

The Interconnectedness Of Poverty, Child And Early Pregnancy: The Dilemma Of Education Stakeholders In Supporting Girls' Education In Senegal

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Abstract.

The paper examines the interrelationship of poverty, early marriage and early pregnancy in Senegal; the consequences of early marriage and pregnancy on school outcomes, and how do they differ by region? The study adopted a conceptual framework that hinges on Bronfenbrenner's ecological theory of development. Data is from qualitative interviews with 96 participants: six policymakers; 26 program actors; 64 beneficiaries, including 32 parents and 32 adolescents in 2020. We found that poverty and social norms are inextricably linked to early marriage and early pregnancy. Overall, more work is needed to curb early marriage, child marriage, and female genital excision.

Keywords: Early marriage, poverty, early pregnancy, adolescents, policymakers and Senegal.

I. INTRODUCTION

A marriage that occurs before a girl attains the age of 18 is a major violation of basic human rights (Kohno et al., 2020; Paul & Mondal, 2021). Various factors predispose children, in particular, girls to the risk of child marriage, especially poverty, and the question of honor. In certain communities, the notion that marriage will lead to honor within the family, and could be a 'protection' option or prospect for girls, are prevalent social norms (Ahonsi et al., 2019; Kohno et al., 2020). In addition both customary and religious laws within some communities where poverty is prevalent, suffer from poor inadequate legislative framework and a weak civil registration system (Kohno et al., 2020). The practice of child marriage is more prevalent among girls than boys and remains a gross violation of human rights (children's rights) regardless of the sex that is exposed to this vice (Kohno et al., 2020; Schaffnit, Urassa, & Lawson, 2019; UNICEF, 2021).

For instance, Sub-Saharan Africa has the highest prevalence of child marriage standing at 38%, with the West African Country Niger having a prevalence of 76 %, with South reporting 30% and Latin America closely behind with 25% (UNICEF, 2020). Child marriage remains a vice that saw the formation of "Girls Not Brides" which is a worldwide partnership of over 1000 civil society organizations. The large partnership was founded "to accelerate efforts to prevent child marriage" reinforcing the Sustainable Development Goals (SDGs) in 2015 that pledged to "eradicate all injurious practices, like early, child, and forced marriages" (Schaffnit et al., 2019). These initiatives show that the international community is still committed to the elimination of this vice in Africa and Asia where about 40% and 50% of girls usually get married before they attain the age of 18 respectively (Schaffnit et al., 2019).

II. LITERATURE REVIEW

2.1. Detrimental effects of child marriage

The effects of child marriage are often harmful and injurious for both the young mothers and their children, and this transcends to the whole community. Married teenage mothers are still more likely to have more children. Moreover, early childbearing predisposes these teenage mothers to suffer from various health complications compared to their adult peers (Kabir, Ghosh, & Shawly, 2019; Raj, Saggurti, Balaiah, & Silverman, 2009; Raj et al., 2019). In addition, the effects of child marriage are intergenerational—the consequences are also experienced by those children born to teenage mothers. For instance, a child of a young mother is more likely to die two times greater than those children born to women in their twenties (Harron et al., 2020; Raj & Boehmer, 2013). Furthermore, the negative health effects of child marriage

include the risk of compromised sexual, reproductive, and maternal health, heightened risk of depression, and proportions of suicide (Gage, 2013; Raj, Saggurti, Lawrence, Balaiah, & Silverman, 2010), and a more likelihood that the girls will experience intimate partner violence (Gage, 2013). As well, child marriage also decreases social and physical mobility, reduces the autonomy and decision-making of girls in the household and within their communities (Delprato, Akyeampong, Sabates, & Hernandez-Fernandez, 2015; Kyari & Ayodele, 2014; Talukder, Hasan, Razu, & Hossain, 2020).

2.2. Early marriage as a barrier to girls' education

In terms of education, early marriage negates girls' ability to attend school post-marriage, thereby leaving them exposed to a range of negative social and health outcomes related to the termination of their education (Delprato, Akyeampong, & Dunne, 2017; Lloyd & Mensch, 2008; Omoeva & Hatch, 2020). However, evidence suggests that promoting the education of girls is one of the ways of reducing early marriage in many contexts (Chae & Ngo, 2017; Kalamar, Lee-Rife, & Hindin, 2016). For instance, girls who are not in school are more susceptible to early marriage and consequently a bottleneck to attending school post-marriage due to early childbearing and child-care duties (Kabir et al., 2019; Kalamar et al., 2016; Omoeva & Hatch, 2020), the many restrictions that may be imposed by the husband and/or in-laws (Kabir et al., 2019; Melesse et al., 2021), and limiting policies in some of the sub-Saharan African countries (Evans & Acosta, 2020). It should be noted that a vast majority of these countries have since lifted these restrictive measures (Bhalla, 2020). This foregoing discussion points to a two-way relationship between education and early marriage (Delprato et al., 2017; Delprato et al., 2015; Lloyd & Mensch, 2008; Raj et al., 2019).

Moreover, girls and young women who are not economically self-sufficient because of not receiving an education, made worse by the advent of early marriage, especially when early marriage is at its peak (Delprato et al., 2015; Kabeer, 2016; UNICEF, 2021), risks of school dropout is high. Consequently, school dropout inhibits economic empowerment, particularly, concerning the ability to earn income, which is further inhibited by the occurrence of early marriage (Delprato et al., 2017; Delprato et al., 2015; Kyari & Ayodele, 2014). In addition, attaining a higher level of education enhances the chances of girls and women being self-sufficient, reduces the overreliance on male partners, and increases self-sufficiency and agency (Kabeer, 2016; Kalamar et al., 2016; Karoui & Feki, 2018; Klasen & Lamanna, 2009). This foregoing discussion points to the notion that the outcomes of not attaining education, as a result of dropout is similar to what accrues to girls as a result of early marriage, which includes, limited access to sexual and reproductive health, isolation of girls from their peers and mentors, reduced social mobility, worsened by the economic vulnerability (Islam, Haque, & Hossain, 2016; Kyari & Ayodele, 2014).

2.3. The linkage between poverty, culture, early marriage, and girls' education

Research evidence suggests that in Africa, the bride's wealth paid at the point of marriage, in exchange for the bride's labor and fertility is indeed a source of wealth and survival out of poverty for the bride's family. Therefore the anticipation of the bride's wealth by the bride's family encourages child marriage, often supported by their parents (Lloyd & Mensch, 2006). Moreover, many families in Africa champion early marriage to uphold morality and honor towards/ on behalf of their respective families. In so doing, parents will encourage early marriage when a girl is still a virgin so that the in-laws can pay a higher price, thereby honoring her family (Oladejo, 2020).

Consequently, in some communities in Africa, early marriage is seen as a way to shield girls from unwanted pregnancies, and pregnancies outside of wedlock (Kohno et al., 2020). Marrying girls to older men is seen as cushioning girls against decadent and inappropriate behavior by these young wives (Kyari & Ayodele, 2014; Lloyd & Mensch, 2006). According to Stark (2018), there are two ways to early marriage; poverty and economic disparities by gender influences girls to enter into transactional sexual relationships early, making parents approve of early marriage as a measure to reduce pregnancies from such transactional relationships. Secondly, girls are forced into early marriage when they involuntarily stop going to school, making early marriage the only option through which girls can culturally reinvent themselves and be self-sufficient.

2.4. Sexual and reproductive health and rights in Senegal

Evidence from UNFPA (2018) shows that in 2011, 33% of women aged between 20-24 got married before attaining the age of 18. However, the situation is dismal when the analysis is done for the 14 regions in Senegal. For example, the highest rate of marriage before attaining age 18 was observed in Kedougou at 72%, with the rest of the regions recording above 40% (UNFPA, 2018). Furthermore, UNFPA (2018) estimates that of the women aged 20-24, 48% of them who got married before the age of 18, had no education, while 65 % who got married before the age of 18, were in the lowest wealth quintile. Moreover, early marriage is significantly high in Senegal, and this is linked to early pregnancy (Gutmacher & IPPF, 2014). For example, the UNFPA dashboard estimates that among women aged 20-24 years, about 21% had given birth before the age of 18 years.

These proportions get worse for women who live in the rural areas and have no education standing at 32%, for both of these categories, as compared to those women aged 20-24 who live in the urban areas and have a secondary level of education, which stands at 2.4% and 0.2% respectively. Moreover, this tendency is also observed among girls aged 15-19 who live in rural areas, have no education, and are in the lowest wealth quintile. For example, about 43% of these girls aged 15-19 have ever had sex with about 23% being sexually active (UNFPA, 2018). It is against this background that this paper seeks to answer these two questions: The research questions include: What is the interrelationship of poverty, early marriage and early pregnancy in Senegal? Secondly, what are the consequences of early marriage and pregnancy on school outcomes, and how do they differ by region? And thirdly, what strategies do the stakeholders propose to alleviate the challenge of early marriage and encourage school retention.

3.0. Theoretical framework

The proposed study adopts a conceptual framework that hinges on Bronfenbrenner's ecological theory of development (Bronfenbrenner, 2005; Bronfenbrenner & Morris, 2007). This theoretical lens emphasizes how individuals, in this case, adolescent girls, interact with the contexts in which they live, and how these interactions affect their schooling, and sexual and reproductive health outcomes. To look at the nexus between poverty, early marriage, and schooling of adolescent girls in Senegal, the study takes into account the different levels of the ecosystem. These levels include i) microsystems—which refers to the immediate factors around the adolescent girls like the family and peers; ii) mesosystems—describing the interactions between different microsystems, such as how the family system interacts with the adolescent girls to influence their schooling, and what influence they get from their peers, that may negate or reinforce their schooling; iii) exosystem— representing those factors such schools that girls attend, the neighborhood that girls live in and the media which is a medium that relays different messages to the adolescent girls.

The exosystem also includes how such factors interact with the microsystems; iv) macro-systems—referring to bigger factors such as culture, religion, ethnicity, laws, and policies and how these are implemented, and education systems that shape the behaviors; and, v) chronosystem which relates to the influence of time on the adolescents within their context, and also encapsulates modifications within the individual or their environment over time. According to Bronfenbrenner (2005), this interaction between the various systems, and their impact on the behavior is referred to as the “process”. For instance, how an individual interacts with a specific environment (context) over time, has a likelihood of producing certain behaviors that are unique to the environment in which the individual is located.

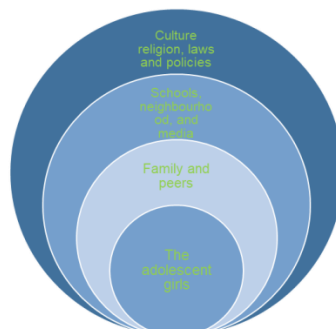


Fig 1. The Interaction of the different contexts to influence the adolescent girls

III. METHODS

Study setting

This study uses data collected from a representation of participants covering the fourteen regions of Senegal. Senegal had a population of 15.7 million in 2018, which is concentrated in the west and center of the country, with the east and north being sparsely populated. Although Senegal has more than 20 ethnic groups, approximately 90% of the population belongs to five dominant ethnic groups (Wolof (43%), Pulaar (24%), Seereer (15%), Joola (5%) and Mandingo (4%). Moreover, Senegal has made progress in terms of the fight against poverty and inequality in the recent past.

In Senegal, the poverty rate dropped by 8.5 percent to stand at 46.7% between 2001 and 2011. This notwithstanding, between 2006 and 2014, the number of poor people continued to rise, as the economy slowed down. However, in 2017, the prevalence of poverty in Senegal was estimated to stand at 35.6% (World Bank, 2017). In 2020, the poverty index stagnated due to COVID-19, it resumed its fall in 2021, and reached the 30.3% mark in 2022. (World Bank, 2020). In terms of the age structure, adolescents aged 10-19, and young adults aged 20-24 represent approximately 22.5% and 9% of the population in Senegal, respectively (ANSD, 2013).

Study design and sample

Data is from a larger program that was implemented in Senegal whose main goal was to improve education outcomes and the overall well-being of girls in Senegal. The study from which we draw the narratives was a two-part study. The first phase sought to establish the status of education and the implications of Sexual Reproductive Health and Rights (SRHR) for adolescent girls' education in Senegal through a scoping review. The second phase sought to determine the perspectives of various education stakeholders including policy makers, program actors, parents and girls and boys enrolled in various education and SRHR programs in Senegal. The generated evidence was not only important for painting a picture of the status of education in Senegal but also for policy formulation, refinement, and/or enhanced implementation. It is from the qualitative narratives that we draw nuances and narratives about the linkages between poverty, early marriage, and schooling outcomes of adolescents. Qualitative interviews were conducted by the research staff with 96 participants who consisted of six policymakers; 26 program actors, whose role was to implement the education and SRHR programs; 64 beneficiaries, including 32 parents and 32 adolescents. (See table 1). Of the adolescents interviewed, 63% and 37% consisted of girls and boys in the 10-14 age group with 15-19 age group consisting of 76% girls and 24% boys.

Table 1. The participants that were interviewed in each of the regions

Study Population	Dakar	Diourbel	kaffrine	Matam	Sedhiou	Zingunchor	Total
Ministry Officials	6						6
Program Actors	24			1		1	26
Parents	4	4	4	4	4	12	32
Adolescents	4	4	4	4	4	12	32

Method

Qualitative method was used in this study. In qualitative research, the human is used as an instrument (Lincoln & Guba, 1985). We used purposeful sampling to identify and select rich informants and individuals whose experiences were vital for bringing to the fore the challenges that affect adolescents, both from an education and SRHR standpoint. The participants who were purposefully selected shared their knowledge of education and reproductive health issues in Senegal to maximize efficiency and validity (Cresswell & Plano, 2011).

4.3.1. Selection of ministry officials: We selected six ministries of education officials from five key ministries namely; the Ministries of Education, Professional Training, Health and Social Action, Higher education, and of Family, Gender, and Youth. The reason for their inclusion was that the officials were in charge of the Gender Department or supported interventions in girls' education within their ministries.

4.3.2. Selection of program actors: We enlisted 26 program actors into the study. Their inclusion was guided by a mapping exercise that had been done during Phase 1 of the project, which identified those interventions and programs, which were being implemented in education and SRHR.

4.3.3. Selection of parents: We held 32 in-depth interviews with parents from six regions namely; Ziguinchor, Matam Diourbel, Dakar, Sédhiou, and Kaffrine.

4.3.4. Selection of adolescents: We conducted 32 in-depth interviews with adolescents, both boys, and girls whom were recipients of the education and SRHR interventions projects implemented in six targeted regions.

4.3.5. Selection of regions: The regions of Senegal were also included in the study, guided by the Scoping Review findings. For instance, Diourbel and Kaffrine were included because they exhibited low education indicators. Matam was enlisted due to the prevalence and practice of FGM while Dakar and Ziguinchor, were part of the study because of their good education indicators. The uniqueness of Ziguinchor lay in its good education results, yet poor SRHR outcomes.

Interview Questions

The key informant interviews with policymakers and program implementers, sought to understand the status of education and SRHR in Senegal; to explore the reasons behind regional, age, and gender disparities in education and SRHR; to establish the effect of policies and programs in education and SRHR on beneficiaries; and to explore opinions about the link between education and SRHR. Interviews with adolescents sought to understand the status of education and SRHR in Senegal and to establish the impact of different programs on education and SRHR on them and their parents as beneficiaries of the individual programs. For parents and guardians, the interview questions sought to understand the status of education and SRHR in Senegal and the impact of different programs on education and SRHR on beneficiaries. Sample questions included: "What are the barriers to school completion starting with elementary, middle, and secondary school? Probe for both boys and girls?" "What are the key successes or benefits you would say are attributed to the program?" "In your opinion, what do you expect the parents and community, in general, to do differently to improve the education of young people like you in this community?" and "what are your roles as a parent/guardian in supporting your child's education?"

Data Analysis

The data was analyzed inductively and deductively and interpreted based on research questions. In addition, the narratives were analyzed following the (Miles & Huberman, 1994), matrix format that enables the researchers to identify the differences and similarities, between the perceptions of education stakeholders involved in the study--policy makers, program actors, parents, girls and boys. Through coding the research team was able to locate and put in perspective key thematic thrusts, conceptual ideas, and relationships which were thereby mapped onto the matrix. Thereafter, we drew conclusions based on the patterns that we saw in the data emerging from the various thematic areas. To get to the differences and similarities in perspectives of education stakeholders, we compared and contrasted the various codes, while clustering similar codes. (Miles & Huberman, 1994).

IV. RESULTS AND DISCUSSION

Result

Parents and adolescents were asked to speak on the status of education in Senegal and the obstacles that hinder the education and well-being of adolescent girls in their communities. Adolescent girls were specifically encouraged to reflect on their difficulties as learners. Some of the terms used that came from the data were "marriage", "financial means", "child marriage" or "early pregnancy" which pointed to the main problems the adolescents faced in the quest for an education.

The linkages between poverty, early marriage, and early pregnancy

Parents and adolescents explain the relationship between poverty and early marriage. For instance, poverty hampered the ability of parents to provide their financial obligations for their adolescent girls. The financial inability of parents made it difficult for them to honor the payment of charges levied in schools as their children progressed through the various levels of schooling. Therefore, parents had no alternative but to withdraw their daughters from school. For girls, withdrawal from school meant that they became targets for early marriage, leading to exposure to early pregnancy at middle and secondary school levels. For instance, an adolescent girl explains how students who are determined to study may not be able to, because of the

limited financial means of their parents leading to them dropping out, a factor that may lead to early marriage. This girl explained:

Sometimes, some young people want to study but the lack of financial means often causes a problem. Parents do not have the economic resources to invest in their children's education by paying for their school fees and buying school supplies.... (IDI, Adolescent Girl, Kaffrine, 9/10/202).

To reinforce the detrimental effects of poverty as an economic cause to child marriage and early pregnancy, the program actor had this to say ...” ...Parents marry their children because of poverty, dignity, respect” (KII, Program Actor, Female, 4/10/2020).

Moreover, parents and adolescents identified the interrelationship between early marriage and early teenage pregnancy as obstacles to their education. This was documented in the scoping review (Abuya et al., 2020), which extrapolated the state of education and its implications for sexual reproductive health and rights (SRHR) in Senegal. In some instances, early marriage occurs before early pregnancy, but in some instances, early pregnancy is the precursor for early marriage. For instance, according to adolescent girls' narratives, teen pregnancy is a real menace for girls in regions such as Sédhiou where about five to seven girls in a class got pregnant before the end of the school year and consequently withdrew from school. Once girls become pregnant, parents tend to give them off to potential suitors for marriage. An adolescent girl stated:

There is also the problem of early pregnancies which is very visible in the Sédhiou region because there are classes where 5 out of 7 girls get pregnant before the end of the school year and will not be able to continue their studies. There is also the problem of early marriages, for parents give them in marriage before they can continue their studies. (IDI, Adolescent Girl, Sédhiou, 12/10/2020).

The adolescent girls were well aware that early marriage is detrimental to girls' education. However, the choice to stay in school is often not theirs to make but their parents. For example, parents married off their daughters at an early age against their will, as early as the end of the primary school cycle. In so doing girls did not have a chance to advance their education to secondary school. For parents, early marriage is viewed as a way of protecting girls from undesired pregnancies. This is what one of the adolescent girls had to say:

I'm going to take the example of girls, if I may, the example of early marriage because it's something I know very well. When the girls reach the last grade of primary school and their bodies develop. The parents propose marriage and they fled home to go and settle somewhere else. So, their future is compromised. Sometimes they are in a family where the parents are poor, and in this way they are exposed to all sorts of dangers, they are given trays of mint leaves to sell from door to door. So, they go out to sell the hours they were supposed to spend learning. (IDI, Adolescent Girl, Ziguinchor, 15/10/2020).

The notion that parents are responsible for the early marriage and the discontinuing of girls education as coping strategy to keep them away from engaging in sexual activity was also well articulated by these male parents:

The young people are doing quite well, however, some parents do not agree to let their children continue their studies until they succeed, for them the best thing would be to give their daughters into marriage as soon as they reach a certain age otherwise they will be perverted by the boys. This is why parents do their best to marry off their out-of-school girls as soon as possible; this will lead to forced marriage and the girl's non-consent. (Male parent, Ziguinchor, 9/10/2020).

A program actor reinforced the parental behavior of marrying their teenage daughters to prevent them from getting pregnant, due to the shame it brings to certain families and communities: This what this program actor said:

Factors that explain child marriages are, among others, the precocity (the appearance of secondary sexual characteristics before the lower limit of the normal age for puberty) of the girls. The desire of their parents to prevent an unwanted pregnancy can lead them to give them into marriage on the one hand and on the other hand to avoid the shame of ending up with an unwanted pregnancy. (KII, Program Actor, Male, 3/11/2020).

Other parental narratives pointed to early marriages being an outcome of the parents' belief that girls' education is not sustainable as these girls usually end up in the kitchen. This parent declared:

This is more common among girls. When they don't get the Primary Education Certificate, their parents ask them to drop out on the pretext that girls' education is not sustainable and that sooner or later they will end up in the kitchen. If they don't have an educated person in the neighborhood, no one will encourage them to study. In addition, at the age of 15, many girls are given away in early marriage. For example, not long ago, a girl aged 15 or younger was given in marriage and was to go to her marital home in Touba. In any case, the main cause is early marriage. (IDI, Female Parent, Dakar, 8/10/2020).

Other main causes of early marriage?

From the qualitative narratives, it was revealed that contextual barriers influencing early marriage included the socio-cultural and economic realities of girls in the respective communities. These obstacles were confirmed by stakeholders as impacting negatively on girls' education and well-being. In addition to economic realities, such as poverty and traditional values, policymakers identified the absence of support mechanisms or weaknesses in existing mechanisms that prevented youth from having their questions on sexuality addressed. They also mentioned the absence of communication and the lack of awareness of existing structures of assisting young people, particularly girls delay the onset of early marriages within their respective communities. Program actors reiterated the impact of poverty as a precursor of early marriages and recognized the precocity of youth sexuality, which they deemed problematic in certain areas, particularly in the South of Senegal.

A policymaker reported on the lack of assistance and support for adolescent groups in need of sexual education. She accused society at large of giving up on the supervision and support of its youth.

We can always do things without being aware of the consequences because we don't know ourselves.

When the child is at the age where he needs sexual education, he needs to be accompanied. We do not (find) this accompaniment anymore in our society. (KII, Ministry actor, Female, 2/10/2020).

Moreover, program actors also pointed out issues the lack of sexual education as a contributory factor for young girls' exposure to the risk of early pregnancy, and marriage. In support of the policy actors, the program actor explained, *"I think that there is a lack of information on sexuality, so we have to give them the right message....If we don't prepare them psychologically, this lack of awareness could increase their vulnerability"*. (KII, Program Actor, Male, 7/10/2020).

Some policymakers criticized the negative influence of social media and the lack of vigilance by the family in exposing adolescents to social ills, such as early pregnancy.

There is the fact that the adolescent is at a level of sexual maturation, they do not understand what happens to them. That is one element. We have lost the device of accompaniment of the children, to think about the media and the social networks, which burst in the life of these children, therefore a bad use of these media, and the social networks. There is a lack of supervision on the part of the family. (KII, Ministry actor, Female, 2/10/2020).

It also became apparent that some stakeholders were opposed to some reproductive health programs that distribute condoms that in their view impact negatively on children's education and behavior by encouraging them to be sexually active and engage in sexually risky behavior.

First of all, when we talk about reproductive health, I have a different idea. Because you take your child and make him aware of the use of condoms so that girls cannot get pregnant and go to school. I say it is destroying the education of the child. Because when we talk about prevention or sensitization it is for married people. And now we let children use condoms for free, which is the destruction of the education of children. (KII, Ministry actor, Female, 2/10/2020).

In general, policymakers and program actors validated the socio-cultural (including religious) and economic factors espoused in the Scoping Review (Abuya et al., 2020) that could explain the realities of early pregnancy in Senegal. In addition, the policymakers also mentioned the lack of political willpower to act on the Family Code 1989, Article 111 has fixed the minimum legal age of marriage to 16 years for girls and 18 years for boys. Moreover, there is lack of enforcement of the newly signed international resolution on child marriages that moved/changed it to 18 years for girls. The narratives from education stakeholders showed

that the main issues derived from interviews with policymakers and program actors were "cultural", "religious" and "socio-economic".

One policymaker regretted the lack of legal endorsement to outlaw early marriage while also drawing attention to the cultural aspects that support such practices of early marriage and the fear of unwanted pregnancies among households and communities, thereby pushing parents and communities to push girls into early marriages.

What is lacking is the political will concerning early marriages. At age 16, there is no legal framework that prohibits marriage or consummate marriage. So, the girl is practically a lost girl. I always come back to the cultural dimension in certain localities [Emphasis added], when the girl is not married, at a certain age, she is considered to be an old maid. There is also fear of girls getting pregnant in some localities (which) means that the girl is given (away) in marriage early [Emphasis added]. (KII, Ministry Actor, Female, 2/10/2020).

Explaining the regional disparities in early pregnancy

The scoping review done as an earlier phase of the "Improving Girls Education" program unearthed key statistics regarding teenage pregnancy. For instance, the report by (FNUAP & GEEP (2019) revealed the persistence of high pregnancy cases among school girls, particularly in Sédhiou (198), Thies (172) and Ziguinchor (168) pregnancy cases. On the opposite end of the spectrum, Dakar 38, Saint Louis (39) and Diourbel 44% had the lowest number of teen pregnancy among schoolgirls. The situation in these regions was discussed with ministry officials and program actors. According to key stakeholders, the main causes of adolescent pregnancies in the southern regions of Sédhiou and Ziguinchor were related to poverty and the precocity (early development of secondary sexual characteristics) of adolescents, thereby affecting their sexuality. The immaturity of adolescents coupled with limited financial means and some local sexually liberal attitudes lead to adolescent involvement in sexual activities ending into early pregnancy.

The regions that have low rates of teen pregnancy, like Dakar, Diourbel, and Saint Louis attribute this to religious aspects, particularly Islamic values, and principles, especially in Diourbel and Saint Louis. Islamic values were seen as contributing to regulating teenagers' behavior and inhibiting their sexual appeal. In regards to Dakar, its privileged position of being the capital of Senegal with the presence of many support systems that raise awareness on adolescent sexuality, are factors that explain its relatively low incidences of teen pregnancy. One policymaker confirmed Dakar's exceptionality as the national capital and its numerous centers for adolescent health alongside information and support systems. This is how a Ministry actor explained the phenomena.

This is due to awareness-raising. Some adolescent centers and partners fight against early pregnancies in schools, which are based in Dakar. But on top of all this, information and communication are easier in these regions, particularly in Dakar. And another phenomenon that explains this low rate is that girls are practically more aware of contraception than other girls in the regions in the interior of the country. (KII, Ministry Actor, Female, 7/10/2020).

As proposed by one program actor, religious education in Diourbel and Saint Louis plays a significant role in stopping the girls in the community from engaging in social ills.

For example, the region of Diourbel is almost religious, so they have a religious education that allows them to take charge of their lives and protect themselves from certain acts; the region of Saint-Louis is also practically the same. Young people also have a much more open mind, whether in Saint-Louis or Dakar. (KII, Program Actor, Male, 5/10/2020).

Besides the above-mentioned regions, some communities are more or less impacted by the phenomenon of early pregnancy due to different social cultural norms and realities. For instance, being pregnant is more acceptable in certain ethnic groups compared to others. One policymaker explained that despite many programs being implemented in areas that have high incidences of pregnancies, socio-cultural beliefs and poverty remain the main drivers of the high rates.

Socio-cultural phenomena could explain this situation because I know these two regions well, and I have carried out a lot of activities there. There are some single girl mothers that I had met and when I asked them the question; one of them answered that at a certain age, if you don't have a boyfriend if

you don't have a child if you don't have a husband, the family laughs at you saying that the others have already proved themselves and you nobody expects anything from you. And so sociological, and sociocultural factors and the mentalities of each ethnic group in Senegal mean that it is more widespread in these areas. (KII, Ministry Actor, Female, 7/10/2020).

Explaining the regional disparities in child marriage

Looking at regional disparities, stakeholders confirmed that traditions, poverty, and religion were supporting or causing early marriages in regions such as Thiès, Matam, and Kaffrine. A program actor confirmed these assertions, particularly in Matam where the major ethnic group of Pulars is deeply rooted in their traditions of early marriage.

Sometimes, for regions like Matam, it's a question of social norms, there is a strong religious belief, and a belief in a culture which means that among the Halpoulars, they give children in marriage at a very early age. It's culturally certified and accepted that a child has to be given away very early in marriage. (KII, Program Actor, Female, 30/09/2020).

On the negative influence of culture on early marriages, a ministry official pointed out:

As far as Matam is concerned, it is because of tradition and religion. Because among the Toucouleurs, girls marry very young, and the ethnic tradition is also predominant in this social environment. (KII, Ministry Actor, Female, 3/10/2020).

Discussion

The goal of this paper was to examine the causes and consequences of early marriage and teenage pregnancies, and how early marriage and poverty affect school retention and accomplishment in Senegal. This study highlights important findings. A significant finding is that poverty and social norms are inextricably linked to early marriage and early pregnancy. On the one hand, some communities are reluctant to norm change as there are much attached to their traditional cultural realities. On the other hand it has been noticed that parental inability to provide financial support for school for their adolescent girls is a source of child marriage and early pregnancy. As such, parents withdraw their daughters from school, making them targets for early marriage and early pregnancy, while at middle and secondary school levels. This finding is similar to the one by Stark (2018), in which the author argues that when girls are forced to stop going to school, early marriage becomes one of the options through which girls can culturally reinvent themselves, thereby becoming self-sufficient. The withdrawal of girls from school as observed by the education stakeholders, is a prerogative of the parents. The very fact that parents marry off their daughters at an early age against their will, at middle school, and at times at secondary school; does not grant girls the chance of advancing in their education. For parents, early marriage is viewed as a way of protecting girls from undesired pregnancies and from shame. We presuppose that when girls are withdrawn from school, they lose the efficacy to, wade off the likelihood of reducing early marriage (Chae & Ngo, 2017; Kalamar et al., 2016).

In so doing parents enhance the likelihood that girls will not attend school post-marriage, either due to providing care to their children (Kabir et al., 2019) or due to restrictions within the policy environment in sub-Saharan (Evans & Acosta, 2020), and in this particular case in Senegal. Equipping parents with positive parenting skills would also go a long way in ensuring that they undertake their roles effectively and consequently avoid being influenced by negative cultural practices that demean girls' education or fall back on negative coping strategies like marrying their daughters off to enhance their economic status. Closely linked to the intricacies of early marriage and poverty was the absence of support mechanisms or weaknesses in existing mechanisms that prevent youth from having their questions on sexuality addressed. The education stakeholders also highlighted the absence of communication and lack of awareness on existing structures for the assistance of young people, particularly those that can assist girls to delay the onset of early marriages within their respective communities. We propose that if the interventions that address the issues of SRHR and life skills (Abuya et al., 2020), are implemented as should be, the youth, particularly girls will be equipped with the requisite knowledge and skills to sidestep the challenges of early marriage and pregnancy. The education stakeholders cite that alongside the interconnections of poverty and early marriage, there is a layer of cultural and religious barriers to the retention and completion of school for girls.

In particular, early marriage, early pregnancy, poverty and socio-cultural barriers limit the retention and completion of school. Culturally the data showed that girls did not further their studies as it was believed that their place was with their husbands. This finding mirrors (Lloyd & Mensch, 2006) who posit that culture is the cornerstone that drives child marriage a vice that is often supported by their parents. In addition, parents champion early marriage to honor their respective families, such that when girls give birth, they should do so in their respective families. Therefore, early marriage is often a way of shielding girls from unwanted pregnancies, thereby getting children out of wedlock (Kyari & Ayodele, 2014; Lloyd & Mensch, 2006). Despite the challenges brought about by early marriages and early pregnancies, it should be noted that Senegal remains committed to the fight against child, early, and even forced marriages. The country is one of the signatories of the Sustainable Development Goals (SDGs), which Target 5.3 seeks to, “achieve gender equality and empower all women and girls.” Senegal has ratified the joint statement of the Human Rights Council on strengthening efforts to prevent and eliminate child, early and forced marriages. However there is still a lot to be done considering that Senegal remains one of the countries in West Africa with the lowest median age at marriage of 15 years followed by Sierra Leone at 17 years (ANCEFA et al., 2009). In addition, Senegalese society is characterized by a strong patriarchal tradition, as well as a well-defined hierarchy between sexes and generations (Kane & Kane, 2018). As such, the family and the social group have a significant influence on individual choices. Some groups support early marriages because they magnify the roles of wife and mother while others would choose early marriage as a way to protect their daughters from unplanned pregnancies.

Therefore, some of the policy implications included:

- The education stakeholders called for relevant and well-funded local programs in areas where rates of early pregnancy and marriage and Female Genital Mutilation (FGM) are high. This includes the regions of Sédhiou and Ziguinchor (for early pregnancy), Thies, Matam, and Kaffrine (for early marriage), and Matam, Kédougou, Tamba, Ziguinchor and Kolda (for female genital excision).
- Even when sustainable and decentralized programs are needed, well-defined collaborations involving the community, religious leaders, and parents are needed for the whole programming process to be owned, internalized, and implemented by the respective communities. In addition, these initiatives need to be led by the community; including religious leaders in liaison with parents and adolescents. It was noted, that this could be seen as the missing link of most SRHR initiatives.
- Moreover, even though parents normally approve of their children being part of initiatives, parents are seldom not included from the start of all their projects to better serve the adolescents. This focus on collaborating with parents is key to the fight against early marriage, pregnancy, and FGM and would likely lead to the success of girls in school.
- From the conversations with the education stakeholders, it was imperative that programs need to target pre-adolescents with the approval and involvement of parents and communities. This is to ensure that reproductive health issues such as early marriage touching on girls which in some cases starts among girls as young as 10-12 years old are diagnosed early. If targeted earlier with information on how to challenge early marriage, the crisis in late adolescence could be avoided.
- The education stakeholders reiterated the need for cross-collaboration across the Ministries of Education and Health to synchronize the work on SRHR and education, such as girls staying in school, their education may act as a social vaccine against such vices as early marriage.

In conclusion, there is a need for more work to be done on early marriage, child marriage, and by extension female genital excision, beyond the Senegal commitment to the fight against them. Thus, there should be a more effective application of laws to eliminate early pregnancy, child marriages, and excision, beyond being a signatory to global and regional treaties. Implementation of communication strategies is essential in raising awareness of those laws and their penalties while taking into consideration each communities' economic and socio-cultural realities and religious beliefs. Source of Funding: This study was funded by Echidna Giving, **Grant No. 360.716 A**. The views expressed in the manuscript are those of the authors.

REFERENCES

- [1] Abuya, B. A., Muhia, N., Rokhaya, C., Fall Awa, N., Oumoukhairy Sall, N., Anta Fall Basse, K., & Faye, C. (2020). *The State of Education and Implications of SRHR on the Education of Adolescent Girls in Senegal*. Retrieved from Dakar:
- [2] Ahonsi, B., Fuseini, K., Nai, D., Goldson, E., Owusu, S., Ndifuna, I., . . . Tapsoba, P. L. (2019). Child marriage in Ghana: evidence from a multi-method study. *BMC Women's Health*, 19(1), 126. doi:10.1186/s12905-019-0823-1
- [3] Harahap, Arman ,2018, Macrozoobenthos diversity as bioindicator of water quality in the Bilah river, Rantauprapat, Medan. *J. Phys.: Conf. Ser.* 1116 052026.
- [4] ANSD. (2013). *Enquête Démographique et de Santé Continue au Sénégal (EDS-Continue) 2012-2013*. Retrieved from Rockville, Maryland, USA: https://www.ansd.sn/ressources/rapports/EDS-continue_2012-2013.pdf
- [5] Bhalla, N. (2020). Tanzania lets pregnant girls attend school with World Bank project. Retrieved from <https://www.reuters.com/article/us-tanzaniawomen-education-trfn/tanzania-lets-pregnantgirls-attend-school-with-world-bank>
- [6] Bronfenbrenner, U. (2005). *Making human beings human: Bioecological perspectives on human development*: sage.
- [7] Bronfenbrenner, U., & Morris, P. A. (2007). The bioecological model of human development. *Handbook of child psychology, 1*.
- [8] Chae, S., & Ngo, T. (2017). The global state of evidence on interventions to prevent child marriage.
- [9] Cresswell, J., & Plano, C. (2011). Designing and conducting mixed method research. *Thousand Oaks, CA*.
- [10] Delprato, M., Akyeampong, K., & Dunne, M. (2017). Intergenerational education effects of early marriage in sub-Saharan Africa. *World Development*, 91, 173-192.
- [11] Delprato, M., Akyeampong, K., Sabates, R., & Hernandez-Fernandez, J. (2015). On the impact of early marriage on schooling outcomes in Sub-Saharan Africa and South West Asia. *International Journal of Educational Development*, 44, 42-55.
- [12] Harahap, A. et, all, Macrozoobenthos diversity as anbioindicator of the water quality in the Sungai Kualuh Labuhanbatu Utara, AACL Bioflux, 2022, Vol 15, Issue 6.
- [13] Evans, K. D., & Acosta, M. A. (2020). Lifting bans on pregnant girls in school. *Lancet*, 396(10252), 667-668.
- [14] Gage, A. J. (2013). Association of child marriage with suicidal thoughts and attempts among adolescent girls in Ethiopia. *Journal of Adolescent Health*, 52(5), 654-656.
- [15] Guttmacher, & IPPF. (2014). Sexual and reproductive health of young Senegalese women. Retrieved from <https://www.guttmacher.org/fr/fact-sheet/sante-sexuelle-et-reproductive-des-jeunes-senegalaises>
- [16] Harron, K., Verfuerden, M., Ibiebele, I., Liu, C., Kopp, A., Guttmann, A., . . . Gilbert, R. (2020). Preterm birth, unplanned hospital contact, and mortality in infants born to teenage mothers in five countries: an administrative data cohort study. *Paediatric and perinatal epidemiology*, 34(6), 645-654.
- [17] Islam, M. K., Haque, M. R., & Hossain, M. B. (2016). Regional variations in child marriage in Bangladesh. *Journal of Biosocial Science*, 48(5), 694-708.
- [18] Kabeer, N. (2016). Gender equality, economic growth, and women's agency: the "endless variety" and "monotonous similarity" of patriarchal constraints. *Feminist Economics*, 22(1), 295-321.
- [19] Kabir, M. R., Ghosh, S., & Shawly, A. (2019). Causes of early marriage and its effect on reproductive health of young mothers in Bangladesh. *American Journal of Applied Sciences*, 16(9), 289-297.
- [20] Kalamar, A. M., Lee-Rife, S., & Hindin, M. J. (2016). Interventions to prevent child marriage among young people in low-and middle-income countries: a systematic review of the published and gray literature. *Journal of Adolescent Health*, 59(3), S16-S21.
- [21] Karoui, K., & Feki, R. (2018). The effect of gender inequality on economic development: Case of African countries. *Journal of the Knowledge Economy*, 9(1), 294-300.
- [22] Klasen, S., & Lamanna, F. (2009). The impact of gender inequality in education and employment on economic growth: new evidence for a panel of countries. *Feminist Economics*, 15(3), 91-132.
- [23] Kohno, A., Techasrivichien, T., Suguimoto, S. P., Dahlui, M., Nik Farid, N. D., & Nakayama, T. (2020). Investigation of the key factors that influence the girls to enter into child marriage: A meta-synthesis of qualitative evidence. *PLoS One*, 15(7), e0235959.
- [24] Kyari, G. V., & Ayodele, J. (2014). The socio-economic effect of early marriage in North Western Nigeria. *Mediterranean Journal of Social Sciences*, 5(14), 582-582.
- [25] Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*: sage.

- [26] Lloyd, C. B., & Mensch, B. (2006). Marriage and childbirth as factors in school exit: an analysis of DHS data from sub-Saharan Africa.
- [27] Lloyd, C. B., & Mensch, B. S. (2008). Marriage and childbirth as factors in dropping out from school: an analysis of DHS data from sub-Saharan Africa. *Population studies*, 62(1), 1-13.
- [28] Melesse, D. Y., Cane, R. M., Mangombe, A., Ijadunola, M. Y., Manu, A., Bamgboye, E., . . . Boerma, T. (2021). Inequalities in early marriage, childbearing and sexual debut among adolescents in sub-Saharan Africa. *Reproductive health*, 18(1), 117. doi:10.1186/s12978-021-01125-8
- [29] Oladejo, O. D. (2020). A Reproductive Justice Approach to Understanding Yoruba Women's Experiences with Early Marriage and Bride Price in Nigeria.
- [30] Omoeva, C., & Hatch, R. (2020). Teenaged, married, and out of school: Effects of early marriage and childbirth on school exit in Eastern Africa. *Prospects*, 1-26.
- [31] Paul, P., & Mondal, D. (2021). Child marriage in India: A human rights violation during the COVID-19 pandemic. *Asia Pacific Journal of Public Health*, 33(1), 162-163.
- [32] Raj, A., & Boehmer, U. (2013). Girl child marriage and its association with national rates of HIV, maternal health, and infant mortality across 97 countries. *Violence against women*, 19(4), 536-551.
- [33] Raj, A., Saggurti, N., Balaiah, D., & Silverman, J. G. (2009). Prevalence of child marriage and its effect on fertility and fertility-control outcomes of young women in India: a cross-sectional, observational study. *The Lancet*, 373(9678), 1883-1889.
- [34] Raj, A., Saggurti, N., Lawrence, D., Balaiah, D., & Silverman, J. G. (2010). Association between adolescent marriage and marital violence among young adult women in India. *International Journal of Gynecology & Obstetrics*, 110(1), 35-39.
- [35] Harahap, A. P. Hrp, N.K.A.R. Dewi, Macrozoobenthos diversity as an bioindicator of the water quality in the River Kualuh Labuhanbatu Utara, *International Journal of Scientific & Technology Research*, 9(4), 2020, pp. 179-183.
- [36] Raj, A., Salazar, M., Jackson, E. C., Wyss, N., McClendon, K. A., Khanna, A., . . . McDougal, L. (2019). Students and brides: a qualitative analysis of the relationship between girls' education and early marriage in Ethiopia and India. *BMC Public Health*, 19(1), 19. doi:10.1186/s12889-018-6340-6
- [37] Schaffnit, S. B., Urassa, M., & Lawson, D. W. (2019). "Child marriage" in context: exploring local attitudes towards early marriage in rural Tanzania. *Sexual and reproductive health matters*, 27(1), 93-105.
- [38] Stark, L. (2018). Early marriage and cultural constructions of adulthood in two slums in Dar es Salaam. *Culture, Health & Sexuality*, 20(8), 888-901.
- [39] Talukder, A., Hasan, M. M., Razu, S. R., & Hossain, Z. (2020). Early marriage in Bangladesh: a cross-sectional study exploring the associated factors. *Journal of international women's studies.*, 21(1), 68-78.
- [40] UNFPA. (2018). World Population Dashboard. Retrieved from <https://www.unfpa.org/data/world-population-dashboard>
- [41] UNICEF. (2020). Child marriage. Retrieved from https://www.unicef.org/topics/child-marriage?items_per_page=25&page=3
- [42] UNICEF. (2021). Child marriage is a violation of human rights, but is all too common. from UNICEF <https://data.unicef.org/topic/child-protection/child-marriage/>
- [43] World Bank. (2017). *The World Bank Annual Report 2017*. Retrieved from Washington DC:
- [44] World Bank. (2020). Poverty & Equity Brief: Sub-Saharan Africa.