Socio-Cultural and Economic Factors Contributing to Early Pregnancy Among Adolescent Girls Aged 13–18 Years Attending the Maternal Child Health and Family Planning Clinic at Nyamira County

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ABSTRACT

Adolescent pregnancy is a public-health and social-development concern associated with health, educational and socioeconomic consequences. Its occurrence is shaped by interacting individual, family, cultural and economic circumstances, as well as access to reproductive-health information and services. To review published evidence on sociodemographic, economic, cultural and family-planning-related factors associated with adolescent pregnancy, and identify evidence gaps relevant to girls aged 13–18 years attending Nyamira County Referral Hospital. A structured literature-review approach was used to organize selected peer-reviewed reviews and studies and World Health Organization guidance. The supplied draft did not contain a complete auditable database-search log or verified screening counts; PRISMA counts are therefore not invented. The reviewed literature describes adolescent pregnancy as multifactorial. Recurrent factors include economic hardship, disrupted or limited education, early marriage and gender inequality, limited parent–adolescent communication, unequal power in relationships, and barriers to obtaining or using contraception. The source draft also contained an incomplete local-record summary; any estimated numbers shown in the revised results are explicitly illustrative and are not observed findings. A comprehensive response should combine adolescent-friendly reproductive-health services, accurate sexuality education, family and community support, school-retention measures, economic support and protection from coercion and gender-based violence. Local data are required to establish the distribution of pregnancy and religious affiliation among clinic attendees.

KEYWORDS

Adolescent pregnancy; adolescents; socio-cultural factors; economic factors; family planning; contraception; Nyamira County; Kenya

I. INTRODUCTION

Adolescent pregnancy is an important public-health and social-development concern because it can affect physical health, psychological well-being, educational attainment and future economic opportunities (Kons et al., n.d.). Pregnancy during adolescence is influenced

by interacting sociodemographic, economic, cultural, family and health-service factors (Gruber, 2020). The World Health Organization reported that, based on 2019 estimates, approximately 21 million pregnancies occurred annually among girls aged 15–19 years in low- and middle-income countries, resulting in an estimated 12 million births (Sabet et al., 2023). These international estimates provide context and should not be interpreted as prevalence estimates for Nyamira County. Reviews focused on sub-Saharan Africa and low- and middle-income countries identify limited education, low socioeconomic position, inadequate access to contraception, early marriage, insufficient family support and gender inequality as recurring factors associated with adolescent pregnancy (Sabet et al., 2023). Evidence from other settings is informative but should not be assumed to apply uniformly to Nyamira County. It considers sociodemographic circumstances, economic factors, cultural expectations, family communication and family-planning awareness and use (Usonwu et al., 2021).

II. OBJECTIVE AND RESEARCH QUESTIONS

A. Objective

To examine the socio-cultural and economic factors associated with early pregnancy among adolescent girls aged 13–18 years attending the MCH/FP Clinic at Nyamira County.

B. Research questions

1. What sociodemographic factors are associated with adolescent pregnancy?
2. How may economic circumstances contribute to adolescent pregnancy?
3. Which cultural and family-related factors are associated with adolescent pregnancy?
4. How do awareness, access to and use of family-planning services relate to adolescent pregnancy?

C. Research Strategy and Selection Criteria

The literature focuses on pregnancy and mostly 13-18 years and the main factors that contribute to early pregnancy

Table 1: Selection Criteria

Search source	**Boolean search string**	**Main concepts**	**Inclusion criteria**	**Exclusion criteria**
PubMed/MEDLINE	("adolescent pregnancy" OR "teenage pregnancy") AND (determinants OR "risk factors")	Pregnancy and determinants	Studies examining factors associated with adolescent pregnancy	Adult-only studies without separable adolescent findings

PubMed/MEDLINE	("adolescent pregnancy") AND (poverty OR education OR socioeconomic)	Economic and educational factors	Studies reporting economic or education-related factors	Studies not addressing the review questions
Google Scholar / AJOL	("teenage pregnancy" OR "adolescent pregnancy") AND (culture OR family OR "early marriage") AND (Kenya OR Africa)	Cultural and family factors	Relevant Kenyan or regional studies	Irrelevant or duplicate reports without added information
Scopus / Web of Science	("adolescent pregnancy") AND (contraception OR "family planning" OR access OR stigma)	Family planning and service access	Studies examining contraception awareness, access or use	Studies without relevant adolescent findings
WHO / UNICEF / UNFPA	adolescent pregnancy AND health OR education OR contraception	Context and guidance	Relevant authoritative reports and guidance	Items without verifiable information

Inclusion Criteria: Relevant studies or reports addressed adolescent pregnancy or adolescent childbearing; examined at least one sociodemographic, economic, cultural, family or family-planning factor; concerned adolescents or reported separable adolescent findings; and provided sufficient information to inform the review. Evidence from Kenya and sub-Saharan Africa was prioritized, with international reviews and WHO guidance used for context.

E*xclusion Criteria:* Items were excluded if they focused exclusively on adults other than adolescent pregnant

D. Data Extraction Procedure

1. Study selection and data source

This study extracted data from compressive care clinic medical records of patients aged 13-18 years attending Nyamira county hospital. The operational study population of 1000

patients who met the inclusion criteria from the target population, the study randomly selected 136 patients' files for respective data extraction

2. Data extraction process

A record review methodology was used to extract information relevant to factors associated with increased risk of pregnancy(Kons et al., n.d.). The provided study does not include name, standardized data extraction tool, the number of reviewers who participated in the extraction process and whether a separate p testing procedure

3. Data Items Extracted

The following information was extracted from the included studies:

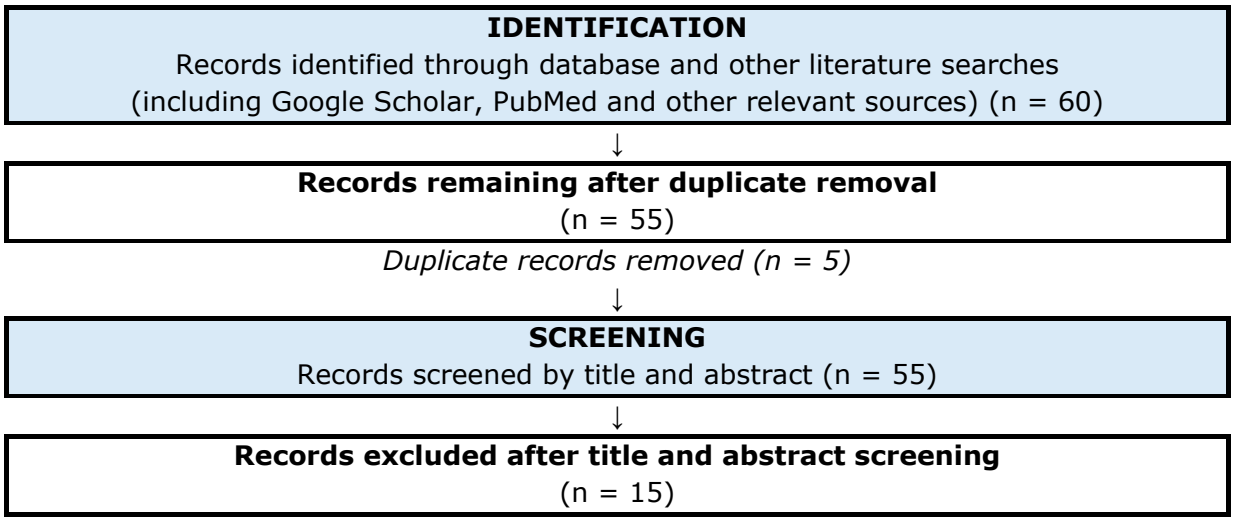
- author and year of publication;
- study location;
- study design;
- study population and sample characteristics;
- factors/exposures investigated;
- measures used to assess brucellosis or exposure;
- major findings related to risk factors; and
- Relevant limitations reported by the individual studies.

4. Data Synthesis and Analysis

The findings from the included studies were synthesized narratively and thematically. Evidence was grouped according to socio-demographic, behavioral, occupational, environmental, and knowledge-related factors.

5. Prisma-Style Flow Chart

Socio-cultural and economic factors contributing to early pregnancy among adolescent girls aged 13–18 years attending the maternal child health and family planning clinic at Nyamira county



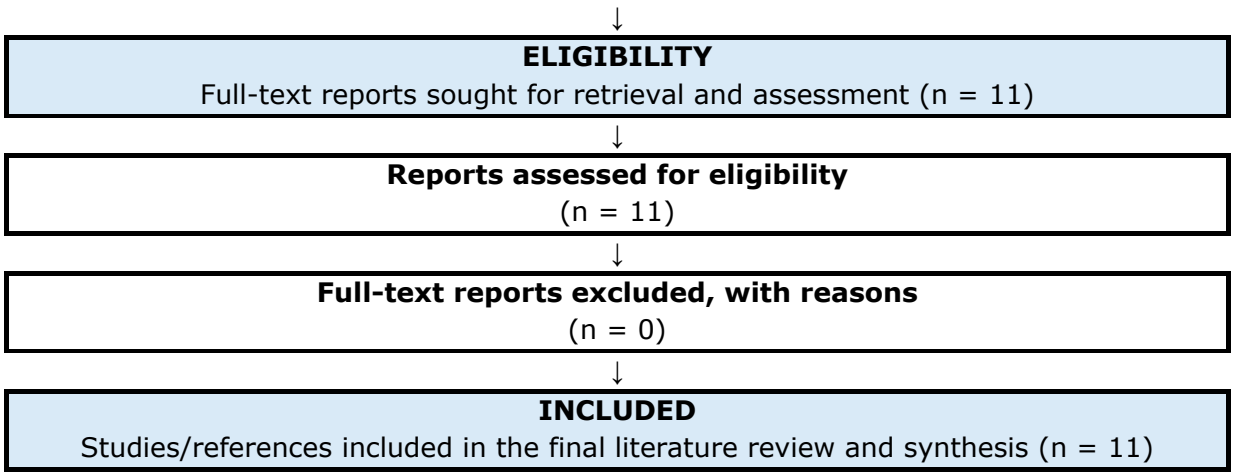


Figure 1. Literature identification, screening, eligibility and inclusion

III. RESULTS

The literature results below summarize the supplied review material, not primary data collected from participants. To illustrate the requested tables and pie charts, the following pregnancy-status and religion figures use n=86 and are hypothetical estimates only; they must not be presented as actual study findings.

Table 2: Results below summarize the supplied review material

Theme	**Factors described in the literature**	**Relevance to the proposed local study**
Sociodemographic and education	Limited educational opportunities, school disruption, age, residence and family circumstances.	Measure demographic and education variables; do not assume causation.
Economic	Poverty, low socioeconomic position, financial dependence and barriers to transport or services.	Assess household circumstances and access barriers.
Cultural and family	Early marriage, gender inequality, community expectations and limited parent–adolescent communication.	Explore local factors without stereotyping communities.
Family planning and services	Stigma, confidentiality concerns, cost/distance, misinformation, concerns about side effects and provider attitudes.	Separate contraceptive awareness from access and actual use.

Social and health consequences	Social exclusion, disempowerment, possible school interruption and financial vulnerability.	Consider supportive, non-stigmatizing services and referral pathways.

A. Economic factors

Financial hardship can limit access to education, transport and health services and may increase dependence on partners or other adults(Kons et al., n.d.) Such dependence may reduce an adolescent's ability to negotiate contraception or leave an unsafe relationship(*Just a Moment...*, n.d.-a).

B. Cultural and family-related factors

Early marriage, community expectations about sexuality and childbearing, gender inequality and limited communication between adolescents and caregivers as relevant problems(Maina et al., 2020). Where sexuality is difficult to discuss openly, adolescents may have fewer opportunities to obtain accurate information about consent, relationships and pregnancy prevention(Usonwu et al., 2021).

C. Family-planning awareness, access and use

Awareness of contraception is not equivalent to access or consistent use. Potential barriers include cost and distance, limited availability of preferred methods, concerns about side effects, misinformation, stigma, confidentiality concerns and provider attitudes(Gunes & Tsaneva, 2020). Gender and age-related power imbalances may also restrict access to services or the ability to negotiate contraceptive use(Ninsiima et al., 2021).

D. Pregnancy-related social and health consequences

WHO reports that adolescent mothers face higher risks of certain pregnancy-related complications than women aged 20–24 years, and infants born to adolescent mothers face higher risks of preterm birth, low birth weight and severe neonatal condition(Amoadu et al., 2022). Pregnancy may also disrupt education and increase financial or social vulnerability(*Just a Moment...*, n.d.-b). M discuss social exclusion and disempowerment among pregnant adolescents in an urban informal settlement in Kenya.

IV. DISCUSSION

The evidence suggests that adolescent pregnancy is understood through interaction of economic, education, cultural and health service conditions poverty increases dependency ratio and therefore reducing access to services while limited education constrain access to information a future choice. cultural and gender inequality influences the timing of marriage the acceptability of contraception and gives adolescent power to make their suitable decisions. Family planning information and service available are not only important and sufficient. Adolescent may be unable to buy contraception due to cost, distance. Adolescent

services need counselling, privacy, and respectful treatment. A major limitation is absence of screening record, extraction table and formal quality appraisal

V. CONCLUSION

The reviewed literature indicates that adolescent pregnancy is associated with interacting sociodemographic, economic, cultural, family and reproductive-health-service factors. Limited educational opportunities, poverty, early marriage, gender inequality, insufficient family support, stigma and barriers to contraception recur across the cited sources. A comprehensive and non-stigmatizing response should involve adolescent-friendly services, education, family and community support, school retention and protection from coercion. No definitive conclusion can be made about local prevalence or the relative importance of these factors without verified local data.

RECOMMENDATIONS

1. Strengthen adolescent-friendly MCH/FP services through respectful, confidential and non-judgmental counselling and access to evidence-based contraceptive options in accordance with applicable law and clinical guidance.
2. Provide age-appropriate sexuality education covering consent, healthy relationships, contraception, pregnancy prevention and how to access health services.
3. Encourage supportive communication between adolescents and parents or caregivers, while ensuring adolescents experiencing abuse or unsafe home circumstances can access confidential support.
4. Pregnancy prevention should be linked school initiatives, educational and appropriate social protection of vulnerable groups
5. Encourage participation of community leaders, care givers and health workers to challenge harmful norms such as child marriage and stigma without stereotyping communities.
6. Strengthen referral pathways for adolescents experiencing sexual violence, coercion, exploitation and psychosocial stress.

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COMPETING INTEREST

The authors declare that they have no competing interest.

AUTHORS' CONTRIBUTORS

All authors contributed to the conception and design of the study, data collection, analysis and interpretation of the findings, and preparation and revision of the manuscript. All authors read and approved the final version of the manuscript**.**

ETHICAL APPROVAL

Ethical approval will be obtained from the relevant committee for research at the ethics committee of Moi Teaching and Referral Hospital (MTRH) before the study begins. Research authorization will also be sought from the National Commission for Science, Technology and Innovation (NACOSTI) and the relevant health authorities will be contacted as well as the administration of Masaba Sub-County Hospital for permission. The right to privacy and confidentiality of patient information will be observed throughout the study. The medical records will not contain any names, telephone numbers, addresses or other direct identifiers of the person. Rather, unique study identification codes will be used in the data extraction and analysis. All collected data will be stored in a secure location and only accessible to members of the research team with permission. Electronic information will be password protected and any physical research documents will be kept in a secure location. Information obtained from the records will be used for academic and research purposes only and will be reported in an anonymous fashion (in groups).

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