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Review of Fertility Theories for a Holistic Approach to Adolescent Sexual and Reproductive Health and Rights in Côte d'Ivoire

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Abstract

PASSERELLE is one response to the precarious situation of sexual and reproductive health in the West African region, where indicators of women's and girls' health are still very low. The purpose of this review of the literature is to provide an overview of theoretical research in order to determine how the subject is dealt with in empirical and theoretical research. What are the theoretical perspectives for future research? In order to better orient and deepen action research and act effectively in the field to contain the phenomenon. Medline, Embase, PsycINFO, CINAHL; Web of Sci; Scopus ERIC and Google Scholar are the search engines consulted. Articles were selected according to inclusion criteria defined by the research team. A grid was used to extract the data. Reading notes were then drawn up for all the texts selected for this study. Several theories and concepts have succeeded one another to understand and explain phenomena related to the sexual and reproductive health of populations, in particular those of young people and adolescents. From the Malthusian theory of demographic regulation to sociological approaches to demographic issues. All these phenomena need to be approached from a multi-faceted perspective. All of these phenomena must be approached from a pluralistic perspective. Socio-anthropological analyses that emphasize the social environment and the participation of all actors are recommended for a deeper understanding of issues related to sexual and reproductive health. Such approaches involve the interaction and interconnection of all elements to foster community responsibility and autonomy, ultimately contributing to sustainable human development.

Keywords

Law, Sexual and Reproductive Health, Socio-Cultural Approach, Côte d'Ivoire, Fertility, Adolescents

1. Introduction

The Maputo Protocol, much like the Cairo Conference of 1994, advocates for the sexual and reproductive health and rights of women and adolescent girls (African Union, 2016). In line with this vision of improving the health of women and adolescents, World University Service of Canada (WUSC) launched a new project in Côte d'Ivoire in 2022: The Projet d'Appui à la Santé Sexuelle et Reproductive pour Elles en Côte d'Ivoire (PASSERELLE). This initiative aims to reduce social, cultural, and structural barriers that limit access to, and informed decision-making regarding, sexual and reproductive health services (SRH) among diverse groups of vulnerable and marginalized adolescent girls (ages 10 - 19) in the Bas-Sassandra district of Côte d'Ivoire.

Recognizing the importance of evidence-based interventions, project stakeholders collectively agreed on the necessity of conducting action research to identify and disseminate best practices related to adolescent sexual and reproductive health and rights (ASRHR). In this context, an action research initiative was undertaken to explore the persisting factors behind school-related pregnancies in the Bas-Sassandra region. PASSERELLE represents a response to the precarious state of sexual and reproductive health in West Africa, where indicators for women's and girls' health remain alarmingly low. Adolescent pregnancy remains one of the leading causes of maternal and infant mortality and perpetuates the cycle of poor health and poverty (OMS, 2014).

In Côte d'Ivoire, adolescent girls in particular lack access to contraceptive methods, despite the fact that the majority are sexually active and have unmet needs for modern contraception (27%) (UNICEF & Pathfinder International, 2021). According to Demographic and Health Survey (DHS) data, 23% of girls aged 15 - 19 have already been pregnant. Every year, hundreds of young girls give birth before the age of 20 (EDS, 2012).

Since 2010, several projects have been implemented in the Bas-Sassandra region. However, the phenomenon of pregnancies during schooling persists. For instance, the National Human Rights Council (CNDH) recorded, in a 2022 press release, 3409 cases of pregnancies during the 2021-2022 school year in Côte d'Ivoire. This number increased by 5% in 2022-2023, with 3588 cases of pregnancies occurring during schooling. In the San-Pedro region alone, 131 cases of school-based pregnancies were reported (Conseils National Des droits de l'Homme, 2023). According to the CNDH, there were 4137 cases of pregnancies during schooling from September 2023 to May 2024. The Nawa region recorded the highest rate, with 409 cases of pregnancies in 2024 (Conseils National Des droits de l'Homme, 2023).

Thus, the main objective of this research is to gain a more comprehensive understanding of the phenomenon of pregnancies during schooling in order to better inform field interventions. To achieve the study's objectives, four data collection methods are prioritized, including a systematic review of the scientific literature. This literature review aims to provide an overview of existing research to

identify how this social phenomenon has been addressed in both empirical and theoretical studies. How do we plan to conduct our future research, and within which theoretical frameworks will it be situated? This approach will help better guide and deepen action research efforts and enable effective interventions on the ground to contain the phenomenon.

The holistic approach adopted in this study implies a comprehensive understanding of school-based adolescent pregnancies by engaging all sociological actors involved in the emergence of the phenomenon. It considers these dynamics within an interconnected socio-cultural system, taking into account local meanings and representations, and aligning with sustainable development perspectives.

Future interventions will draw on culturalist and socio-anthropological frameworks, focusing on the emic perspective—how individuals and groups interpret their own experiences with sexuality, reproduction, and motherhood. This lens enriches our understanding of cultural and social diversity by highlighting actors' internal viewpoints and symbolic systems.

Specifically, this approach encourages deeper exploration of the influence of women's associations on contraceptive uptake, peer dynamics in shaping risky behaviors, and the role of parents and educators in adolescent sexual education. Adopting such a holistic lens enables a fuller grasp of the phenomenon of adolescent pregnancy within the schooling context.

Thus, for this literature review, we reflected on reproductive health approaches. We then presented various fertility theories that served as the analytical framework for studying pregnancies during schooling. Finally, we reviewed literature related to early pregnancies and those occurring within the school environment. Our work drew upon both theoretical and empirical texts, as well as grey literature in the field of reproductive health.

2. Methodology

This study employed a rigorous systematic literature review to gather and analyze theoretical and empirical works related to fertility and adolescent reproductive health in sub-Saharan Africa, with a particular focus on Côte d'Ivoire.

Multiple academic databases were systematically searched, including Medline, Embase, PsycINFO, CINAHL, Web of Science, Scopus, ERIC, and Google Scholar. To ensure comprehensive coverage, a snowball sampling method was used to identify additional relevant sources from the reference lists of key articles. Local data sources such as activity reports, working documents, and newspaper articles were also collected to complement the academic literature and provide contextual insights.

The search strategy involved a carefully constructed set of keywords and Boolean search strings. Primary keywords included "fertility theories," "adolescent pregnancy," "contraception," "family planning," "unintended pregnancies," "early adolescent pregnancies," "pregnancies and schooling," "contraceptive practices," and "reproductive health." These were combined with geographic and so-

cio-cultural qualifiers such as "sub-Saharan Africa," "Côte d'Ivoire," and "cultural norms" to narrow the focus.

The initial search resulted in 87 documents. These were screened in a multi-step process: first by title and abstract to exclude irrelevant studies, then by full-text review to assess eligibility. The inclusion criteria required that documents be empirical or theoretical articles closely related to adolescent fertility and reproductive health. Both peer-reviewed publications and relevant grey literature were considered to capture a broad spectrum of perspectives. After screening, 36 documents were retained for detailed analysis.

A thematic framework guided the selection and organization of the literature, focusing on four major analytical categories: (i) reproductive health perspectives, (ii) Malthusian demographic regulation theory, (iii) intergenerational wealth flow theory, and (iv) sociological and diffusionist models. Using these themes, key authors and seminal works were identified to build a coherent analytical foundation.

To enhance the rigor of data handling, a structured extraction grid was designed. This grid captured information on the theoretical models discussed, geographical scope, research methodologies employed, relevance to adolescent reproductive health, and socio-cultural factors addressed. This systematic extraction enabled comparative analysis and synthesis of diverse perspectives. Priority was given to comprehensive review documents such as Demography: Analysis and Synthesis (2006, vol. 7) edited by Graziella Caselli et al., which offer in-depth discussions of fertility, health, and demographic policies pertinent to sub-Saharan African contexts.

Finally, detailed reading notes were compiled for all selected documents, facilitating critical reflection and integration of findings into the broader theoretical framework of the study.

3. Fertility Theories and Approaches to Reproductive Health

The occurrence of unintended pregnancies among adolescents, particularly those still in school, constitutes a public health issue. Moreover, it is partly linked to adolescents' attitudes, knowledge, and practices, as well as their sociocultural perceptions regarding modern contraceptive methods (Kouadio, 2014).

We specify here that fertility analysis frameworks have been used as an analytical basis for contraceptive method use. They have also served as a framework for analyzing pregnancies occurring during schooling in our work. Thus, we believe it is necessary to review reproductive health approaches and fertility theories, and by extension contraceptive practices, in order to highlight the perspectives that have inspired research and actions related to pregnancies during schooling in Africa, Côte d'Ivoire, and the Bas-Sassandra region.

3.1. Revisiting the Concept of Reproductive Health: From Cairo to Maputo

"Reproductive health" is not considered solely as the absence of disease or disor-

der in the reproductive process, but rather as a condition in which this process is carried out in a state of complete physical, mental, and social well-being. This implies that individuals have the ability to reproduce, that women can carry their pregnancies to term and give birth safely, and that reproduction results in a positive outcome (Bonnet & Guillaume, 1999: p. 5).

Indeed, the concept of "reproductive health" refers to the maintenance of health, health promotion, and healthcare management of everything related to reproduction. However, it truly took shape at the International Conference on Population and Development (ICPD) in Cairo in 1994. Whether in Cairo or Maputo, the goal is to improve women's reproductive health and guarantee their fundamental rights to health and well-being. These areas encompass actions such as access to sexual and reproductive health services, family planning and contraceptive services, sexual education and reproductive health information, maternal and child health, management of unwanted pregnancies, prevention and treatment of sexually transmitted infections, sexual and reproductive rights of women, and youth participation in reproductive health decision-making (Anoh, 2001).

However, in practice, the concept of reproductive health care, clearly defined at Cairo in 1994, encompasses the following interventions: family planning, safe motherhood, and sexual health (Kouadio, 2014). Reproductive rights aim to establish the legal framework for reproductive health. This means protecting and promoting the rights of individuals, particularly the right to reproductive health and healthcare services (Kouadio, 2014). These rights, on one hand, grant all individuals of reproductive age access to all reproductive health services as part of the universal human right to health. On the other hand, they enable individuals to make decisions freely, without violence or coercion, regarding their reproductive lives.

Reproductive rights are linked to other rights such as the right to education, the right to equal status within the family, and the right not to marry before being physically and psychologically ready for marriage (Gautier, 2000).

Women's empowerment refers to the improvement of women's status. Its goal is to ensure equal rights between men and women and to increase women's decision-making power within the family. Women's empowerment is an aspect considered in gender analysis, which originally focused on discrimination between sexes, having no biological basis but rooted in sociocultural norms (Kouadio, 2014).

It is important to note that there has been a significant evolution in the field of reproductive health between the Cairo Conference in 1994 and the Maputo meeting in 2016. Increasingly, reproductive health is being approached from a holistic perspective. It places a strong focus on adolescents and youth, includes the participation of men, and emphasizes rights and gender equality.

The present research on pregnancies occurring during schooling lies at the intersection of multiple domains, including family planning, reproductive rights, and women's status. These interconnected fields have given rise to several theories

aimed at explaining varying levels of fertility across populations.

In the following sections, we will outline some of the key explanatory theories of fertility. These include:

- Thomas Robert Malthus's Theory,
- The Economic Theory of the Family,
- Culturalist Theories,
- Diffusionist and Sociological Explanations of Human Fertility.

These theoretical frameworks have been selected due to their relevance in understanding both contraceptive practices and the persistence of school-related adolescent pregnancies. Their analytical perspectives provide insight into the sociocultural, economic, and structural factors that influence reproductive behavior among adolescents, particularly those still enrolled in formal education systems.

3.2. Theories of Fertility

3.2.1. Malthusian Theory of Population Regulation

The strong and positive correlation between fertility control and the social and economic development of populations has long justified efforts to improve family planning policies. Drawing on the doctrine of Thomas Robert Malthus (1766-1834), population policies have increasingly been positioned as a key component of sustainable human development.

As early as 1798, in his seminal work An Essay on the Principle of Population, Malthus argued that thinkers such as Godwin, Condorcet, and other egalitarians or proto socialists were mistaken in their understanding of the root causes of poverty and the means to alleviate or eliminate it. His theory posited that population growth would inevitably outpace food production, leading to widespread scarcity and social hardship unless natural or preventive checks, such as delayed marriage and moral restraint, were implemented.

Rejecting the theories of his predecessors, Malthus developed his own theory of human misery based on what his followers would later call a "natural and universal law"—the principle of population. This principle asserts that:

> The tendency of living species to multiply constantly exceeds the Earth's capacity to produce the necessary means of subsistence to support such growth. The human species, like animal species, is subject—by divine will—to a tension between two forces: the instinct for reproduction, which is naturally strong, rapid, and careless, and the inherent incapacity of nature to increase food supply at the same accelerating pace. As a result, the growth of the food supply sets the limits for population growth. (Vilquin, 2006: p. 32).

According to Malthus, the reduction of misery therefore required the elimination of surplus individuals—those for whom the Earth, seen as a finite resource, could not provide. Consequently, phenomena such as famine, epidemics, malnutrition, unsanitary living conditions, and unemployment are seen as natural checks—leading to premature death and reinforcing the cycle of poverty.

The first aspect of Malthus's thesis concerns the origin of human misery. Ac-

cording to him, thanks to his ability to evaluate both his present condition and prospects, man possesses resources beyond those of nature's deterministic mechanisms. Rather than passively succumbing to nature's destructive strategy, he is capable of taking his life into his own hands by adopting a more humane and preventive approach.

This line of reasoning invites societies to adopt mechanisms of control aimed at avoiding the emergence of surplus individuals—those doomed to premature death due to a lack of subsistence. Guided by this logic, voluntary control of reproduction—or birth planning—emerges as a key strategy for sustainable human development.

Thus, inspired by Malthus's theory, large-scale population and development programs have been designed with a central objective: to contain population growth. Most national and international plans are based on the premise that stabilizing the population is an essential prerequisite for achieving sustainable human development. As cited by Véron (2006), the Government of India's Planning Commission stated that "population stabilization is an essential prerequisite for development".

Furthermore, in the early 2000s, demographic estimates indicated that 60% of population growth could be attributed to the size of the reproductive-age population. An additional 20% was linked to higher-than-desired fertility rates, largely due to unmet needs for modern contraception. The remaining 20% was attributed to desired fertility levels, influenced by high infant mortality rates or other socioeconomic factors (Véron, 2006).

Consequently, the development of population policies that consider factors contributing to rapid population growth is ultimately synonymous with a broader strategy for social and economic development. For instance, legislative measures regarding the legal age of marriage and educational progress have been associated with declining mortality and fertility rates. Long-term population stabilization is often linked to socioeconomic objectives such as free and compulsory education or universal childhood vaccination (Kouadio, 2014).

Moreover, a holistic approach to population policy necessitates the improvement of women's status. Under such conditions, women become active agents in controlling their own fertility—a controlled fertility that liberates them from the burden of repeated childbirth. In addition, managing extremely high population densities presents significant challenges for both development and environmental sustainability. Indeed, fertility control holds within it the potential seeds of economic and social development.

In sum, Malthus' theory, within the framework of the present study, provides a basis for establishing a link between the precarious social, economic, and health environment of adolescent girls and their tendency toward early childbearing.

Malthus' theory is further supported and reinforced by the economic theory of the family, which encourages couples or individuals to make rational economic choices—favoring the acquisition of goods that enhance quality of life and pro-

mote social mobility for the parents—over the decision to have multiple children.

3.2.2. The Economic Theory of the Family

In fertility-related research focusing on economic aspects, the economic theory of the family is frequently employed. It draws from the neoclassical theory of consumer behavior under conditions of scarcity (Pareto, 1909), which posits that consumers behave rationally when faced with limited resources. In other words, they make informed decisions based on a set of criteria, such as demand, price, income, and quality. By analogy, the microeconomic theory of the family likens children to a specific type of good. Consequently, the decision regarding the number of children is made according to a set of economic calculations. Over time, the economic theory of the family has developed into two major sub-schools: the Chicago School and the Pennsylvania School.

The Chicago School is based on the premise that a decline in fertility is associated with a reduction in the demand for children, which in turn leads to increased demand for family planning. These dynamics are closely linked to structural and attitudinal changes within populations. According to this school, children are valued more in terms of quality than quantity. Thus, the number of children a family chooses is influenced by household income (Becker & Lewis, 1973).

The Pennsylvania School, as a complement to the Chicago School, emphasizes the economic value of the time devoted to child-rearing. This value is measured by the potential wage the mother could earn if she were engaged in paid employment rather than caring for her children (Loriaux, 1984).

As such, the increase in the economic value of time is directly linked to the mother's level of education. Higher education levels correspond to a higher opportunity cost of time spent on childcare. It follows that the expenditures on goods and services required to raise children are also influenced by parental education. Ultimately, a higher level of education leads to a decreased demand for children.

The examination of the preceding arguments reveals that the cost and perceived value of children have increased, prompting parents to reduce their demand for children. Instead, they tend to substitute children with other goods—such as healthcare, education, leisure, and vocational training—available in the social and economic marketplace, which contribute to enhancing the quality of the offspring. As with Malthusian theory, the economic theory of the family, in this study, highlights the connections between social conditions—such as education level, age, income, and marital status—and fertility behavior.

However, it is important to note that this economic model gives limited consideration to the cultural, social, and psychological dimensions of fertility, even though these factors can significantly influence the nature, specificity, and evolution of fertility—especially in African contexts.

Culturalist theories argue that the social, cultural, and geographical environment in which communities live plays a fundamental role in shaping their fertility behavior. In this regard, the culturalist theory developed by Caldwell emphasizes that the direction of wealth flows in pre-transitional societies encourages high fer-

tility, particularly among older generations. From this view emerged his well-known theory of intergenerational wealth flows, which posits that fertility decisions are influenced by the perceived benefits of children in terms of economic and social returns within a given cultural system.

3.2.3. The Theory of Intergenerational Wealth Flows

The Theory of Intergenerational Wealth Flows proposed by Caldwell (1982) represents an epistemological break from the classical theory of fertility transition. It incorporates the socioeconomic and cultural characteristics of Sub-Saharan African societies into fertility analysis.

Based on his research in Nigerian society, Caldwell introduced the concept of culture through social organization into fertility studies. He emphasized the unique social and economic structures of African societies and how these influence fertility patterns. Specifically, he noted that in many African contexts, social and economic organization prioritizes the interests of the group over those of the individual. As a result, these structures do not foster strong bonds between spouses within marriage (Kouadio, 2014).

Moreover, whether in polygamous or monogamous unions, conjugal solidarity—especially communication within the couple—is often limited, and biological children are not necessarily the central concern of parents. Caldwell observed that the responsibilities related to child upbringing, including medical and psychological care, are commonly shared among extended family members. The socialization of children is often managed collectively, for instance, through the widespread practice of child fostering, where children are entrusted to a close relative, friend, guardian, or member of the extended family. This practice is sometimes viewed as a protective social system and an expression of family solidarity (Vandermeersch, 2002).

Culturalist theories, therefore, offer an analytical framework for understanding the persistence of high fertility in certain contexts.

Moreover, the perceptions, representations, and roles attributed to children in African societies justify high fertility rates. Large family sizes are also supported by a fertility logic that assigns to women the role of ensuring the continuity of the family lineage, as well as the production of human wealth and resources.

Indeed, for many Africans, the child is perceived as a divinely powerful being, a savior. In myths, saviors often appear in the form of child gods (Erny, 1990). It is through symbols and images that rural populations represent the child. It is within this context that the place of the child must be understood, particularly through the role they play within the community. A high number of children is considered a gift from heaven, ensuring the continuity of the family group in African conceptions (Kouadio, 2014). This also responds to the security concerns of parents who seek diverse forms of support in their old age.

High fertility rates are also encouraged by several religions. For example, a prescription from the Sunna states: "Marry as much as you want, procreate; on the Day of Judgment, I will be proud of you among other nations" (Zerdoumi, 1970).

However, the contact between pronatalist and antinatalist societies has generated a certain conflict between the desire to accumulate wealth and the wish to have a large family in urban settings. Nevertheless, according to Maistriaux (1964), the desire to become a mother of many children takes precedence over all other considerations.

The content of the culturalist theories supported by Caldwell indicates that the key to fertility change lies in the reversal of the direction of wealth flows between children and parents, or between younger and older generations. In pre-transition societies, the flow of wealth (material goods, services, assistance at all levels) favors the older generations, granting them economic and social advantages. This dynamic increases the value of children and justifies the preference for high fertility rates in Sub-Saharan Africa.

According to Caldwell, fertility decline presupposes the establishment of the Western conception of the family, where obligations between members of the conjugal nucleus are prioritized. This contrasts with extended families, where the interest of the group predominates over that of individuals.

In light of the culturalist theory, we will analyze the impact of cultural value systems related to procreation on the use of contraceptive practices and pregnancies during schooling.

Although the theory of intergenerational wealth flows and culturalist approaches represent a breakthrough in classical fertility analyses, they overlook some recent factors contributing to fertility decline. These include education, mass media, and place of residence, which have so far been considered key drivers of behavior change in favor of family planning and consequently reducing unintended pregnancies. Caldwell also neglected the effect of contacts between individuals, between social groups, and even between civilizations, which can lead one group to adopt cultural traits from another. Diffusionism, for its part, attempts to provide answers regarding the interaction of social groups in shaping reproductive behavior.

3.2.4. Sociological Theories and the Diffusionist Model

Sociologists have also developed theories to explain demographic phenomena. They focused on the benefits of population growth, emphasizing its impact on the processes of civilization, intellectual, economic, and social progress (Vilquin, 2006). For Émile Durkheim (1883), among others, demographic density is a key driver of progress because it enables the division of labor. Vilquin (2006) for his part, argued that increasing population density intensifies individuals' activities across all domains by enhancing their interactions. He also believed that a growing population fosters optimism.

Moreover, as Vilquin points out, sociologists have been concerned with explaining fertility decline in industrialized countries. Their numerous and varied theories involve factors such as increasing industrialization driven by rising living standards, women's economic activity, urbanization, and more (Vilquin, 2006: p. 41).

Arsène Dumont (1890) also contributed to reflections on demographic growth through his theory of "social capillarity." According to him, the limitation of births among humans is partly explained by their desire for social mobility. Drawing on the economic theory of the family, he proposed that, faced with fertility as a specific good requiring costly investment, individuals must make rational choices. Thus, the desire to secure a better social position for their children leads parents to invest more in education rather than in the number of offspring.

Sociologists have aligned themselves with the two major schools developed by the diffusionist model to understand and explain phenomena related to various domains of reproductive health. What, then, of the diffusionist approach to reproductive health?

The diffusionist approach emphasizes the spread of social values related to observed changes in reproductive behavior within human societies. In this framework, fertility decline is supported by the dissemination of information about various birth control methods. The role of opinion leaders, social networks, and spousal communication in circulating values and norms concerning family formation is highlighted. Diffusion is understood as a process through which innovations linked to reproductive behaviors emerge and spread across regions or social communities, independently of socioeconomic conditions.

The concept of social interaction has increasingly become the central theme of diffusionist explanations in the field of fertility. It suggests that social interactions among individuals help convey family models modeled on the nuclear family, prevalent in Western societies. These interpersonal social relations are more effective when occurring within the same linguistic area.

Consequently, social networks, particularly among women, play a significant role in the dissemination of information related to family planning and contraceptive use. Hammerslough & Curtis (1995) highlights that women's associations in rural areas facilitate the circulation of information on contraceptive practices. These female associations provide a conducive environment for exchanges and discussions about child-rearing, work, and birth control. Such interactions may help reduce the psychological costs (stigma) associated with adopting new behaviors related to contraceptive use.

This approach was further developed by Bongaarts and Watkins (1996), who also emphasize the concept of social interaction. In their research, the key dimensions of social interaction include the exchange of information and ideas concerning the advantages and disadvantages related to family size, various birth control techniques, the evaluation and interpretation of information that can lead to modifications in fertility norms, and social influence.

They argue in their analysis that the economic and social development of countries is the driving force behind the reduction in demand for children. It multiplies the channels of social interaction and enables many people to become informed about the advantages and disadvantages related to family size or birth control methods. Due to social interaction, the behaviors of social groups that are more advanced in fertility control within a given society can spread throughout the en-

tire community.

Because of social interaction, changes related to fertility evolution originate in one society and spread to others. Within this framework, fertility decline involves a modification of cultural beliefs and moral values (Hammel, 1990). Fertility variation is closely linked to cultural factors and depends more on indicators of social progress (such as education level and place of residence) than on economic indicators (such as family income or purchasing power).

The review of the literature on fertility and individuals' use of modern contraceptive methods reveals that most research and programs are designed from a causal perspective, increasingly oriented towards the provision of family planning services. It is within this scientific knowledge framework that schools of thought explaining the determinants of fertility decline in developing societies have emerged. The first two schools support different but complementary theses. A third school has since emerged to reconcile the two and apprehend the phenomenon in its entirety.

The authors of the first school argue that the level of economic development and the improvement of living standards lead to behavioral changes favorable to the use of contraceptives, resulting in a decreased demand for children. A positive correlation is established between fertility decline and the improvement of population living conditions (Ngueyap, 2000).

All these changes in contraceptive behaviors must occur within a broader context of economic, social, and cultural transformation. This is why some authors maintain that the precarious living conditions of populations represent an obstacle both to economic and social development and to the emergence of new fertility behaviors (Livenais, 1994; Locoh, 1991, 1989). In the same vein, Guiella and Poirier (2000) consider that the precarious and difficult socioeconomic situation of African populations is a major cause of high fertility in these societies. The ongoing changes in Sub-Saharan African societies, including the weakening of norms and values such as extended family structures, attachment to lineage, and shared responsibilities, could influence demographic regimes, potentially initiating a fertility transition.

Supporters go further by arguing that the decline in fertility, manifested by a reduced demand for children, is not necessarily linked to the effects of family planning programs. What could ultimately determine the fertility decline in Africa is social progress and the level of development of the countries? Along the same lines, Delaunay and Becker (2000) assert that the fertility decline observed in major African cities is driven by delayed marriage and especially by the schooling of young girls. Indeed, schooling and delayed marriage are indicators of social progress experienced by some populations in Sub-Saharan African countries. Cultural changes regarding marriage among women make them more autonomous and responsible for their reproduction. Women who have become economically independent through education and urbanization are characterized by delayed marriage and a reduced demand for children (Ngondo & Pitshandenge, 1994).

Within this same school of thought, theories emphasizing the "micro" aspect of the family have developed. According to this theory, there can be no fertility decline in Africa without the nuclearization of the family, which results from socio-economic and socio-cultural transformations occurring within traditional societies (Caldwell & Cadwell, 1987). Ultimately, in the economic model of the family, the child becomes an economic good whose acquisition involves a series of economic calculations, dependent on the financial capacity of the parents.

Here, fertility decline is conditioned by a reduction in the demand for children. From now on, parents will choose their family size rationally, based on current socio-economic constraints.

Within this school, culturalist theories are also employed to identify the factors sustaining high fertility. These factors are mostly related to socio-economic and socio-cultural aspects that increase the value of children and consequently either decrease or increase the demand for family planning.

Within this broader school of thought, one can note the contribution of the "poverty-induced Malthusianism," which opposes the fundamental principles of fertility decline. It posits that fertility decreases under the influence of a Malthusianism induced by the precarious living conditions of populations and an abundant supply of contraceptive methods (Cosio-Zavala, 1995).

In contrast to this first school, a second has emerged, wherein scholars argue that the decline in fertility in sub-Saharan Africa is strongly linked to the impact of family planning programs (Cosio-Zavala, 1995; Vimard & Guillaume, 1994). They point out that the significant fertility reduction observed over the past decade stems from various factors, the most critical being the relatively effective implementation of family planning programs.

In the same line of thought, Sy Ndiaye (1994) examines the potential influence of population policies on fertility. His study falls within the framework of socio-demographic programs that can lead to fertility decline in sub-Saharan Africa. Family planning programs respond to the latent needs and aspirations of populations regarding birth regulation.

This trend aligns with the diffusionist approach, which emphasizes that innovations can spread across societies independently of individuals' socioeconomic conditions. It is based on the concept of social interaction developed by Bongaarts and Watkins (1996).

Following these two initial schools of thought, a third emerges, offering a reconciliatory perspective that adopts an intermediate position. The authors of this school acknowledge that both socioeconomic changes and family planning programs play complementary roles in the decline of fertility. Fertility decreases under the combined influence of individuals' socioeconomic transformations and the structure and implementation of family planning programs (Bongaarts, 1993).

Studies within this framework emphasize both the quality of the supply of family planning services and the demand among populations for fertility control.

Diffusionism and sociological theories in this study make it possible to address various areas of reproductive health. These include the influence of women's as-

sociations on the use of contraceptive methods, the impact of peer groups on the adoption of risky behaviors, the role of parents and educators in adolescents' sexual education, and behavior change, among others.

As part of its activities, WUSC organized in July 2024 a series of co-developed workshops on positive parenting practices and positive masculinity, targeting adolescents, parents, and community leaders, with a strong emphasis on gender sensitivity. Drawing on the diffusionist model, this approach aims to foster the transmission of more equitable social norms through key influencers within the community. By promoting a culture of positive masculinity and balanced power relations within households and community spaces, these interventions support gradual social norm change in favor of sexual and reproductive health and rights (SRHR). They enable participants to integrate new values—such as improved parent-child communication and more egalitarian couple dynamics—into their daily practices, through a process rooted in existing social networks. This perspective requires a comprehensive understanding of the phenomenon of pregnancies occurring during schooling.

However, recent studies suggest that these classical models—while foundational—require recontextualization to fully capture the complexity of adolescent fertility in sub-Saharan Africa. Recent research has emphasized the need to adapt these frameworks to contemporary realities shaped by evolving gender norms, institutional shifts, and socio-cultural dynamics.

Schoumaker (2019) highlights that fertility transitions in the region have experienced notable stagnations, which cannot be explained solely by economic or demographic variables. These stalls reflect deep-rooted social resistance linked to persistent gender norms, limited reproductive autonomy among youth, and uneven educational policies. Similarly, Dasgupta et al. (2022) demonstrate that the spread of contraceptive behaviors remains uneven and is strongly influenced by cultural, religious, and familial dynamics—challenging the linear assumptions of classical diffusionist models. In the specific domain of adolescent sexual and reproductive health, Chandra-Mouli et al. (2021) call for an integrated approach attentive to the social, anthropological, and institutional determinants that shape youth reproductive trajectories across African contexts. These recent contributions reinforce the idea that universalist interpretations of fertility theories are insufficient to fully grasp the complexity of the observed phenomena, thus underscoring the relevance of a holistic approach rooted in local socio-cultural configurations.

4. Conclusion

In response to the persistent issues related to adolescents' sexual and reproductive health and rights (SRHR) in Côte d'Ivoire, several interventions aimed at improving the health of young people and adolescents have been implemented in the Bas Sassandra region. It is within this context that the PASSERELLE project was initiated. Its goal was to reduce social, cultural, and structural barriers that hinder

access to, and informed decision-making about, sexual and reproductive health among youth.

Reproductive health is a dynamic and evolving field. It encompasses a broad range of areas essential to the social, economic, and health-related well-being of women and adolescents. Particular emphasis is placed on adolescent and youth sexual and reproductive health. Furthermore, the inclusion of men and the promotion of rights and gender equality are central to reproductive health interventions.

Within this domain, several theoretical frameworks have emerged to explain the varying levels of fertility. These include the theory of Thomas Robert Malthus, the economic theory of the family, culturalist theories, as well as diffusionist and sociological explanations related to human fertility.

However, school-based pregnancies continue to persist in the region. To achieve more effective outcomes on the ground, an action-research initiative was launched to investigate the root causes of these pregnancies. As part of this action-research, a scientific review of explanatory theories related to reproductive health was conducted to inform a holistic approach to field interventions. This process aims at reducing school-based pregnancies in the Bas Sassandra region by identifying the underlying resistance factors contributing to early pregnancies.

From the examination of these theories, it becomes clear that issues pertaining to rights, sexual and reproductive health must be understood through a pluralistic lens. This is essential for adopting a holistic approach to the critical issue of adolescent pregnancies in school settings. Approaching in-school pregnancy as a "total social phenomenon" offers a comprehensive understanding of its deeper social layers. This, in turn, facilitates engagement with the socio-anthropological dimensions that remain largely underexplored in most research addressing this complex issue.

Future research would benefit from adopting a socio-anthropological approach focused on the meanings individuals assign to motherhood, sexuality, and gender relations within specific cultural and social contexts. Using ethnographic methods—such as in-depth interviews, field observations, or life histories—would allow for a deeper understanding of the social logics, local kinship structures, gender norms, and rites of passage that shape adolescent reproductive behaviors.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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