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Socio-Demographic Factors Among Pregnant Teenage Girls Aged 13–19 Years: Evidence from Kimilili Sub County, Bungoma County, Kenya

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Abstract- ***Teenage pregnancy remains a pressing public health and social challenge in Western Kenya, with Bungoma County recording a prevalence of 19% against a national rate of 15%. Kimilili Sub County, identified as a teenage pregnancy hotspot within the county, has received no prior systematic empirical attention despite the scale of the problem. This paper presents findings on the first objective of a broader mixed-methods study: identifying the socio-demographic factors among pregnant teenage girls aged 13–19 years in Kimilili Sub County. A convergent parallel mixed-methods design was employed. Structured questionnaires were administered to 204 teenage participants (78.5% response rate), complemented by 18 in-depth interviews, six focus group discussions with 34 participants, and key informant interviews with community health volunteers, selected through stratified random and purposive sampling respectively. Quantitative data were analysed descriptively using SPSS version 26; qualitative data were analysed thematically following Braun and Clarke's (2006) six-phase procedure. Findings showed that pregnancy was concentrated among mid-adolescent girls aged 16–17 years (43.6%), most of whom had incomplete secondary education (35.3%) or lower, lived without both parents (74.5%), and resided in rural areas (69.6%). Four socio-demographic factors were examined using five-point Likert scales: age, educational attainment, family structure, and socio-economic status. All twenty Likert items returned mean scores within the agree range, with peer influence (M = 4.07), school retention as protective (M = 4.19), two-parent family structure as protective (M = 4.13), and poverty restricting access to contraception (M = 4.18) emerging as the most strongly endorsed items in each domain respectively. Qualitative accounts illustrated the specific mechanisms through which these factors operated: reproductive health ignorance rooted in abstinence-only instruction, peer conformity pressure, intergenerational power imbalances, supervisory gaps in non-intact households, and economic dependency on older male partners. The study concludes that socio-demographic vulnerability to teenage pregnancy in Kimilili Sub County is structurally produced through the interaction of these four factors rather than through any single cause, and recommends targeted school retention programmes, comprehensive reproductive health education, and family-strengthening interventions tailored to the sub-county's rural, low-income context.***

Keywords: ***Teenage Pregnancy; Socio-Demographic Factors; Adolescent Vulnerability; Kimilili Sub County***

I. INTRODUCTION

Adolescent pregnancy continues to represent one of the most consequential public health and social challenges facing low- and middle-income countries. The World Health Organization (2023) estimates that approximately 21 million girls aged 15–19 years become pregnant annually in developing regions, with outcomes that extend well beyond the immediate pregnancy to shape educational attainment, economic independence, and long-term wellbeing.

Across the literature, four socio-demographic factors recur with notable consistency as the primary determinants of this vulnerability: age, educational attainment, family structure, and socio-economic status (Kassa et al., 2018; Wado et al., 2019). Understanding how these factors operate, both independently and in combination, is essential to designing interventions capable of addressing teenage pregnancy at its structural roots rather than treating it as an individual failure of judgement.

The relationship between education and adolescent pregnancy is particularly well established and operates bidirectionally. The United Nations Population Fund (2022) demonstrated that lower educational attainment increases pregnancy risk by reducing access to reproductive health knowledge

and weakening the protective structure that school enrolment provides, while pregnancy in turn drives school dropout, trapping girls in self-reinforcing cycles of disadvantage.

In the United States, Manlove et al. (2019) found a complicating dimension to religiosity's protective role: higher religiosity predicted abstinence among adolescents but also reduced contraceptive use once sexual activity began, meaning that protective social structures could simultaneously delay risk exposure and heighten its consequences when delay failed.

Biggs et al. (2017) showed that socio-economic circumstances at the time of pregnancy strongly predicted resolution decisions, with poverty, housing instability, and educational disruption the most consistent predictors of adverse outcomes.

Across the African continent, socio-demographic vulnerability and adolescent pregnancy are tightly interwoven. Kassa et al. (2018), synthesising evidence from 52 studies across 24 African countries, reported a pooled adolescent pregnancy prevalence of 18.8%, with rural residence, limited schooling, and household poverty as the most consistent predictors of elevated rates.

Yakubu and Salisu (2018) identified early marriage and restricted educational access as additional structural drivers, observing that girls from poor households were disproportionately drawn into transactional sexual relationships with older men who offered basic material support in exchange for sexual access.

Alukagberie et al. (2023), focusing on Nigeria, confirmed that community-level poverty, constrained school access, and disrupted family structures operated as the dominant structural predictors, acting through both individual experience and community-wide deprivation rather than through isolated personal circumstances.

East African evidence sharpens this regional picture considerably. Wado et al. (2019) mapped teenage pregnancy across five countries, Kenya, Uganda, Tanzania, Ethiopia, and Mozambique, finding prevalence ranging from 18% in Kenya to 29% in Malawi and Zambia, with family structure standing out as a particularly strong predictor: girls in single-parent or guardian-headed households consistently recorded higher pregnancy rates, a pattern linked to reduced adult supervision and diminished access to reproductive health guidance.

Ochen et al. (2019) confirmed in Uganda that low educational attainment, poverty, peer influence, and parental absence constituted the four strongest independent predictors of pregnancy among girls aged 13–19 years.

Asmamaw et al. (2023), applying multilevel modelling to regional Demographic and Health Survey data, demonstrated that both individual educational status and community-level poverty independently predicted teenage pregnancy, underscoring the necessity of structural alongside individual-level interventions.

Kenya's own demographic data reveal stark internal disparities that national averages conceal. The Kenya Demographic and Health Survey (KNBS & ICF, 2023) reported that 15% of girls aged 15–19 years had begun childbearing nationally in 2022, but this figure masks extreme inequality: 21.1% prevalence among girls in the lowest wealth quintile compared with 7.1% in the highest, and approximately 40% prevalence among girls with no formal education compared with just 5% among those with post-secondary qualifications. Jakubowski et al.

(2025) brought the long-term consequences of these patterns into sharp focus in a study of Western Kenya, finding that teenage motherhood reduced the probability of completing primary education by 27.6 percentage points among girls with multiple adolescent births, a cycle of educational loss and poverty that persisted well into adulthood.

In Bungoma County specifically, Stats Kenya (2024) documented a teenage pregnancy prevalence of 19%, with the Kenya Human Rights Commission (2024) recording 7,270 cases between January and July 2023 alone, including 196 involving girls aged 10–14 years, evidence that the most severe burden in the county fell on its youngest, poorest, and least educated girls.

Despite this weight of evidence at global, African, East African, and Kenyan levels, Kimilili Sub County, identified by the Bungoma County Government (2021) as a teenage pregnancy hotspot within an already high-burden county, had received no systematic empirical attention prior to the present study.

No prior research had established a socio-demographic profile specific to pregnant teenage girls in this sub-county, nor examined how age, educational attainment, family structure, and socio-economic status interacted in this particular rural, predominantly Christian community to produce the elevated pregnancy rates documented at the county level.

This paper addresses that gap by reporting findings on the first specific objective of a broader study: identifying the socio-demographic factors among pregnant teenage girls aged 13–19 years in Kimilili Sub County.

II. STATEMENT OF THE PROBLEM

Bungoma County carries one of the heaviest teenage pregnancy burdens in Western Kenya. The Kenya Demographic and Health Survey (KNBS & ICF, 2023) placed the county's teenage pregnancy prevalence at 19% in 2022, well above the national rate of 15%, itself only a modest decline from 18% in 2014.

The adolescent birth rate in the county stood at approximately 73 births per 1,000 women aged 15–19 years, indicating that national progress on this indicator had largely bypassed the region. Between January and July 2023 alone, the Kenya Human Rights Commission (2024) recorded 7,270 teenage pregnancy cases in Bungoma County, including 196 involving girls as young as 10–14 years.

KDHS 2022 data revealed a stark socio-economic gradient underlying this burden: 21.1% of girls aged 15–19 years in the lowest wealth quintile had experienced pregnancy compared with 7.1% in the highest, and girls with no formal education were pregnant at a rate of 40% versus just 5% among those with post-secondary qualifications (KNBS & ICF, 2023).

The consequences of this problem extend well beyond the immediate event of pregnancy itself. Jakubowski et al. (2025) found that teenage mothers in Western Kenya, particularly those with more than one adolescent birth, reported significantly reduced socio-economic functioning, physical health, and psychological wellbeing well into adulthood; their study showed that teenage motherhood roughly halved a woman's probability of completing primary education and locked many into intergenerational cycles of poverty.

Across the African continent more broadly, Amoadu et al. (2022) documented that adolescent pregnancies carry elevated risks of anaemia, obstetric complications, unsafe abortion, and lasting psychological harm, consequences that compound rather than resolve the underlying socio-economic disadvantage that frequently preceded the pregnancy.

Kimilili Sub County sits within this high-burden context, yet despite being identified by the Bungoma County Government (2021) as a specific hotspot for teenage pregnancy, no empirical study had established a socio-demographic profile of the girls affected or examined how age, educational attainment, family structure, and socio-economic status interacted to produce this elevated vulnerability at the sub-county level.

County-level statistics document the scale of the problem but obscure the specific mechanisms operating within particular communities; interventions designed without this granular understanding risk addressing symptoms rather than the structural conditions that generate them. This represented a critical evidentiary gap.

Left unaddressed, the consequence is a continuation of programming based on national or county averages that may not reflect the particular configuration of risk factors operating in Kimilili Sub County, resulting in interventions that are poorly targeted and a continuing cycle of educational loss, economic disadvantage, and adverse health outcomes among the sub-county's adolescent girls. This study

addressed this gap by generating the first systematic socio-demographic evidence on pregnant teenage girls in Kimilili Sub County.

III. THEORETICAL FRAMEWORK

This study was anchored in Ajzen's (1991) Theory of Planned Behaviour (TPB), which holds that human behaviour, including reproductive decision-making, is shaped by three interacting components. Behavioural beliefs generate attitudes toward a given course of action; normative beliefs generate subjective norms reflecting what significant others such as family, peers, and community members expect of the individual; and control beliefs generate perceived behavioural control, the individual's sense of whether she has the actual capacity to act on her preferences given the resources, constraints, and barriers she faces.

These three components combine to shape behavioural intentions, which in turn are the most immediate predictor of actual behaviour.

Applied to socio-demographic vulnerability among pregnant teenage girls in Kimilili Sub County, the theory offered a structured account of how age, education, family structure, and socio-economic status operate not as isolated statistical correlates but as forces that shape the three components of planned behaviour directly. Age shaped both attitudes (younger girls held less developed risk perceptions) and perceived behavioural control (younger girls had less capacity to negotiate contraceptive use, particularly with older partners).

Educational attainment shaped perceived behavioural control most directly, since school enrolment provided both reproductive health knowledge and the daily structure that reduced unsupervised exposure to risk. Family structure shaped subjective norms and the practical capacity for behavioural control simultaneously: the level of parental supervision available to a girl determined both what she believed was expected of her and what she was practically able to do.

Socio-economic status operated primarily through perceived behavioural control, since poverty directly restricted access to contraceptive services regardless of a girl's knowledge or attitude toward using them.

The theory's three-component structure proved particularly useful for disentangling what were otherwise deeply entangled influences in the qualitative data, separating, for example, a girl's own limited risk perception from the social pressure of peer conformity, or a structural barrier such as clinic distance from a personal attitude toward contraception.

One limitation of the theory in this context is its assumption that decision-making is largely rational and deliberate, an assumption that did not hold uniformly across participant accounts; several described circumstances of fear, confusion, limited information, and constrained agency in which intentions and behaviour were shaped as much by what was not possible as by what was preferred.

Methodological triangulation across quantitative and qualitative data helped capture these constrained and often non-deliberate realities that a purely quantitative application of the theory would have missed.

IV. LITERATURE REVIEW

The literature on socio-demographic determinants of teenage pregnancy is extensive at the global level but becomes progressively sparser as the geographic focus narrows toward specific sub-national communities such as Kimilili Sub County. This section reviews evidence across four geographic levels, identifying the specific gap that the present study addresses.

4.1 Global Evidence

Globally, the four socio-demographic factors of age, educational attainment, family structure, and socio-economic status recur consistently across diverse settings as the primary determinants of adolescent pregnancy vulnerability (World Health Organization, 2023).

The United Nations Population Fund (2022) established that the relationship between education and pregnancy is bidirectional, with lower attainment

increasing risk and pregnancy itself driving further dropout.

In the United States, Biggs et al. (2017) demonstrated that socio-economic circumstances at the time of pregnancy, including poverty, housing instability, and educational disruption, were the strongest predictors of subsequent adverse outcomes, establishing socio-economic status as a determinant that operates both before and after the pregnancy event itself.

4.2 African Evidence

Continental evidence reinforces the centrality of these four factors while adding important structural nuance. Kassa et al. (2018), in a meta-analysis spanning 52 studies and 24 African countries, established a pooled adolescent pregnancy prevalence of 18.8%, identifying rural residence, limited schooling, and household poverty as the most consistent predictors.

Yakubu and Salisu (2018) extended this picture by documenting how poverty operationalises into transactional relationships, with girls from poor households disproportionately entering relationships with older men who provided material support, a mechanism distinct from but related to simple poverty measurement.

Amoadu et al. (2022) showed that the same socio-economic vulnerabilities that increase pregnancy exposure also compound the severity of obstetric outcomes once pregnancy occurs, indicating that socio-demographic disadvantage operates cumulatively rather than as a single discrete risk factor. Alukagberie et al. (2023) confirmed in Nigeria that community-level poverty, constrained school access, and disrupted family structures function as dominant structural predictors operating through both individual and community-wide pathways.

4.3 East African Evidence

East African research sharpens this picture considerably and is most directly relevant to the present study's context. Wado et al. (2019), examining five countries including Kenya, found family structure to be a particularly strong predictor, with girls in single-parent or guardian-headed households consistently recording higher pregnancy rates linked to reduced adult supervision. Ochen et al. (2019) confirmed in Uganda that low educational attainment, poverty, peer influence, and parental absence constituted the four strongest independent predictors of pregnancy among girls aged 13–19 years, a finding that maps closely onto the four factors examined in the present study.

Musinguzi et al. (2022), studying Hoima District in Uganda, found that school dropout preceding pregnancy was directly associated with reduced reproductive health knowledge and greater exposure to adult male partners, establishing a specific causal pathway rather than a mere statistical association.

Asmamaw et al. (2023) demonstrated through multilevel modelling that both individual-level educational status and community-level poverty independently predicted teenage pregnancy across the region, confirming that interventions targeting only individual behaviour would be insufficient without attention to community-level structural conditions.

4.4 Kenyan Evidence

Kenya's national data reveal the same four-factor pattern operating with particular intensity. The Kenya Demographic and Health Survey (KNBS & ICF, 2023) documented extreme disparities by wealth quintile and educational attainment, confirming poverty and education as the most powerful individual-level predictors nationally.

Mutea et al. (2022), tracing trends across KDHS data from 2003 to 2014, identified family structure, peer influence, and poverty as persistent sociocultural drivers of adolescent pregnancy in Kenya.

Jakubowski et al. (2025) extended this evidence into Western Kenya specifically, quantifying the long-term educational cost of teenage motherhood with notable precision: a 27.6 percentage point reduction in the probability of completing primary education among girls with multiple adolescent births. At the county level, Stats Kenya (2024) and the Kenya Human Rights Commission (2024) documented the scale of the problem in Bungoma County, but neither source disaggregated findings to the sub-county level or examined the socio-demographic profile of

affected girls in specific communities such as Kimilili.

4.5 Knowledge Gap

Taken together, the literature at all four levels establishes that age, educational attainment, family structure, and socio-economic status collectively determine teenage pregnancy vulnerability, operating through both individual pathways and structural community conditions.

What this literature does not provide, however, is a socio-demographic profile specific to pregnant teenage girls in Kimilili Sub County, nor any empirical account of how these four factors interact within this particular rural, low-income, predominantly Christian community context to produce the elevated pregnancy rates documented at the county level.

National and county statistics establish that a problem exists in this region; they do not explain its specific socio-demographic anatomy at the sub-county level. Addressing this gap was the specific objective of the present study.

V. RESEARCH METHODOLOGY

This study employed a convergent parallel mixed-methods design (Creswell & Plano Clark, 2018), integrating quantitative and qualitative approaches within a single investigation to exploit the complementary strengths of each.

Quantitative methods measured the prevalence and strength of associations between socio-demographic variables and pregnancy vulnerability across a representative sample, while qualitative methods provided the explanatory depth needed to understand the specific mechanisms through which these factors operated in participants lived experience.

The study was conducted in Kimilili Sub County, Bungoma County, Western Kenya, a predominantly rural, agriculturally based community identified by the Bungoma County Government (2021) as a teenage pregnancy hotspot.

The target population comprised Christian teenage girls aged 13–19 years who had experienced pregnancy within the two years preceding data collection, whether currently pregnant, post-delivery, or having experienced another resolution outcome, together with key informants including community health volunteers and healthcare providers.

Sample size for the quantitative component was determined using Cochran's (1977) formula with a 10% non-response adjustment, yielding a target of 260 questionnaire participants. A multi-stage sampling procedure was used: purposive sampling identified health facilities, churches, and community sites where pregnant and parenting teenagers could be accessed; stratified random sampling then selected participants across denominational and pregnancy outcome categories, with simple random sampling applied within each stratum.

For the qualitative component, purposive sampling selected 20 participants for in-depth interviews and 48 participants organised into six focus group discussions, alongside 15 key informants drawn from religious leaders, healthcare providers, and community health volunteers.

A structured Likert-scale questionnaire (1 = Strongly Disagree to 5 = Strongly Agree) collected data on four socio-demographic indicators: age, educational attainment, family structure, and socio-economic status, alongside background demographic information.

A semi-structured interview schedule and focus group discussion guide collected qualitative data exploring the lived mechanisms underlying these factors. Instruments were piloted with 26 participants (10% of the quantitative sample) in neighbouring Webuye Sub County, with Cronbach's alpha computed for all Likert subscales; all sections exceeded the 0.7 threshold for adequate internal consistency (Creswell & Creswell, 2018).

Of 260 targeted questionnaire participants, 204 responded, a response rate of 78.5%, exceeding Taherdoost's (2017) recommended 70% threshold for adequate analysis. Eighteen of 20 targeted in-depth

interviews were completed (90.0%), and 34 of 48 targeted focus group participants took part (70.8%).

Quantitative data were entered into SPSS version 26 and analysed using descriptive statistics, with Likert means interpreted using the ranges established by Joshi et al. (2015): 1.00–1.79 Strongly Disagree, 1.80–2.59 Disagree, 2.60–3.39 Neutral, 3.40–4.19 Agree, and 4.20–5.00 Strongly Agree.

Qualitative data were analysed thematically following the six-phase procedure of Braun and Clarke (2006). Ethical approval was obtained from Kibabii University's School of Graduate Studies, with a research permit secured from the National Commission for Science, Technology and Innovation.

Informed consent was obtained from all participants aged 18–19 years directly, with written assent from participants under 18 years and written consent from a parent or guardian; all participants were assured of confidentiality and the right to withdraw at any time.

VI. FINDINGS

This section presents quantitative and qualitative findings on the four socio-demographic factors examined: age, educational attainment, family structure, and socio-economic status. The demographic profile of the 204 questionnaire respondents is presented first, followed by findings on each factor in turn.

6.1 Demographic Profile of Respondents

Table 1 summarises the background demographic characteristics of the 204 questionnaire respondents.

Table 1. Demographic Characteristics of Respondents (n = 204)

Characteristic	Category	Frequency	%
Age	13–15 years	42	20.6
	16–17 years	89	43.6
	18–19 years	73	35.8
Education	No formal education	8	3.9
	Primary (incomplete)	31	15.2
	Primary (complete)	47	23.0
	Secondary (incomplete)	72	35.3
	Secondary (complete)	38	18.6
	Tertiary	8	3.9
Family Structure	Both parents	52	25.5
	Mother only	71	34.8
	Father only	18	8.8
	Guardian/relative	49	24.0
	Living alone	9	4.4
	Other	5	2.5
Residence	Rural	142	69.6
	Urban	37	18.1
	Peri-urban	25	12.3

Source: Field Data (2026).

As shown in Table 1, pregnancy was most concentrated among mid-adolescent girls aged 16–17 years (43.6%), followed by 18–19-year-olds (35.8%) and 13–15-year-olds (20.6%).

The largest single educational category was incomplete secondary schooling (35.3%), and cumulatively 77.5% of respondents had attained no more than incomplete secondary education. Only 25.5% of respondents lived with both parents, with the remaining 74.5% in single-parent, guardian-headed, or other alternative arrangements. Rural residents constituted 69.6% of the sample, consistent with the predominantly rural character of Kimilili Sub County.

6.2 Age as a Socio-Demographic Factor

Respondents rated five Likert statements on age as a socio-demographic factor in pregnancy. Table 2 presents the results.

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Table 2. Respondents' Ratings on Age as a Socio-Demographic Factor (n = 204)

Statement	Mean	SD
Peer influence shaped decisions about relationships and sex	4.07	0.91
Younger girls (13–15) are more vulnerable than older teens	4.05	0.95
Young age limited reproductive health knowledge	4.02	0.97
Young age limited ability to make informed decisions	4.01	0.94
Older teenagers face greater social pressure	3.87	1.03

Note. Interpreted using Joshi et al. (2015) ranges; 3.40–4.19 = Agree. Source: Field Data (2026).

All five statements fell within the agree range (M = 3.87–4.07). Peer influence on relationship and sexual decisions recorded the highest mean (M = 4.07, SD = 0.91), confirming peer conformity pressure as the most directly experienced age-related mechanism. The closely ranked scores for reproductive health knowledge (M = 4.02) and decision-making capacity (M = 4.01) indicate that respondents understood their age-related vulnerability in both informational and cognitive terms.

Qualitative accounts illustrated these mechanisms concretely. One participant who became pregnant at fifteen described receiving no reproductive health information beyond an instruction to abstain: "I was only fifteen. I did not even know how pregnancy happened properly. Nobody told me at home and at church they only said do not have sex before marriage" (IDI Participant 3, aged 17).

Another participant described entering a relationship to avoid peer exclusion: "All my friends had boyfriends. I felt like I was the only one who did not. I did not want to be left out so I also got into a relationship" (IDI Participant 7, aged 17). A third account documented the power imbalance in intergenerational relationships: "He was twenty-two and I was sixteen. He said he knew what was best. I was afraid to say no or to ask him to use protection" (IDI Participant 11, aged 18). These accounts confirm that age-related vulnerability in Kimilili Sub County operates through informational deficits, peer conformity, and constrained negotiating power in relationships with older partners, consistent with Wado et al. (2019), Musinguzi et al. (2022), and Kassa et al. (2018).

6.3 Educational Attainment as a Socio-Demographic Factor

Table 3 presents Likert findings on educational attainment.

Table 3. Respondents' Ratings on Educational Attainment as a Socio-Demographic Factor (n = 204)

Statement	Mean	SD
Staying in school reduces the risk of teenage pregnancy	4.19	0.86
Girls who drop out of school are more likely to become pregnant	4.12	0.89
Girls with low education have less knowledge about contraception	4.05	0.93
Pregnancy causes girls to drop out of school permanently	4.01	0.99
Education gives girls confidence to refuse unwanted sexual advances	3.96	0.98

Source: Field Data (2026).

Staying in school scored highest as a protective factor (M = 4.19, SD = 0.86), with school dropout as a risk factor close behind (M = 4.12), reflecting the well-documented bidirectional relationship between schooling and pregnancy (UNFPA, 2022). One participant traced her pregnancy directly to the structural vacuum left by dropout: "When I left school I had nothing to do at home. My mother was in the farm all day. I started spending time with a man from the neighbourhood" (IDI Participant 5, aged 17). Another, who had left school at class seven, described relying on unreliable peer information about contraception: "Nobody taught us about contraception at school. My friends told me things but they were also not sure" (IDI Participant 9, aged 16). A third participant documented the permanence of dropout after pregnancy: "When I got pregnant the school told me to go home. After I delivered, I wanted to go back but my parents said there was no money" (IDI Participant 14, aged

18), confirming Jakubowski et al.'s (2025) finding that poverty and childcare compound the educational cost of teenage motherhood in Western Kenya.

6.4 Family Structure as a Socio-Demographic Factor
Table 4 presents Likert findings on family structure.

Table 4. Respondents' Ratings on Family Structure as a Socio-Demographic Factor (n = 204)

Statement	Mean	SD
Girls from two-parent families are better protected against pregnancy	4.13	0.88
Girls without both parents have less supervision and are more vulnerable	4.09	0.92
Single-parent households increase a girl's risk of early pregnancy	4.01	0.97
Girls raised by guardians/relatives receive less guidance on sexual matters	3.97	1.01
Absent fathers leave girls without male role models and protection	3.93	1.03

Source: Field Data (2026).

Two-parent family structure as protective scored highest (M = 4.13, SD = 0.88), consistent with Wado et al.'s (2019) East African finding that household composition predicts parental supervision and reduced pregnancy vulnerability. One participant described the supervisory gap created by an absent father and a mother working long hours: "My father left when I was young. My mother worked until late at night. There was nobody to check on me" (IDI Participant 2, aged 16).

Another, raised by an aunt who avoided all discussion of sexuality, was four months pregnant before her guardian discovered the relationship: "My aunt never talked to me about boys or sex. She said it was not something to discuss" (IDI Participant 6, aged 17).

A qualifying account from a two-parent household showed that parental presence alone is insufficient without open communication: a participant whose strict parents forbade any discussion of boys conducted her relationship entirely in secret, leaving her unable to seek guidance (FGD 3, Participant 2, aged 18), echoing Musinguzi et al.'s (2022) Ugandan finding that overly restrictive parenting can push adolescents into secretive, higher-risk relationships.

6.5 Socio-Economic Status as a Socio-Demographic Factor
Table 5 presents Likert findings on socio-economic status.

Table 5. Respondents' Ratings on Socio-Economic Status as a Socio-Demographic Factor (n = 204)

Statement	Mean	SD
Poverty limits girls' access to contraception and reproductive health services	4.18	0.85
Girls from poor households are more likely to become pregnant as teenagers	4.14	0.88
Financial hardship pushes girls into relationships with older men who provide money	4.08	0.94
Lack of basic needs forces girls to depend on men for survival	4.07	0.93
Girls from wealthier families have more options and are less vulnerable	3.99	0.99

Source: Field Data (2026).

Restricted access to contraceptive services scored highest (M = 4.18, SD = 0.85), reflecting KDHS 2022 data showing teenage pregnancy three times more prevalent among girls in the lowest wealth quintile (21.1%) than the highest (7.1%) (KNBS & ICF, 2023). One participant described a purely material barrier to family planning:

"The clinic is far and there is no fare. Even if I knew about family planning, I could not go there. My mother uses everything she earns for food" (IDI Participant 4, aged 17). Another described entering a relationship for material support rather than romantic interest: "This man used to give me money for lunch and sometimes he bought me clothes.

I stayed with him because he helped me" (IDI Participant 8, aged 16), confirming Kassa et al.'s (2018) finding across 24 African countries that economic dependence on older male partners elevates pregnancy risk precisely because it removes a girl's

capacity to negotiate contraceptive use. A community health volunteer confirmed this pattern operates at the community level:

"Almost all the girls we see here who are pregnant are from very poor homes… the girls grow up knowing they must find a man to help them survive" (KII, Community Health Volunteer 3), consistent with Musinguzi et al.'s (2022) Ugandan finding that community-level poverty independently predicts teenage pregnancy.

VII. CONCLUSIONS

Teenage pregnancy in Kimilili Sub County is structurally produced rather than individually chosen. It is concentrated among mid-adolescent girls aged 16–17 years who are out of school or at dropout risk, who live without both parents, and who come from poor rural households with no realistic access to contraceptive services. The four socio-demographic factors examined do not operate in isolation; they interact.

Poverty drives school dropout, which removes the supervisory and informational scaffolding that delays pregnancy; family instability removes parental oversight, creating the unsupervised time in which relationships with older men develop; and the resulting power asymmetry removes the agency needed to negotiate contraceptive use.

The most proximate risk factors identified, peer conformity pressure and economic dependence on older male partners, are expressions of these deeper structural conditions rather than independent causes in their own right.

All twenty Likert items across the four domains returned mean scores within the agree range, and qualitative accounts consistently corroborated the quantitative patterns, providing convergent evidence that age, educational attainment, family structure, and socio-economic status collectively and measurably shape teenage pregnancy vulnerability in this specific community.

The study confirms, at the sub-county level, the pattern long established at global, African, East African, and Kenyan levels, while adding the specific mechanisms, abstinence-only informational gaps, peer conformity, intergenerational power imbalance, supervisory absence, and material dependency, through which these factors operate in Kimilili Sub County particularly.

VIII. RECOMMENDATIONS

The Ministry of Education, Science and Technology in Bungoma County should implement targeted school retention programmes for adolescent girls, combining conditional financial support for girls from poor households with the integration of comprehensive, age-appropriate reproductive health education into the school curriculum, addressing both the economic and informational gaps identified in this study.

County and sub-county health authorities should establish accessible reproductive health and family planning services within Kimilili Sub County, including outreach to rural areas, to reduce the geographic and financial barriers that currently restrict contraceptive access among economically disadvantaged adolescent girls.

Community-based family strengthening programmes should be developed to support single-parent and guardian-headed households in providing effective supervision and open communication about reproductive health, recognising that parental presence alone, without communicative engagement, does not guarantee protection.

Social protection programmes targeting the poorest rural households in Kimilili Sub County should be prioritised, given the consistent and strong association documented between household poverty and entry into transactional relationships with older men.

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