One female teacher with 11 years' experience indicated that her principal visited adolescent mothers' homes and asked their parents to encourage them to continue to attend until they had completed primary school. However, another with 14 years' experience confirmed that the principal of her school refused to implement the re-entry policy. Her principal paid little attention

to adolescent mothers in school and did not admit any adolescent mother referred from another school. In this context there was little she could do to fulfill her role in supporting adolescent mothers.

Adolescent mothers

Several adolescent mothers testified to the effectiveness of school and community interventions to support their continued education. One said,

"... I can't miss school because my teachers and the village elder will frog march me back to school or arrest my parents" (17-year-old mother in Grade 8)

and that warnings from the principal led to her parents also prohibiting her from staying out of school.

Girls also acknowledged the importance of the Ministry of Education's 100% transition and re-entry policy for teenage mothers.

"Previously pregnant girls were sent out of school... Today we are forgiven and allowed in school" (14- year-old mother in Grade 7).

However, the wording used by this girl shows that she too attributed her early motherhood not to the life circumstances that allowed this, but to a personal moral failing that required forgiveness.

Parents/Guardians

Many parents and guardians supported girls during their pregnancy and re-entry to school. However, concern over other community members' attitudes led some caregivers to take lifechanging actions. One of the older male guardians reported that the school principal had asked him to collect his pregnant granddaughter, who was in Grade 7, and to find a different school for her after she had delivered her child. He did so, but was angry, not with the school principal for violating the girl's legal rights, but with the girl for becoming pregnant. He arranged for her to be married to avoid shame:

"I don't want this idiot [adolescent mother] to bring shame to my family and mosque where am a religious leader".

The above sentiments agree with earlier findings which suggested that adolescent mothers' education is largely at the mercy of their fathers (Karimi, 2015).

3.3 Interventions to support the well-being and adaptation of adolescent mothers after they return to school

Interview responses addressed five topics relevant to supporting the well-being and adaptation of adolescent mothers after they have returned to school: mother-care and childcare services in schools; facilities to support menstrual hygiene; special challenges associated with the COVID-19 pandemic; and the option of special schools for adolescent mothers.

Childcare and mother-care services

Principals, guidance and counseling teachers and adolescent mothers all commented on the importance of childcare facilities that allowed mothers to continue to care for their babies while they were at school. One female principal with 17 years teaching experience indicated that there were childcare services at her school and that adolescent mothers were allowed breaks in which they could feed their babies in designated "breastfeeding corners". Some teachers indicated that such facilities had been located within the school so that adolescent mothers had easy access to guidance and counseling:

"The school administration has provided a breastfeeding room beside my counseling room for adolescent mothers" (Female teacher, 11 years' experience)

She noted that the room was partially equipped with beds, sanitation equipment and other materials to support adolescent mothers. Such "mother-care" influenced girls' attitude toward attending school. For example, one adolescent mother indicated that attending school was more congenial than staying at home:

"In school everyone cares including kitchen staff... [I] am given enough food and treated well" (17-year-old mother in Grade 8).

Girls also valued interventions to ensure that they were accepted by their peers. Several adolescent mothers specifically mentioned their appreciation of the support provided by guidance and counseling teachers. These advocated on their behalf in a way that "makes other learners accept us willingly" (13-year-old mother in Grade 6), met their learning and social needs, and supported them through the difficulties they encountered in school (12-year-old mother in Grade 5). The importance of such mother-care was also reported by parents. One 27-year-old female parent/guardian reported that thanks to the support her child received she was now topping her class academically.

Some schools went to great lengths to support ongoing enrolment by adolescent mothers. One male teacher with 18 years' experience indicated that even if adolescent mothers had not paid their school levies, they were given access to all school services so that they would feel comfortable to continue attending. However, another teacher indicated that in such cases the school needed to identify a well-wisher who would be willing to cover the cost of the levies.

Two education administration officers perceived that adolescent motherhood is a consequence of poverty and shows how the vicious cycle of poverty is manifesting within the wards. One of the had this to say,

"Adolescent pregnancy and motherhood seems to be following same pattern. For instance, in my ward, sexual exploitation and abuse seems to be linked to either economic disadvantage poverty, lack of access and information on sexuality and reproduction, and at times inadequate services, such as family planning and modern contraception... Adolescent pregnancy is rampant in households of single parents, girls living with

grandparents or under foster care, those living with carefree, irresponsible, parents with very little time to monitor their children, and those living in disorganized neighborhoods where 'changaa' [illicit brewing] is rampant.... These are top factors that make girls fall into the trap of sexual exploiters as a result of seeking attention, seeking a companion or support for their basic needs (e.g., sanitary, towels soap, pants etc.) so until these needs are sorted, then we may not win this battle."

Although this administrative officer welcomed the re-entry policy, he believed that multidimensional support was necessary to allow adolescent mothers to complete their schooling: He stated that:

'Pregnancy and adolescent motherhood comes with a range of needs for the girl and her child. Before we talk about school needs and educational supplies (uniform, books, pens etc.) required of parents, there is need for good nutrition, proper health and childcare—all needs that must be met for the girls to be settled in school. Most girls in my ward lack most of these, and at times affect their regular attendance and completion of school".

Menstrual hygiene

Adolescent mothers also appreciated the benefit they gained from initiatives that supported education for all girls. They indicated that the Ministry of Education's menstrual hygiene initiative, which has provided affordable menstrual materials and sanitation and hygiene infrastructure, has removed barriers to education for girls by enhancing their dignity and allowing uninterrupted school attendance.

"Having supportive facilities and services including water, sanitation, and hygiene services, I am comfortable in school" (14-year-old mother in Grade 7).

COVID-19

Adolescent mothers identified two additional challenges that resulted from the COVID-19 pandemic: school closures and loss of their family's source of income. They were grateful for multisectoral county initiatives that addressed some of their needs during the pandemic.

In particular, during the COVID 19 pandemic, there were multi-sectoral county-level supports. For example, in Mumias West, Nassio Trust, a Canadian non-government organization, established peer-to-peer mentoring and psychological support for adolescent mothers. This encouraged them to regularly attend health centers to receive childcare education and to return to school. Philanthropic organizations were also important in addressing financial stress that might otherwise have prevented girls from continuing their education. One adolescent mother reported,

"I feel despair during this corona period. I'm a mother of a baby aged 2 years and doing class 8. Mum lost her job, and she does not get the cash to cater for our needs within this Corona period. Thanks to Upendo Charity and Top Girl organizations that offered their hands in time. Upendo charity provided basic needs while Top Girl pays my school fees".

Alternative and Specialist schools

Some guidance and counseling teachers suggested that the most effective way to protect adolescent mothers from stigma and marginalization in school was to provide them with alternative, specialist schools. However, two parents/guardians (a 60-year-old male and a 27-year-old female) believed that this too would stigmatize their children.

3.4 Community factors affecting adolescent mothers

Participants identified a diverse range of family- and community-level factors that influenced the prevalence of adolescent pregnancies and the well-being of adolescent mothers. Many of these factors also affected other girls (and sometimes can also affect boys).

Preventing adolescent pregnancy

Two factors were perceived to be relevant to decreasing the prevalence of adolescent pregnancies: disincentives for men to engage in sex with under-age girls and open communication about sexuality. Two parents (22- and 26-year-old females) mentioned government initiatives to increase the arrest, prosecution and fining or imprisonment of men responsible for unwanted pregnancies. Both parents and teachers talked about the importance of openly discussing issues concerning sexuality in families and in the wider community. Several parents/guardians indicated that they spoke openly about sexuality with their own children. One parent, who was herself an adolescent mother who dropped out of school in Grade 4, said,

"I speak openly about sex and sexuality to my children. I don't want them to be like me" (29-year-old mother of 5 children).

Another participant (a 27-year-old mother of 2 children) reported that one of her family's routines is that each evening after dinner she sits with her children to talk openly about their academics and sexual matters. A 72-year-old male guardian noted that religious forums now also speak openly on matters concerning sexuality and encourage adolescent mothers to return to school. To further promote such openness, one of the guidance and counseling teachers (a female with 11 years' experience) gives talks to parents during chiefs Barazas [a traditional community assembly], encouraging them to communicate freely with their children, and especially with adolescents.

Female genital cutting

Female genital cutting was identified as a multi-dimensional risk for many girls. One school principal linked the practice to both an extended absence from school and early pregnancy. She indicated that during the season in which female circumcision takes place, girls disappeared from school to celebrate and attend the ceremony but were often pregnant when they returned. She said that prior to this season, religious leaders come to school to warn

students against this retrogressive practice that endangers their lives. Guidance and counseling teachers confirmed,

"when there is a serious conflict between academic programs and cultural practices, sometimes a religious guest is invited to address the issue" (Male with 18 years' experience).

However, he also admitted that some negative cultural practices were beyond their ability to control.

Marriage

Forced early marriage was a risk for all girls, but this risk increased if girls became pregnant. One of the girls reported,

"My father was marrying me off because I was pregnant. I reported to the village elder who rescued me" (16-year-old mother in Grade 5).

Incest

Some of the adolescent mothers became pregnant in circumstances that involved elevated levels of stigma and shame. One of the girls reported,

"During my grandmother's funeral we were all drunk from local brew and only to wake in the morning in the same bed with my widowed grandfather." (14- year-old mother in Grade 7).

This encounter resulted in a second pregnancy by the time she was 16 years old. Although some rituals were performed, she went on to deliver a baby with disabilities.

Multiple determinants

One of the guidance and counseling teachers showed an appreciation by narrating the complex interconnecting factors that needed to be addressed to reduce adolescent pregnancies. He had this to say:

"This problem should be viewed within the socio-economic and socio-cultural environment in which the adolescents operate... Lack of access to educational opportunities, sex education and information regarding contraceptives and widespread poverty predisposes girls to teenage pregnancies... Also a lack of parental guidance on issues of sexuality and sex education, as well as cultural taboos in this ward, like Disco Matanga [dances and night vigil entertainment during burials] and circumcision, are events that give rise to romantic relationships. ...One other factor is [relationships between] teachers and schoolgirls, which, although is not permitted by law, continues to happen in school because of girls' inability to make decisions and defy authority".

4 Discussion

Many governments in low- and middle-income countries are introducing policies to allow adolescent mothers to continue their education. In 2020, Kenya adopted *National School Re-Entry Guidelines*. However, there has been little research on the

implementation of this policy, or on similar policies in other countries. One implementation challenge is that these policies require changes to traditional attitudes toward girls and a change in behavior toward pregnant and parenting students. The aim of this study was to provide insights into the attitudes of five groups of stakeholders who are critical for the successful implementation of the Kenyan re-entry guidelines.

4.1 Implementation of Kenya's school re-entry policy

To determine the extent to which the government's policy aligned with the stakeholders' beliefs, broad questions about effective interventions to support adolescent mothers to return to school and to successfully pursue their education were asked. Despite this, most responses directly related to the *National School Re-Entry Guidelines*. When school staff were implementing the guidelines, these appeared to be embraced by both the adolescent mothers who returned to education and their parents. It was clear that all the girls who returned to school wished to do so. Therefore, the findings suggest that when schools adhere to the guidelines, these were effective in helping many adolescent mothers who wished to continue their education to do so.

However, as had been highlighted in literature (Aspy et al., 2007; Mwenje, 2015; Onyango et al., 2015; Undie et al., 2015a,b), most principals and teachers with counseling responsibilities recognized that effective implementation of the new guidelines would require attitude changes both inside the school and in the wider community, and many invested significant efforts in fostering these changes. Importantly, participants recognized the support beyond the school was necessary for the successful implementation of the policy. In addition to the right to education, health, dignity and gender equality were identified to be at the heart of this issue. Being pregnant and having a child are major life events. For an adolescent girl pregnancy often results in harsh social sanctions, difficult choices, and life-long consequences. It could mean expulsion from home; being shamed and stigmatized by family, community members and peers; increased vulnerability to violence and abuse; and economic hardship.

The cost of failing to achieve attitude change was also revealed in the data. One of the school principals admitted to actively resisting the re-entry policy, and one of the guardians admitted to using forced early marriage to limit the stigma he perceived would result from an unmarried adolescent girl becoming pregnant. Therefore, greater sensitization of school staff and members of the wider community to girls' human rights, and to the importance of girls' education for their life opportunities and for national development appears to be needed before the goals of the policy can be fully realized.

4.2 Supporting the wellbeing of pregnant students and adolescent mothers who return to school

This research also sought stakeholders' beliefs about interventions that would be effective in supporting the

wellbeing and academic progress of adolescent mothers after they returned to school. Responses identified both material and social forms of support. School staff focused on the provision of material resources, such as mother-care and childcare services in schools (e.g., breastfeeding corners) and social support (e.g., counseling and actions to reduce stigma among other students) that were specific to the needs of adolescent mothers who return to school. South African research has also found that integrating school-based childcare within re-entry and continuation policies helps adolescent mothers to continue their education (Chandra-Mouli et al., 2013). Although adolescent mothers indicated that motherhood-specific support was effective, they also identified the significance of resources that were helpful for all girls, especially facilities to support menstrual hygiene.

Although none of the participants generated ideas for alternative interventions that would be more effective, they believed that financial support was necessary to achieve the goals of the re-entry policy. Both adolescent mothers and school staff identified the cost of school levies and basic needs as barriers to adolescent mothers' continued education. Although this problem appears to have been particularly pronounced in the context of lost livelihoods during the COVID-19 pandemic, previous research shows that poverty increases the risk of school drop-out among both male and female students During the pandemic, adolescent mothers in Mumias Sub-County relied on financial support from charitable organizations and individual well-wishers. It seems unlikely that such support is consistent and accessible for all adolescent mothers in all communities in Kenva.

Previous research has also identified the importance of adequate financial support to allow a return to schooling (Braun and Clarke, 2012). In South Africa, a law that prohibits schools from dismissing pregnant adolescents also provides unconditional cash transfers to assist young mothers and pregnant adolescent girls. Adolescent mothers who received unconditional cash transfers were as likely to have graduated from high school by age 22 as girls who had never been pregnant (Chandra-Mouli et al., 2013).

None of the adolescent mothers believed that provision of special schools for adolescent mothers is a potentially effective intervention. Both school staff and parents held diverse attitudes about such schools.

4.3 Interventions to prevent or delay adolescent pregnancy

Some reports have advocated for comprehensive sexual education programs and access to counseling services and contraceptive methods as effective interventions to prevent unplanned early pregnancies. Several parents and members of school staff expressed positive attitudes toward sexual education at school, in families and in the wider community. However, research suggests that the effectiveness of these programs may be dependent upon specific features of the program and the context. For example, comprehensive sexual education was effective in reducing the prevalence of early and unintended pregnancy in low- and middle- income countries including Nigeria and

Mexico, and in high income countries in Europe and in the USA (Oringanje et al., 2009; Center for the Study of Social Policy, 2015; Omoro et al., 2018). However, reviews of international research have led to the conclusion that many comprehensive sexuality programmes are ineffective, and in rare cases are associated with an increase in the prevalence of early pregnancy (Kirby, 2007; Key et al., 2008; Oringanje et al., 2009; Kenya National Bureau of Statistics, 2015; Gay et al., 2016; Omoro et al., 2018), or a reduced age of sexual debut (Hossain et al., 2019). Two factors that appear to be important are the intensity and content of the program and the qualifications of the presenters. For example, adolescents in the USA who received sex education at least once a week, including a component of counseling by trained professionals, were 40 percent less likely to have an early unplanned pregnancy and 30 per cent more likely to have graduated from high school (DeVore and Ginsburg, 2005).

Similarly, the outcome from open communication about sexuality between parents and their adolescent children shows inconsistencies. For example, one study found that when parents in the USA talked to their children about sex and contraception their children were less likely to report having had sexual intercourse; and those who were engaging in sexual activity reported fewer sexual partners and greater use of contraception during their last sexual encounter (Kirby et al., 2005; Kohler et al., 2008: Lee-Rife et al., 2012; Eyster et al., 2014; Bajracharya et al., 2019). Communication style appears to account for some of the differences in findings. For example, adolescents in the USA whose parents' communication style was friendly, attentive, open, and receptive were less likely to engage in risky sexual behavior that could lead to pregnancy than those whose parents used more contentious and dramatic styles of communication (Eyster et al., 2014). In addition, UNESCO has noted that a strong body of evidence indicates that girls' participation in formal education is itself an important factor in delaying marriage and childbearing.

4.4 Limitations

The findings of this study should be interpreted with an understanding of its limitations. First, although it provides insights into the views of five key groups of stakeholders, it excluded other stakeholders whose views may be important for the effective implementation of school re-entry policies: adolescent mothers who have not returned to school; parents of other students attending the girls' schools; other students; and the girls' classroom teachers. Additionally, the study used a qualitative research design to explore subjective experiences and personal opinions. This approach allows conclusions to be drawn about the acceptability of government policies and school practices among the participants. However, data from a small nonrepresentative sample of stakeholders does not allow conclusions to be drawn about the effectiveness of the government's new school re-entry policy or the supports provided by schools. No evidence was collected about whether the policy is reducing the prevalence of unplanned adolescent pregnancies or increasing the rate with which adolescent mothers complete a basic education.

Third, the findings relate to a specific region in Kenya. The generalizability of the findings to other regions of Kenya that differ in faith and traditions and exposure to modernity, and to the other low- and middle-income countries in which adolescent motherhood is a concern, can only be determined through additional research.

4.5 Recommendations

Although most young mothers in our study had never been married, they all lived in households with other family members (such as parents, grandparents, and siblings). The current findings show that families are an important source of financial and emotional support, and many are relied on to provide the childcare necessary for mothers to continue their education. Given these dynamics, one potentially useful direction for policy development is to take a family-centred approach when assisting adolescent mothers. This may involve a wider engagement with family members than a focus on parents. However, it will be important to supplement support from families. Family members are unlikely to have expertise concerning the challenges adolescent mothers face in navigating educational institutions or the labor market, or in effective ways of exercising the legal rights granted to adolescent mothers.

Participants believed that schools need to be aware of underlying risk factors that cause adolescent mothers to drop out of school after childbirth. With this understanding, appropriate steps can be taken to ensure the necessary level of support and services without compromising the interests of adolescent mothers. For example, schools could play a pivotal role in effectively coordinating support from providers of education, social protection, and health to enhance the health of the girl and her baby, her financial situation, and the level of family support she receives, and options for childcare. Within schools there should be a clear referral pathway to school administrators and counselors to enable adolescent mothers to understand the processes, roles, and responsibilities of schools as well as the support services they are eligible to access. Mentoring may be one effective means of providing this guidance. In the current study, adolescent mothers who received mentoring during the COVID-19 pandemic perceived this to be valuable.

4.6 Conclusion

Across human history adolescent girls have become pregnant. In the past, and today, many of these girls provide exemplary care for their children. However, in world in which education is a key to economic opportunities and full participation in civic life, adolescent pregnancies narrow girls' life opportunities unless policies and practices support them to continue their education. The current research showed that, in the Kenyan context, the development and promulgation of a series of school re-entry policies was insufficient to change the behavior of all key stakeholders or to provide the material and emotional support

necessary to allow all girls to fully benefit from these policies. These findings may inform the implementation strategies for other interventions that aim to promote school access, retention, and completion by adolescent mothers in contexts in which these require a change in the attitudes of multiple stakeholders.

Data availability statement

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

Ethics statement

This study of human participants were reviewed and approved by the Masinde Muliro University of Science and Technology - Social Sciences Research Ethics Committee. Participants provided their written informed consent to participate in this study, and for the publication of any potentially identifiable images or data included in this article. Written informed consent to participate in this study was provided by the participants' legal guardian/next of kin.

Author contributions

RO organized the database and wrote the first draft of the manuscript. NE wrote sections of the manuscript. Both authors contributed to conception and design of the study, manuscript revision, read, and approved the submitted version.

Acknowledgments

We would like to thank all the participants and especially the principals of schools in Mumias Sub-County, Kenya. Without their support, this study would not have been possible.

Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Publisher's note

All claims expressed in this article are solely those of the authors and do not necessarily represent those of their affiliated organizations, or those of the publisher, the editors and the reviewers. Any product that may be evaluated in this article, or claim that may be made by its manufacturer, is not guaranteed or endorsed by the publisher.

References

Achoka, J. S., and Njeru, F. M. (2012). De-stigmatizing teenage motherhood: towards achievement of universal basic education in Kenya. *J. Emerging Trends Educ. Res. Policy Stud.* 3:6. doi: 10.10520/EJC132378

Adofo, S. (2013). Challenges and Coping Strategies of Student Nursing Mothers in Tertiary Institutions in the Greater Accra Region of Ghana. Unpublished Thesis. Legon: University of Ghana.

Advocates for Youth (2012). Science and Success: Sex Education and Other Programs that Work to Prevent Teen Pregnancy, HIV and STIs. Washington, DC: Advocates for Youth

African Institute for Development Policy (AFIDEP) (2020). Sex for Sanitary Pads': How Kenya's Lockdown Led to a Rise in Teenage Pregnancy. Nairobi: The Guradian

Albritton, T., Angley, M., Grandelski, V., Hansen, N., and Kershaw, T. (2014). Looking for solutions: gender differences in relationship and parenting challenges among low-income young parents. *Family Process* 53, 686–701. doi: 10.1111/famp. 12088

Angelini, V., and Mierau, J. (2018). Late-life health effects of teenage motherhood. Demographic Res. 39, 1081–1104. doi: 10.4054/DemRes.2018.39.41

Aron, L. Y., and Zweig, J. M. (2003). Educational Alternatives for Vulnerable Youth: Student Needs, Program Types, and Research Directions. Washington, DC: Urban Institute.

Aspy, C. B., Vesely, S. K., Oman, R. F., Rodine, S., Marshall, L., and McLeroy, K. (2007). Parental communication and youth sexual behaviour. *J. Adolesc.* 30, 449–466. doi: 10.1016/j.adolescence.2006.04.007

Ayamolowo, S., Olajubu, A., and Akintola, F. (2019). Perceived social support and depression among pregnant and child-rearing teenagers in Ile-Ife, Southwest Nigeria. *Afr. J. Midwifery Womens Health* 13, 1–9. doi: 10.18332/ejm/134181

Bajracharya, S., Bam, P., and Bajracharya, P. (2019). Effectiveness of structured teaching program on menstrual hygiene among adolescent school girls. *J. Lumbini Med. College* 8, 48–54.

Barmao-Kiptanui, C., Kindiki, J. N., and Lelan, J. K. (2015). Impact of teenage motherhood on the academic performance in public primary schools in Bungoma County, Kenya. *Int. J. Educ. Adm. Policy Stud.* 7, 61–71.

Bhana, D., and Morell, R. (2010). South African teenage mothers in schools. *Cult. Health Sexual.* 8, 871–873. doi: 10.4314/ahs.v12i4.5

Bhana, D., Morrell, R., Shefer, T., and Ngabaza, S. (2010). South African teachers' responses to teenage pregnancy and teenage mothers in schools. *Cult. Health Sex.* 12, 871–883. doi: 10.1080/13691058.2010. 500398

Birungi, H., Undie, C., MacKenzie, I., Ktahoire, A., Obare, F., and Machawira, P. (2015). Education-sector Response to Early and Unintended Pregnancy: a Review of Country Experiences in Sub-Saharan Africa. STEP UP and UNESCO Research Report. Nairobi: Population Council.

Bonell, C. (2004). Why is teenage pregnancy conceptualized as a social problem? a review of quantitative research from the USA and UK. *Cult. Health Sex.* 6, 255–272. doi: 10.1080/13691050310001643025

Braun, V., and Clarke, V. (2012). "Thematic analysis," in *The Handbook of Research Methods in Psychology*, eds H. Cooper, P. M. Camic, D. L. Long, A. T. Panter, D. Rindskopf, and K. J. Sher (Washington, DC: American Psychological Association), 57, 71

Breheny, M., and Stephens, C. (2007). Irreconcilable differences: health professionals' constructions of adolescence and motherhood. *Soc. Sci. Med.* 64, 112–124. doi: 10.1016/j.socscimed.2006.08.026

Britwum, A. O., Akorsu, A. D., Agbesinyale, P. K., and Aikins, K. S. (2017). Case Study On Girls Who Have Dropped Out of School Due To Pregnancy And Factors Facilitating And/or Preventing Their Re-Entry Into School After Delivery. Ghana: University of Cape Coast.

Brosh, J., Weigel, D., and Evans, W. (2007). Pregnant and parenting adolescents' perception of sources and supports in relation to educational goals. *Child Adolesc. Soc. Work J.* 24, 565–578. doi: 10.1624/105812405X44691

Center for Rights, Education and Awareness (2007). Exploring sexuality: A journey towards embracing sexual rights. Youth Perspective. Series 1. Nairobi: University of Nairobi, Faculty of Law, 42.

Center for the Study of Social Policy (2015). Strengthening Supports for Young Parents and their Children: a Focus on Low-Income Rural and Suburban Families. Washington, DC: Center for the Study of Social Policy.

Chandra-Mouli, V., Camacho, A. V., and Michaud, P. A. (2013). WHO guidelines on preventing early pregnancy and poor reproductive outcomes among adolescents in developing countries. *J. Adolesc. Health* 52, 517–522. doi: 10.1016/j.jadohealth.2013. 03.002

Chege, F., and Sifuna, D. N. (2006). Girls' and women's education in Kenya. Gender Perspect. Trends 91, 86–90.

Chilisa, B. (2002). 'National Policies on pregnancy in education systems in sub Saharan Africa: the case of botswana'. *Gender Educ.* 14, 21–35. doi: 10.1080/09540250120098852

Chiyota, N., and Marishane, R. N. (2020). "Re-entry policy implementation challenges and support systems for teenage mothers in Zambian secondary schools," in *The Education Systems of Africa, Global Education Systems*, ed. K. S. Adeyemo (Cham: Springer), 1–14.

Coalition for Evidence-Based Policy (2013). Randomized controlled trials commissioned by the Institute of Education Sciences since 2002: How many found positive versus weak or no effects. Available online at: http://coalition4evidence.org/wp-content/uploads/2013/06/IES-Commissioned-RCTs-positive-vs-weak-or-null-findings-7-2013.pdf

Creswell, J. W. (2013). Research Design: Qualitative, Quantitative, and Mixed Methods Approaches, 4th Edn. London: SAGE.

Creswell, W. C., and Cresswell, D. J. (2018). Research design qualitative, quantitative and mixed methods approaches, 5th Edn. Thousand Oaks, CA: Sage publications, Inc.

Cruz, E., Cozman, F. G., Souza, W., and Takiuti, A. (2021). The impact of teenage pregnancy on school dropout in Brazil: a Bayesian network approach. *BMC Public Health* 21:1850. doi: 10.1186/s12889-021-11878-3

Dare, A., Omolade, D., Samuel, A. E., Folashade, W., and Adaku, O. (2016). Psychosocial effects of pregnancy on teenage mothers in Angwan Rukuba community, Jos, Plateau State, Nigeria. *Afr. J. Midwifery Women Health* 10, 72–77. doi: 10.3390/ijerph20010605

Devers, K., and Frankel, R. M. (2000). Study design in qualitative research sampling and data collection strategies. *Educ. Health* 13, 263–271. doi: 10.1080/13576280050074543

DeVore, E. R., and Ginsburg, K. R. (2005). The protective effects of good parenting on adolescents. *Curr. Opin. Pediatrics* 17, 460–465. doi: 10.1097/01.mop.0000170514. 27649.c9

Domenico, D. M., and Jones, K. H. (2007). Adolescent pregnancy in America: causes and responses. *J. Vocat. Special Needs Educ.* 30, 4–12. doi: 10.7759/cureus. 25921

Egenti, M. N., and Omoruyi, F. E. O. (2011). Challenges of women participation in continuing higher education programme: implications for adult women counselling and education. *Edo J. Counselling* 4, 131–143.

Eisenberg, N., Spinrad, T. L., and Sadovsky, A. (2006). "Empathy-related responding in children," in *Handbook of Moral Development*, eds M. Killen and J. G. Smetana (Mahwah, MJ: Lawrence Erlbaum Associates Publishers), 517–549. doi: 10.1111/j. 1751-2409.2010.01020.x

Eloundou-Enyegue, P. M. (2004). Pregnancy-related dropouts and gender inequality in education: a life-table approach and application to Cameroon. *Demography* 41, 509–528. doi: 10.1353/dem.2004.0021

Envuladu, E., Agbo, H., Ohize, V., and Zoakah, A. (2014). Determinants and outcome of teenage pregnancy in a rural community in Jos, Plateau State, Nigeria. *Sub-Saharan Afr. J. Med.* 1, 48–52. doi: 10.1186/s12978-023-01629-5

Eyster, L., Callan, T., and Adams, G. (2014). *Balancing School, Work, and Family:* Low-Income Parents' Participation in Education and Training. Washington DC: Urban Institute.

Falci, C., Mortimer, J., and Noel, H. (2010). Parental timing and depressive symptoms in early adulthood. *Adv. Life Course Res.* 15, 1–10. doi: 10.1016/j.alcr.2010. 05.001

FAWE/OSISA (2012). Final Narrative Report. Joint project on analysis study of re-entry policy in 6 countries in Southern Africa. Nairobi: FAWE.

Ferguson, G. A. (1989). Statistical analysis in psychology and education, 6th Edn. New York, NY: McGraw-Hill.

Fergussion, A. G., and Woodward, L. J. C. (2000). Teenage pregnancy and female educational under achievement: a prospective study of a New Zealand birth cohort. *J. Marriage Fam.* 62, 147–161. doi: 10.4314/ahs.v22i2.52

Finlay, J. E., Özaltin, E., and Canning, D. (2011). The association of maternal age with infant mortality, child anthropometric failure, diarrhoea and anaemia for first births: evidence from 55 low- and middle-income countries. *BMJ Open* 1:e000226. doi: 10.1136/bmjopen-2011-000226

Flick, U. (2009). *Introduction to Qualitative Research*, 4th Edn. Thousand Oaks, CA: Sage Publication.

Gall, M., Gall, J., and Borg, R. (2007). Educational Research: an Introduction, 8th Edn. New York, NY: Pearson Education.

Ganchimeg, T., Ota, E., Morisaki, N., Laopaiboon, M., Lumbiganon, P., Zhang, J., et al. (2014). Pregnancy and childbirth outcomes among adolescent mothers: A World Health Organization multicountry study. *BJOG* 121(Suppl. 1), 40–48.

- Gay, J., Croce-Galis, M., and Hardee, K. (2016). What Works for Women and Girls: Evidence for HIV/AIDS Intervention. Washington, DC: Population Council.
- Goesling, B., Colman, S., Trenholm, C., Terzian, M., and Moore, K. (2015a). Programs to reduce teen pregnancy, sexually transmitted infections, and associated sexual risk behaviors: a systematic review. *J. Adolesc. Health* 54, 499–507. doi: 10.1016/j.jadohealth.2013.12.004
- Goesling, B., Lugo-Gil, J., Lee, J., and Novak, T. (2015b). *Updated Findings from the HHS Teen Pregnancy Prevention Evidence Review: April 2013 Through July 2014*. Princeton, NJ: Mathematica Policy Research.
- Goode, W. (1960). Theory of role strain. Am. Sociol. Rev. 25, 483–496. doi: 10.2307/2092933
- Grundy, E., Read, S., and Vaisanan, H. (2019). Fertility trajectories and later-life depression among parents in England. *Population Stud.* 74, 219–240. doi: 10.1080/00324728.2019.1649450
- Gyan, C. (2013). The effects of teenage pregnancy on the educational attainment of girls at Chorkor, a suburb of Accra. *J. Educ. Soc. Sci.* 3, 53–60.
- Heilborn, M. L., Brandao, E., and Cabral, C. (2007). Teenage pregnancy and moral panic in Brazil. *Cult. Health Sex.* 9, 403-414. doi: 10.1080/1369105070136 9441
- Henretta, J. C., Grundy, E. M. D., Okell, L. C., and Wadsworth, M. E. J. (2008). Early motherhood and mental health in midlife: a study of British and American cohorts. *Aging Mental Health* 12, 605–614. doi: 10.1080/13607860802343084
- Hossain, M., Niaz Asadullah, M., and Kambhampati, U. (2019). Empowerment and life satisfaction: evidence from Bangladesh. *World Dev.* 122, 170–183. doi: 10.1016/j. worlddev.2019.05.013
- Huda, M. M., O'Flaherty, M., Finlay, J. E., and Al Mamun, A. (2021a). Time trends and sociodemographic inequalities in the prevalence of adolescent motherhood in 74 low-income and middle-income countries: a population-based study. *Lancet Child Adolesc. Health* 5, 26–36. doi: 10.1016/s2352-4642(20)30311-4
- Huda, M., O'Flaherty, M., Finlay, J., Edmed, S., and Mamun, A. A. (2021b). Partner's characteristics and adolescent motherhood among married adolescent girls in 48 lowincome and middle-income countries: a populationbased study. *BMJ Open* 12:e055021. doi: 10.1136/bmjopen-2021-055021
- Human Rights Watch (2018). Leave No Girl Behind in Africa: Discrimination in Education Against Pregnant Girls and Adolescent Mothers (ISBN: 978-1-6231-36178). New York, NY: Human Rights Watch.
- Iversen, E. (2012). Because I am a girl: Progress and obstacles to girls' education in Africa. Africa Report 2012. Plan West Africa Regional Office for Eastern and Southern Africa (RESA). Available Online at: https://plan-international.org/uploads/2022/01/progress-obstacles-to-girls-education-in-africa.pdf
- Jones, C., Skinner, T., Gangoli, G., Smith, O., and Fenton, R. (2020). *Gender-based Violence Among UK University Students and Staff: a Socio-Ecological Framework*. Durham: Durham University.
- Kaphagawani, N. C., and Kalipeni, E. (2017). Sociocultural factors contributing to teenage pregnancy in Zomba district, Malawi. *Glob. Public Health* 12, 694–710. doi: 10.1080/17441692.2016.1229354
- Karimi, E. W. (2015). Challenges Experienced by Young Mother Learners Upon re-Entry to Formal Primary School. a Case of One of the Divisions of Coastal Regions, Kenya. Unpublished Master"s Thesis. Oslo: University of Oslo.
- Kassa, G. M., Arowojolu, A., Odukogbe, A., and Yalew, A. W. (2018). Prevalence and determinants of adolescent pregnancy in Africa: a systematic review and meta-analysis. *Reprod. Health* 15:195. doi: 10.1186/s12978-018-0640-2
- Kato, D. K. (2015). Influence of Teenage Pregnancy on Completion Rates Among Girls in Public Day Secondary Schools in Kimilili Sub-county. Unpublished Thesis. Nairobi: University of Nairobi.
- Kenya National Bureau of Statistics (2015). Kenya Health and Demographic Survey. Nairobi: KNBS.
- Kenya National Council for Population and Development (2020). Teenage pregnancy in Kenya–a systematic review. *J. Adolesc. Health* 54, 499–507. doi: 10.1007/s40609-017-0102-8
- Key, J. D., Gebregziabher, M. G., Marsh, L. D., and O'Rourke, K. M. (2008). Effectiveness of an intensive, school-based intervention for teen mothers. *J. Adolesc. Health* 42, 394–400. doi: 10.1016/j.jadohealth.2007.09.027
- Kimemia, K. A., and Mugambi, M. M. (2016). Social media and teenage pregnancy among students in secondary schools in Imenti North Sub-County, Meru, County Kenya. . *Int. J. Sci. Res. Manage.* 4, 4586–4606. doi: 10.18535/ijsrm/v4i918
- Kirby, D. (2007). Emerging Answers 2007: Research Findings on Programs to Reduce Teen Pregnancy and Sexually Transmitted Diseases. Washington, DC: The National Campaign to Prevent Teen and Unplanned Pregnancy.
- Kirby, D., Laris, B. A., and Rolleri, L. (2006). Impact of sex and HIV education programs on sexual behaviors of youth in developing and developed countries. *J. Adolesc. Health* 40, 206–217. doi: 10.1016/j.jadohealth.2006.11.143

- Kirby, D., Lepore, G., and Ryan, J. (2005). Executive Summary: Sexual Risk and Protective Factors. Factors Affecting Teen Sexual Behavior, Pregnancy, Childbearing And Sexually Transmitted Disease. Washington, DC: The National Campaign to Prevent Teen Pregnancy.
- Kohler, P. K., Manhart, L. E., and Lafferty, W. E. (2008). Abstinence-only and comprehensive sex education and the initiation of sexual activity and teen pregnancy. *J. Adolesc. Health* 42, 344–351. doi: 10.1016/j.jadohealth.2007.08.026
- Kolling, M., Rasmussen, T. S., and Oxlund, B. (2017). Of "bad behaviour" and "dangerous sex": moral responses to the threat of HIV/AIDS among children and youth in rural Burundi. *Public Health* 5, 122–130. doi: 10.15406/mojph.2017.05.00136
- Kvinna (2018). Rapid Assessment Baseline on the Status and Needs of Teen Mothers in Rwamagana and Burera Districts. Kigali: Kvinna till Kvinna Foundation.
- Langille, D. B. (2007). Teenage pregnancy: trends, contributing factors and the physician's role. Can. Med. Assoc. J. 176, 1601–1602. doi: 10.1503/cmaj.070352
- Laski, L. (2015). Realising the health and wellbeing of adolescents. BMJ 351:h4119. doi: 10.1136/bmj.h4119
- Lee-Rife, S., Malhotra, A., Warner, A., and Glinski, A. M. (2012). What works to prevent child marriage: a review of the evidence. *Stud. Fam. Plann.* 43, 287–303. doi: 10.1111/j.1728-4465.2012.00327.x
- Levin-Epstein, J., and Greenberg, M. H. (2003). Leave no Youth Behind: Opportunities for Congress to Reach Disconnected Youth. Washington, DC: CLASP.
- Lloyd, C. B., and Mensch, B. S. (2008). Marriage and childbirth as factors in dropping out from school: an analysis of DHS data from sub-Saharan Africa. *Popul. Stud.* 62, 1–13. doi: 10.1080/00324720701810840
- Loaiza, E., and Liang, M. (2013). Adolescent Pregnancy: a Review of the Evidence. New York, NY: UNFPA.
- Luntha, C. (2016). The Effectiveness of the Re-Entry Policy in Government Schools: a case of selected Schools in Itezhi-Tezhi District of Zambia. MA Dissertation. Lusaka: University of Zambia and Open University.
- Macharia, J. W. M., and Kessio, D. K. (2015). Investigation of re-entry of student mothers in secondary schools in Kenya. *Int. J. Humanities Soc. Sci. Educ.* 2, 46–50.
- Maluwa-Banda, D. (2004). Gender sensitive educational policy and practice: the case of Malawi. Prospects~34,71-84.
- Marinho, L. (2006). Entrada na sexualidade e prdticas contraceptivas: A experiencia de jovens em tres capitals brasileiras. Ph.D. dissertation. Buenos Aires: University of Salvador.
- Martinez, E., and Odhiambo, A. (2018). Leave No Girl Behind in Africa: Discrimination in Education Against Pregnant Girls and Adolescent Mothers. New York, NY: Human Rights Watch.
- Maynard, R. (1995). Teenage childbearing and welfare reform: lessons from a decade of demonstration and evaluation research. *Children Youth Serv. Rev.* 17, 309–332. doi: 10.1016/0190-7409(95)00013-3
- Mbugua, N. W. (2013). Stakeholders' Roles in Implementing the Redamission Policy on Adolescent Mothers in Public Secondary Schools in Kikuyu District Kiambu County Kenya. Unpublished Dissertation. Nairobi: Catholic University of East Africa.
- Mccadden, D. T. (2015). An assessment of the impact of the Zambia's school reentry policy on female educational attainment and adolescent fertility. Washington, DC: Georgetown University.
- McCulloch, A. (2001). Teenage childbearing in great britain and the spatial concentration of poverty 'households. *J. Epidemiol. Community Health* 55, 16–23. doi: 10.1136/jech.55.1.16
- Middleman, A. B., and Zimet, G. D. (2016). Confronting the epidemiology, burden, treatment, and prevention of meningococcal disease. *J. Adolesc. Health* 59(Suppl. 2), S1–S2. doi: 10.1016/j.jadohealth.2016.06.002
- Ministry of Education (2020). *National Guidelines for Reentry in Early Learning and Basic Education*. Nairobi: Ministry of Education.
- Morara, A., and Chemwei, B. (2013). 'Drop out among pupils in rural primary schools in Kenya: the case of Nandi North district, Kenya'. *J. Educ. Pract.* 4. doi: 10.1111/ped.14866
- Mosle, A., and Nisha Patel, N. (2012). Two Generations, one Future: Moving Parents and Children Beyond Poverty Together. Washington, DC: Aspen Institute.
- Mushwana, L., Monareng, L., Ritcher, S., and Muller, H. (2015). Factors affecting the adolescent pregnancy rate in the Greater Giyani Municipality, Limpopo Province South Africa. *Int. J. Africa Nursing Sci.* 2, 10–18.
- Mwenje, J. W. (2015). Implementation of Re-Entry Policy for Adolescent Mothers in Public Secondary Schools: A Case of Nakuru County, Kenya. Kenyatta University.
- Mwenje-Macharia, J. W., and Kessio, D. K. (2015). Investigation of re-entry of student mothers in secondary schools in Kenya. *Int. J. Humanities Soc. Sci. Educ.* 2, 46–50.
- Mwesigwa, A. C. (2015). Uganda's Sccess in Universal Primary Education Falling Apart. Kampala: The Guardian.

Najjuma, S. M., and Kyarugahe, D. T. (2006). Studying and parenting: experiences of student mothers in Ugandan universities. *Monogr. Ser. Mtafiti Mwafrika* 17, 1–22. doi: 10.1186/s12879-016-1466-6

National Center for Education Statistics (2001). Status dropout rates. Condition of education. U.S. Department of Education, Institute of Education Sciences. Available online at: https://nces.ed.gov/programs/coe/indicator/coj (accessed July 6, 2022).

Ncube, D., and Mudau, T. J. (2017). 'Legalizing the illegal' Interrogating the policy that allows pregnant schoolgirls to go for maternity leave and come back to school. a case of selected schools in Gwanda District. *Glob. J. Adv. Res.* 4, 67–68.

Nkosha, C., Luchembe, M., and Chakufyali, P. N. (2013). Girl-child education campaigns and enrolment/retention in Zambian basic schools: impact analysis. *J. Int. Cooperation Educ.* 15, 113–133.

Nkwemu, S., Jacob, C. N., Mweemba, O., Sharma, A., and Zulu, M. (2019). They say that I have lost my integrity by breaking my virginity: experiences of teen school going mothers in two schools in Zambia. *BMC Public Health* 19:62. doi: 10.1186/s12889-0196394-0

Nsalamba, G., and Simpande, A. (2019). Effect of re-entry policy implementation on readmitted girls' academic performance in mathematics in selected secondary schools of Mufulira District in Zambia. *Int. J. Data Sci. Analy.* 5, 73–85.

Ntambo, A., and Malvin, K. (2017). The impact of re-entry policy on girls who fall pregnant and re-admitted back to school in selected schools in Mpongwe, district, Mozambique district. *J. Multidisciplinary Res. Dev.* 4, 66–80.

Nyangaresi, J., Ijendi, J., and Majanga, E. (2021). Causes of teenage pregnancy in kakamega central sub county, Kenya. *IOSR J. Humanities Soc. Sci.* 26, 25–29.

Nyangaresi, P. O., Rathnayake, T., and Beck, S. E. (2023). Evaluation of disinfection efficacy of single UV-C, and UV-A followed by UV-C LED irradiation on *Escherichia coli*, B. spizizenii, and MS2 bacteriophage, in water. *Sci. Total Environ.* 859(Pt 1):160256. doi: 10.1016/j.scitotenv.2022.160256

Ochieng-Arunda, M., Agardh, A., Larsson, M., and Asamoah, B. O. (2022). Survival patterns of neonates born to adolescent mothers and the effect of pregnancy intentions and marital status on newborn survival in Kenya, Uganda, and Tanzania, 2014–2016. *Glob. Health Action* 15:2101731. doi: 10.1080/16549716.2022.21

Olausson, P. O. (2001). Teenage childbearing and long-term socioeconomic consequences: a case study in Sweden. Fam. Plann. Perspect. 33, 70–74.

Omoro, T., Gray, S. C., Otieno, G., Mbeda, C., Phillips-Howard, P. A., Hayes, T., et al. (2018). Teen pregnancy in rural Western Kenya: a public health issue. *Int. J. Adolesc. Youth* 23, 399–408. doi: 10.1080/02673843.2017.1402794

Omwancha, K. M. (2012). The Implementation of an Educational Re-Entry Policy for Girls After Teenage Pregnancy: a Case Study of Public Secondary Schools in Kuria District, Kenya. Unpublished Dissertation. Wellington: Victoria University of Wellington.

Omwancha, K. M. (2013). Re-entry policy for teenage mothers in Kenya. Ministry of

Onyango, G. O., Kioli, F. N., and Nyambedha, E. O. (2015). Challenges of School Re-Entry among Teenage Mothers in Primary Schools in Muhoroni District, Western Kenya. Available online at: https://www.researchgate.net (accessed January 10, 2015).

Opondo, C. M., and Aloka, P. J. (2022). Effect of school category on adjustment of re-admitted teenage mothers in secondary schools. *ScienceRise* 3, 48–56. doi: 10.21303/2313-8416.2022.002534

Oringanje, C., Meremikwu, M. M., Eko, H., Esu, E., Meremikwu, A., and Ehiri, J. E. (2009). Interventions for preventing unintended pregnancies among adolescents. *Cochrane Database Syst. Rev.* 2:CD005215. doi: 10.1002/14651858.CD005215. mub2

Oruko, K., Nyothach, E., Zielinski-Gutierrez, E., Mason, L., Alexander, K., Vulule, J., et al. (2015). 'He is the one who is providing you with everything so whatever he says is what you do': a qualitative study on factors affecting secondary schoolgirls" dropout in Rural Western Kenya. *PLoS One* 10:e0144321. doi: 10.1371/journal.pone.014

Patton, G., Olsson, C., Skirbekk, V., Saffery, R., Wlodek, M., Azzopardi, P., et al. (2016a). Adolescence and the next generation. *Nature* 554, 458–466.

Patton, G., Sawyer, S., Santelli, J., Ross, D., Afifi, R., Allen, N., et al. (2016b). Our future: a Lancet commission on adolescent health and wellbeing. *Lancet* 387, 2423–2478.

Patton, M. Q. (1990). *Qualitative evaluation and research methods*, 2nd Edn. Thousand Oaks, CA: Sage publications, Inc.

Patton, M. Q. (2002). *Qualitative Research and Evaluation Methods*, 3rd Edn. Thousand Oaks, CA: Sage Publications.

Plan International (2012). Because I am a Girl, the State of the World's Girls. Learning for Life. New York: United Nations.

PMNCH (2022). Progress report on every woman every child: Women's and children's and adolescent's health. Available online at: https://pmnch.who.int/news-andevents/campaigns/every-woman-every-child

Population Council (2015). Conceptualizing and Measuring Unintended Pregnancy and birth: Moving the Field Forward," STEP UP Meeting Report. Accra. New York, NY: Population Council.

Relief web (2020). Available Online at: https://www.reliefweb.int/reput/kenya/covid-19-lockdown-linked-high-number-unintended-pregnancies-kenya. (accessed July 9, 2020).

Rosenberg, M., Pettifor, A., Miller, W. C., Thirumurthy, H., Emch, M., Afolabi, S. A., et al. (2015). Relationship between school dropout and teen pregnancy among rural South African young women. *Int. J. Epidemiol.* 44, 928–936.

Rosenthal, M. S., Ross, J. S., Bilodeau, R., Richter, R. S., Palley, J. E., and Bradley, E. H. (2009). Economic evaluation of a comprehensive teenage pregnancy prevention program: pilot program. *Am. J. Prevent. Med.* 37, S280–S287. doi: 10.1016/j.amepre. 2009.08.014

Ruzibiza. (2021). 'They are a shame to the community' stigma, school attendance, solitude and resilience among pregnant teenagers and teenage mothers in Mahama refugee camp, Rwanda. *Global Public Health* 16, 763–774. doi: 10.1080/17441692.2020. 1751230

Sadler, L. S., Swartz, M. K., Ryan-Krause, P., Seitz, V., Meadows-Oliver, M., Grey, M., et al. (2007). Promising outcomes in teen mothers enrolled in a school-based parent support program and child care center. *J. Sch. Health* 77, 121–130. doi: 10.1111/j.1746-1561.2007.00181.x

Sandøy, I. F., Mudenda, M., Zulu, J., Munsaka, E., Blystad, A., and Makasa, M. C. (2016). Effectiveness of a girls' empowerment programme on early childbearing, marriage and school dropout among adolescent girls in rural Zambia: study protocol for a cluster randomized trial. *Trials* 17:588. doi: 10.1186/s13063-016-1682-9

Save the Children (2020). Kenya Rates Poorly in Teen Pregnancy War. Kenya: Daily Nation newspaper.

Schumacher, P. B. (2013). When combinatorial processing results in reconceptualization: toward a new approach of compositionality. *Front. Psychol.* 4:677. doi:10.3389/fpsyg.2013.00677

Shahidul, S. M., and Karim, A. Z. (2015). Factors contributing to school dropout among the girls: a review of literature. *Eur. J. Res. Reflection Educ. Sci.* 3, 25–36.

Sidze, E., Stillman, M., Keogh, S., Mulupi, S., Egesa, C. P., Leong, E., et al. (2017). From Paper to Practice: Sexuality Education Policies and Their Implementation in Kenya. New York: Guttmacher Institute.

Skider, S., Malarcher, S., Taylor, S., and Ramsey, M. (2014). Educating Girls: Creating a Foundation for Positive Sexual and Reproductive Health Behaviours. Paris: UNESCO.

Sobngwi-Tambekou, J. L., Tsague-Agnoux, M., Fezeu, L. K., and Ndonko, F. (2022). Teenage childbearing and school dropout in a sample of 18,791 single mothers in Cameroon. *Reprod. Health* 19:10. doi: 10.1186/s12978-021-01323-4.

Spaulding, S., Derrick-Mills, T., and Callan, T. (2016). Supporting Parents Who Work and Go to School: a Portrait of Low-Income Students Who are Employed. Washington, DC: Urban Institute.

Steinka-Fry, K. T., Wilson, S. J., and Tanner-Smith, E. E. (2013). Effects of school dropout prevention programs for pregnant and parenting adolescents: A meta-analytic review. *J. Soc. Soc. Work Res.* 4, 373–389.

STEP-UP (2016). Case Study-Kenya: Helping Adolescent Mothers Remain in School Through Strengthened Implementation of School re-Entry Policies. Nairobi: STEP-UP.

Sulo, P., Nyang'au, T., and Chang'ach, J. K. (2014). Barriers to effective parental participation in teenage mothers' education in mixed day secondary schools: a case of Wareng' District, Uasin Gishu County, Kenya. *J. Emerg. Trends Educ. Res. Policy Stud.* 5, 133–139.

Tarus, C. B. K. (2020). De-Stigmatizing teenage motherhood: the re entry policy implementation in Kenya. *Int. J. Res. Innov. Soc. Sci.* 4, 78–93.

The Basic Education Act (2013). Nairobi: Ministry of Health

Tracy, S. J. (2010). Qualitative quality: eight "big-tent" criteria for excellent qualitative research. Q. Inquiry 16, 837–851.

Treffers, P. E. (2003). Teenage pregnancy, a worldwide problem. *Nederlands Tijdschrift Voor Geneeskunde* 147, 2320–2325. doi: 10.5772/65462

Undie, C. C., Birungi, H., Odwe, G., and Obare, F. (2015a). Expanding access to secondary school education for teenage mothers in Kenya: A baseline study report. Available online at: https://healtheducationresources.unesco.org/library/documents/expanding-access-secondary-school-education-teenage-mothers-kenya-baseline-study

Undie, C., Birungi, H., Obare, F., and Odwe, G. (2015b). Effectiveness of an intervention to improve education outcomes among teenage mothers in Kenya: A quasi-experimental study. *J. Adolesc. Health* 57, 201–208.

UNESCO (2015a). *Investing against Evidence*: The Global State of Early Childhood Care and Education Supporting the Education and Health of Young Mothers in Africa.

UNESCO (2015b). Emerging evidence, lessons and practice in comprehensive sexuality education: A global review. Paris: UNESCO.

UNESCO (2017). Early and Unintended Pregnancy and the Education Sector: Evidence Review and Recommendations. Paris: UNESCO.

UNESCO (2018). One in Five Children, Adolescents and Youth is out of School (UIS Fact Sheet No. 48. UIS/FS/2018/ED/48). Paris: UNESCO.

UNESCO (2019). Global Education Monitoring Report 2019: Gender Report: Building Bridges for Gender Equality Global Education Monitoring Report Team. Paris: UNESCO.

 ${\tt UNFPA~(2013a)}.~ \textit{Adolescent pregnancy: A review of the evidence}.~ {\tt New~York: UNFPA}.$

UNFPA (2013b). Motherhood in childhood: Facing the challenge of adolescent pregnancy. State of World Population 2013. New York, NY: United Nations Population Fund.

UNFPA (2014). The power of 1.8 billion: Adolescents, youth and the transformation of the future: State of the world population 2014. New York: UNFPA.

UNFPA (2015). Girlhood, Not Motherhood Preventing Adolescent Pregnancy. New York: UNFPA.

UNFPA (2017). Adolescent Pregnancy and Development. New York: UNFPA.

UNFPA (2018a). Adolescents and Youth Dashboard. New York: UNFPA.

UNFPA (2018b). Adolescent Pregnancy. New York: UNFPA.

UNFPA (2018c). Sustainable Development Goals. New York: UNFPA.

UNFPA (2019). Unfinished Business: the Pursuit of Rights and Choices for all (UNFPA State of World Population. New York: UNFPA.

UNICEF (2008). Fact Sheet-World Population Day. New York: UNESCO.

UNICEF (2022a). Adolescent Girls in West and Central Africa: Adolescent Girls in West and Central Africa. New York: UNESCO.

UNICEF (2022b). Global Education Monitoring Report 2022: Gender Report, Deepening the Debate on Those Still Left Behind. New York: UNESCO.

UNICEF and UIS (2016). Monitoring Education Participation: Framework for Monitoring Children and Adolescents Who are Out of School or at Risk of Dropping out. UNICEF Regional Office for Central and Eastern Europe and the Commonwealth of Independent States. New York: UNESCO.

United Nations (2022). The Sustainable Development Goals Report 2022. New York, NY: United Nations.

Uromi, S. M. (2014). Schoolgirl pregnancies as most critical and rapidly growing challenge in Tanzania. *Int. J. Innov. Sci. Res.* 10, 191–194.

Wachira, J., Kamanda, A., Embleton, L., Naanyu, V., Ayuku, D., and Braitstein, P. (2016). Pregnancy has its advantages': the voices of street connected children and youth in Eldoret, Kenya. *PLoS One* 11:e0150814.

Wekesa, A. N. (2010). Bending the Private-Public Gender Norms: Negotiating Schooling for Young Mothers from Low-Income Households In Kenya. Unpublished Research Paper. Netherlands: International Institute of Social Sciences

Wekesa, V. (2014). Re-admission policy and Kenya certificate of secondary education performance in Bungoma North Sub-County, Kenya. *Int. J. Innov. Res. Dev.* 3, 4361–4441.

World Bank (2018a). The World Bank Group (WBG) and Adolescent Girls'Education Factsheet. Washington, DC: World Bank.

World Bank (2018b). Missed opportunities: The high cost of not educating girls. Washington, DC: World Bank.

World Health Organization (WHO) (2011a). Health Systems Strengthening: Glossary. Geneva: WHO.

World Health Organization (WHO) (2011b). WHO Guidelines on Preventing Early Pregnancy and Poor Reproductive Outcome Among Adolescents in Developing Countries. Geneva: WHO.

World Health Organization (WHO) (2014). Adolescent Pregnancy: Situation in South-East Asia Region, Bangkok. Geneva: WHO, 95.

 $World\ Health\ Organization\ (2022).\ Global\ health\ estimates\ 2022.\ Available\ online\ at: https://www.who.int/data/gho/data/themes/mortality-and-global-health-estimates$

Yakubu, I., and Salisu, W. J. (2018). Determinants of adolescent pregnancy in sub-Saharan Africa: a systematic review. *Reprod. Health* 15:15. doi: 10.1186/s12978-018-0460-4