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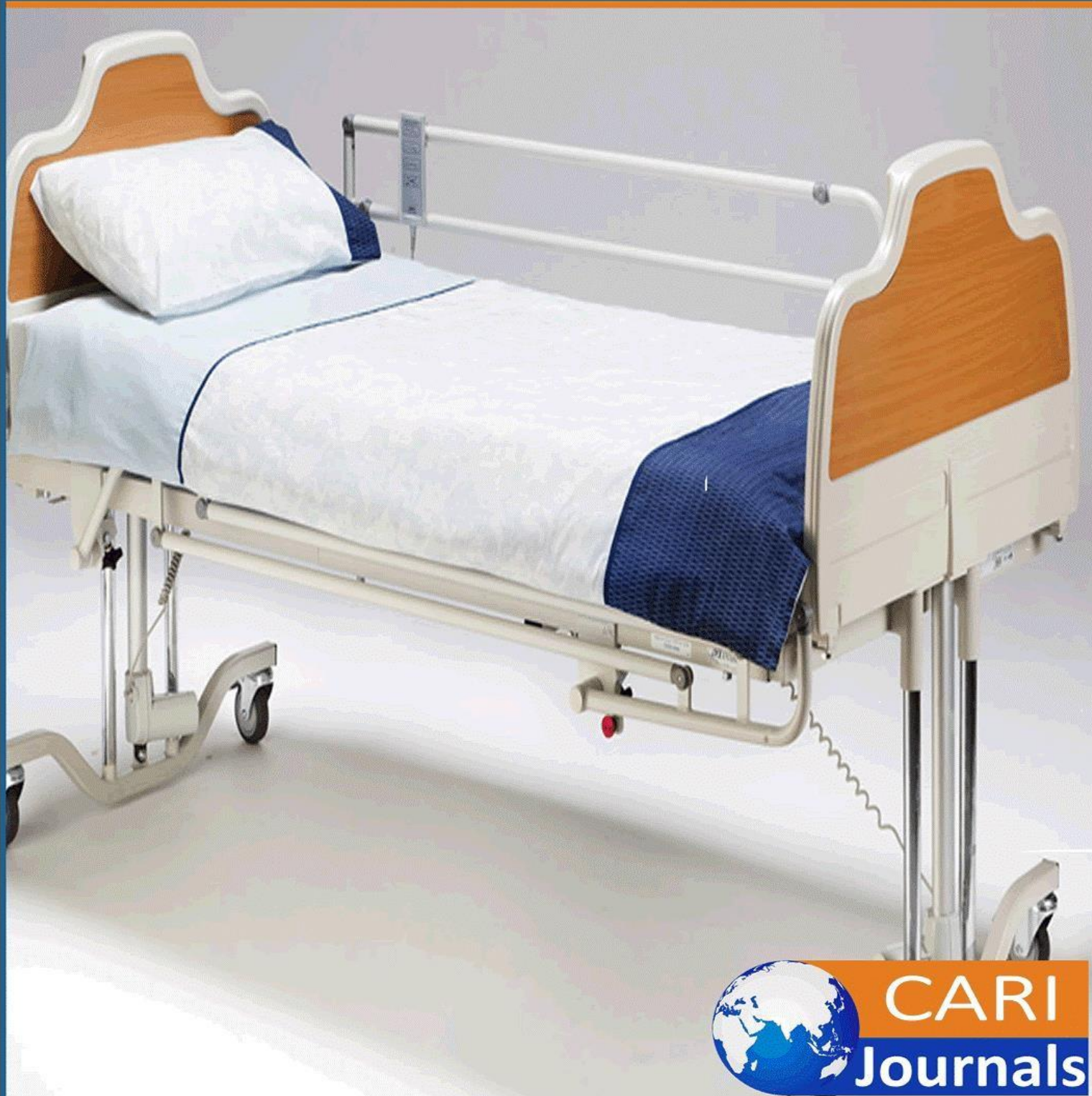

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Factors Associated with use of Modern Contraceptives amongst Sexually Active Adolescent Girls Aged 15-19 in Homa Bay Town Sub-County, Kenya

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Abstract

Background: Modern contraception is the use of birth control methods to determine the number of children in a family. Worldwide, more than 16 million adolescent girls give birth every year and an additional 5 million have abortions in which sub-Saharan Africa accounts for 50% of these births. Low or no utilization of modern contraceptives among the adolescents, has led to increased cases of unplanned pregnancies, which stands at 80% as per birth and death registration records nationally.

Methodology: A cross-sectional mixed study design was used; involving 385 girls aged 15-19 years selected through systematic random sampling. For quantitative data, the study employed a structured/semi-structured questionnaire, while for qualitative data; purposive sampling was used to identify key informants. Descriptive and inferential statistics were used to analyze quantitative data with STATA v14, while qualitative data was analyzed using NVivo and thematic analysis.

Findings: Study revealed that one-third 118 (30.7%) of the respondents were aged 17 years. The majority 370 (96.1%) of the respondents were single, with 346 (89.9%) attending public schools. It was further established that while 68.5% of the respondents were knowledgeable about modern contraceptives only 37.2% were using them. Married adolescent girls had higher odds of using modern contraceptives than unmarried girls (a OR=19.88, p <0.001). The cultural and religious practices of the community were also significant predictors of contraceptive use; individuals with rigid cultural and religious beliefs were less likely to use contraceptives (a OR=9.1, p<0.001). Additionally, the level of knowledge was significantly related to contraceptive usage (a OR=11.6, p<0.001).

Unique Contribution to Theory, Practice and Policy: From the research findings, it can be deduced that socio-economic, cultural, and demographic variables significantly impact the utilization of modern contraceptives among adolescent girls. The study's implications are valuable because they suggest that if access to accurate information were improved, cultural and religious barriers were eliminated, and economic opportunities for adolescent girls were provided, the uptake of modern contraceptives could increase, leading to a decrease in teenage pregnancies and related risks.

Key Words: *Utilization, Modern Contraceptives, Sexually Active, Adolescent Girls, Health Services*

1. INTRODUCTION

Adolescence is defined as any person between the ages of 10 and 19, according to the World Health Organization (WHO, 2018). Adolescence is part of the developmental stages that involve physical, mental, as well as psychological development that culminates in sexual reproduction. Modern contraceptive aims to control childbearing, timing and spacing, hence contributes to the achievement of the third Sustainable Developments Goals (SDGs) by reducing child mortality, improving maternal health and universal access to reproductive health while ensuring healthy lives and promoting wellbeing for all at all ages.

Globally, use of modern contraceptives prevented an estimated 308 million unintended pregnancies and meeting all women's need for modern methods of contraception would avert an additional 67 million unintended pregnancies annually (WHO, 2023). According to World Health Organization, in the developing countries, 214 million women in the reproductive age group who want to avoid pregnancy are not using a modern contraceptive method. This is against a backdrop of benefits that have been associated with contraception that include the following: low safe abortion and related mortality, youthful and teenage pregnancies, Sexually Transmitted Infections/Human Immunodeficiency Virus (STI/HIV) and high parity or many children than can be supported (Izugbara *et al.*, 2018). Contraception also has other side fringe benefits where the hormonals cause an impact for prevention of uterine and ovarian cancers, control of excessive and painful menstruation, treatment of acne, polycystic ovarian cysts and other ovarian cysts (Adedini et al., 2019).

Unintended teenage pregnancy continues to be high in Ghana where contraceptive prevalence rate is low at 27.8% compared to other countries like Kenya with 58% Cost per Click (CPC). Over the past years, Ghanian authorities have made great progress in the exclusion of restrictions to access contraceptives with the help of the program called Costed Implementation Plan (CIP). In addition to the improvements made through the CIP, restricted access to other Family Planning services, coupled with inadequate human manpower in health facilities remain to challenge contraceptive use. That is the reason why modern contraceptive rates as at now are at 22.2 percent among all women of the required age in Ghana (Ziblim *et al.*, 2022). Even with family planning and contraceptives available, teenage contraceptive use faces challenges due to socio-cultural and demographic factors that influence the decision to use contraceptives, such as peer pressure, cultural beliefs and religion, perceived risk and side effects of contraceptive usage, education level of the adolescent, discussion of contraceptives usage with a partner, age and socio-economic status of the adolescent, knowledge of the ovulatory cycle and frequency of visits to the health facility. In addition, Islam *et al*. (2020) argue that contraception is discussed in society and reproductive health as a family planning tool within the family that assists couples in planning for births. Some of the women use contraceptives in the context of family planning when in fact, young and unmarried girls or even adolescents may need contraceptives to avoid pregnancy at all or if they

have pronounced and painful periods, they need contraceptives to regulate them. Due to such framing, women and girls, who are unmarried or in a category of 15-19 years are embarrassed to seek for contraception.

Adolescents in developing countries often engage in sexual activities at a very young age, sometimes as early as 15 years or younger, but few of them use contraception. The lack of contraceptive use leads to negative consequences, including irregular or inconsistent contraceptive practices (such as condom use), engagement with risky sexual partners, cross-generational sex, multiple partnerships, unplanned pregnancies, unsafe abortions, and increased vulnerability to Human Immunodeficiency Virus and other sexually transmitted diseases. Due to legal, cultural, and religious factors, it is challenging to gather accurate data on contraceptive usage among unmarried adolescents worldwide. Of the available data for sexually active girls aged 15-19 who use modern contraception, only 10% is available. This limited data reflects significant unmet needs, leading to more than 6 million unintended pregnancies annually in developing countries, which often result in unsafe abortions (WHO, 2017).

Among young girls, 15% of women between 15–19 years have ever been pregnant; 12% have given birth to at least one child, 1% has had a stillbirth and 3% are currently pregnant. The findings further revealed that the percentage of women aged 15–19 who have ever been pregnant goes up with age, that is, 3% for age 15 and 31% of age 19. This paper, however, reveals that despite a noticeable rise in contraceptive usage among the married and sexually active young women in Kenya in the last couple of decades, there is still a high unmet need. At the current population, 76% of the married women and 89% of sexually active unmarried woman have need for family planning according to the Kenya Demographic and Health Survey (KDHS, 2022). Consequently, the *in Their Hands* (ITH) program was scaled up in Homa Bay County from April 2017 to March 2020 to increase the utilization of adolescent sexual and reproductive health (SRH) services. The program provided information, products and services to adolescent girls and households to encourage the use of modern contraceptive methods and to garner community support for SRH services for girls. ITH employed an online-based connection system called T-Safe to link girls to services. Girls could enroll on the platform in one of three ways: through community mobilization by Community Health Volunteers (CHVs), who used phones or cards to register the girls; self-enrollment, where girls registered themselves by sending a short messaging service (SMS); and peer-to-peer enrollment, where girls enrolled other girls and were rewarded as agents each time they enrolled. Once enrolled, girls could access free services at ITH-participating health facilities (APHRC, 2020). The ITH program was targeted at specific settings due to high rates of teenage pregnancy and unmet needs among adolescents. By the population distribution and structure, KDHS (2022) revealed that Homa Bay County young population with 48% of population below 15 years. This youthful population influenced the County's development and health objectives because it increases pressure on the rise of service demand, particularly in the health and education

sectors. Teenagers' sexual and reproductive health (SRH) and an index of SRH need satisfaction are two indices of concern in Kenya.

The women of Homa Bay County have reported to have had their first sexual experience two years earlier than the national average age. The teenage pregnancy in the County is high; whereby 18.7% of females aged 15-19 have already given birth to at least one child, more than the 12.2% recorded nationally. More to this, 2.9% are now pregnant and 23.2% have ever been pregnant in their lifetime (KDHS, 2022).

This study identified factors that influence the use of modern contraceptives among sexually active adolescent girls 15-19 years in Homa Bay Town Sub-County. The study findings are relevant to the goal of reducing and or preventing unwanted teenage pregnancies and STI/HIV transmission.

2. METHODOLOGY

The cross-sectional mixed-methods study was done in Homabay county involving a quantitative survey with adolescent girls aged 15-19 years while qualitative interviews with nursing officer in charge of the health center, two nurses working in MCH/FP clinic, Pharmacist, County and Sub-County Reproductive Health Coordinator, CHEW and two CHVs. The study design was selected because it allowed researchers to examine individual characteristics, such as exposure to risk factors, as well as information regarding why teenagers fail to use modern contraception while understanding the negative result, unplanned pregnancy (Alemayehu *et al.*, 2018). The study design provided accurate information which accounts for the characteristics of a particular individual event, it describes what exists, determines the frequency with which something occurs, and categorizes information. Furthermore, it was beneficial in measuring the percentage of teenage females in the general community to identify characteristics that may influence contemporary contraceptive usage.

Data Management and Statistical Analysis

General cleaning of the quantitative data was done before the completed questionnaires were coded and entered using Microsoft excel. It was later exported to STATA version 14 for analysis. The quantitative data were summarized using descriptive statistics (means, standard deviation, frequencies, and percentages). The Chi-square test was used to check for a significant relationship between categorical variables of interest and the use of modern contraceptives. Multiple binary logistic regression was used to identify significant predictors of the use of modern contraceptives among adolescents at a 95% confidence interval.

The logistic regression model specified as:

$$\text{Logit}(P) = \log P = \left(\frac{P}{1-P}\right) = \beta_0+\beta_1X_1+\beta_2X_2+\cdots+\beta_kX_k$$

Where P is the probability of the outcome occurring, X_1, X_2…, Xk are the independent variables, and β0,β1,…,βk are the coefficients to be estimated.

The findings are presented in tables. In addition, Qualitative data from key informant interviews were analyzed thematically. Qualitative data was analyzed thematically and was used to supplement the quantitative data.

3. FINDINGS

This chapter presents the findings from the study, detailing the key results from the data collected. It includes a comprehensive analysis of the demographic characteristics, socio-economic factors, and other relevant variables associated with the study's objectives. The results are systematically organized to address the broad and specific objectives outlined in the study, providing insights into the factors influencing the use of modern contraceptives among sexually active adolescent girls in Homa Bay Town Sub-County, Kenya.

3.1 Socio-Demographic Characteristics of the Respondents

About one third 118 (30.7%) of the respondents amongst sexually active adolescent girls aged 15-19 in Homa Bay Town Sub-County were aged 17 years. The predominant religion was Christianity with 379 (98.4%) of the respondents. The majority, 370 (96.1%) of the respondents were single with 346 (89.9%) having attended public schools. Of the participants 268 (69.6%) of them had attained secondary education. Additionally, most respondents had both parents alive, with 247 (64.2%) reporting this status. Regarding sources of income, slightly more than half of 218 (56.6%) them were employed.

Table 1 Socio-Demographic Characteristics of the Respondents

Variables	Frequency(N)	Percentage (%)
Age		
15	61	15.8
16	98	25.5
17	118	30.7
18	76	19.7
19	32	8.3
Religions		
Christian	379	98.4
Muslim	6	1.6
Marital Status		
Single	370	96.1
Married	15	3.9
School attended		
Public	346	89.9
Private	39	10.1
Level of Education		
Secondary	268	69.6
College	20	5.2
Primary	97	25.2
Parent Status		
Both alive	247	64.2
One alive	113	29.4
Orphan	25	6.5
Source of income		
Employed	218	56.6
Self employed	71	18.4
Others	46	12
Unemployed	50	13

N=385

3.2 Socio-Economic Factors on the Use of Modern Contraceptives amongst Sexually Active Adolescent Girls Aged 15-19

The variable assessing the belief that it is taboo to discuss modern contraceptives with a husband or partner had a mean score of 2.47±1.21 on a Likert scale (ranging from 1 to 5). The unadjusted analysis showed that those who expressed stronger agreement with this statement (higher scores) had higher odds (cOR=4.4; 95% CI: 3.12-6.33, p<0.001) of associating modern contraceptive use with negative consequences. However, after adjusting for other variables, the association was not statistically significant (aOR=2.8, 95% CI: 0.64-12.18, p=0.17), suggesting that other factors may

explain this relationship. In contrast, the belief that the use of modern contraceptives by adolescents is influenced by religious and cultural beliefs showed a mean score of 2.78±1.37. The unadjusted odds ratio (cOR) indicated that stronger agreement with this belief was associated with a 6.6 increase in the odds of contraceptive use being guided by these beliefs (95% CI: 1.8-23.3, p<0.001). This association remained significant even after adjustment, with an adjusted odd ratio (aOR) of 9.1 (95% CI: 1.5-55.3, p<0.001).

Table 2 Socio-Economic Factors on the Use of Modern Contraceptives amongst Sexually Active Adolescent Girls Aged 15-19

Variable	Mean±SD	Min, Max	COR (95% CI)	P-Value	AOR (95% CI)	P-Value
I consider it a taboo to discuss modern contraceptives with my husband/ partner	2.47±1.21	1,5	4.44(3.12-6.33)	**<0.001**	2.8(0.64-12.18)	0.17
The use of modern contraceptives by adolescents is guided by religious and cultural beliefs.	2.78±1.37	1,5	6.6(1.8-23.3)	**<0.001**	9.1(1.5-55.3)	**<0.001**

3.2.1 Qualitative Results on Socio-Economic Factors

The table 3 below highlights the themes, subthemes and codes under the socio-economic factors as it came out from the Key Informant Interview.

Table 3 Qualitative Results on Socio-Economic Factors

Theme	Subthemes	Codes
Cultural Norms	Patriarchal Values	*"Husbands make major decisions," "wives' financial dependence," "power imbalances between spouses"*
Mobility Restrictions	Limited Mobility	*"Restricted rights to move around," "seek permission to go out"*
Economic Barriers	Financial Dependence	*"Wives' financial dependence," "economic control by husbands"*
Social Pressures	Childbearing Expectations	*"Give birth soon after marriage," "fear of stigmatization," "pressure from family and community"*

Cultural norms were evident in the decision-making process regarding contraceptive use among married adolescent girls. As stated by one of the respondents, *"The husbands make all the decisions since they are the head of the families,"* highlighting the power imbalances and financial dependence that restrict the adolescent girls' ability to make independent decisions regarding their reproductive health (Ref. #01).

Considering mobility restrictions, married adolescent girls face significant mobility restrictions imposed by their husbands and in-laws, limiting their access to healthcare facilities. As cited by a

respondent, *"If the married adolescent girls do not seek permission to go out, there are high chances of fighting with their spouses,"* demonstrating the control exerted over their movements (Ref. #02). Additionally, it was noted that *"Married adolescents are usually expected to seek permission to go out not only from their husbands but also from their parents-in-law and other elders in the family"* (Ref. #06).

Economic barrier was felt in the financial dependence of married adolescent girls on their husbands further complicating their access to reproductive health services. The economic control by husbands is reinforced by statements like, *"wives' financial dependence"* and the reliance on their husbands for decisions related to contraceptive use.

Social pressures on married adolescent girls to bear children soon after marriage are significant barriers to contraceptive use. Clinical officers observed that *"Members of the local communities believe that a married adolescent girl must give birth in the first year of their marriage"* (Ref. #03). These expectations are driven by fears of stigmatization and gossip about infertility, with concerns such as, *"If a married adolescent girl does not have a child after 2–5 years of marriage, people in the community tend to have negative thoughts about them"* (Ref. #04). Additionally, the fear of elopement reinforces these pressures: *"Community and family members think that married adolescent girls getting pregnant soon after marriage is good as they cannot elope with other men once they bear a child"* (Ref. #05).

3.3 Level of Knowledge and Use of Modern Contraceptives amongst Sexually Active Adolescent Girls Aged 15-19

The statistical analysis as shown in table 4.4, revealed significant associations between the level of knowledge and the use of modern contraceptives among sexually active adolescent girls aged 15-19. Girls who agreed that sex education enhanced their knowledge of contraceptives had a mean score of 3.61±0.97, logistic regression showed a higher odd of using contraceptives (cOR=1.6, 95% CI: 1.3-2.1, p<0.001), though this was not significant after adjustment (aOR=1.4, 95% CI: 0.3-6.1, p=0.164). Availability of information on modern contraceptives in the community showed a mean score of 3.88±1.26 and was strongly associated with use, both before (cOR=11.6, 95% CI: 7.1-18.9, p<0.001) and after adjustment (aOR=3.1, 95% CI: 1.4-7.6, p<0.001). Access to information had a significant association before (cOR=2.4, 95% CI: 1.5-7.8, p<0.001) though after adjustment it did not (aOR=1.24, 95% CI: 0.01-3.5, p=0.924). Additionally, access to peer educators had a mean score of 2.51±1.32 on a Likert scale (ranging from 1 to 5) and significantly increased the likelihood of contraceptive use (cOR=21.8, 95% CI: 2.5-90.5, p<0.001; cOR=19.1, 95% CI: 4.7-78, p=0.014). High levels of knowledge were associated with greater use of contraceptives, as girls knowledgeable about contraceptive methods (aOR=11.6, 95% CI: 2.6-51.5, p<0.001), where to find contraceptives (aOR=16.6, 95% CI: 4.4-62.2, p<0.001), and those who had acquired any contraceptive (cOR=7.1, 95% CI: 2.0-25.7, p=0.003) were significantly more likely to use them.

Table 4 Level of Knowledge and Use of Modern Contraceptives amongst Sexually Active Adolescent Girls Aged 15-19

Variable	Mean±SD	Min, Max	COR (95% CI)	P-Value	AOR (95% CI)	P-Value
Adolescent girls have been provided with excellent sex education and this has enhanced their knowledge on contraceptives	3.61±0.97	1,5	1.6(1.3-2.1)	**<0.001**	1.4(0.3-6.1)	0.164
Information on modern contraceptives is readily available in the community	3.88±1.26	1,5	11.6(7.1-18.9)	**<0.001**	3.1(1.4-7.6)	**<0.001**
Adolescent girls can access reliable and accurate information on modern contraceptive from the local healthcare facilities at any time	3.02±1.16	1,5	2.4(1.5-7.8)	**<0.001**	1.24(0.01-3.5)	0.924
There are peer educators in the community to advance the knowledge of adolescent girls on modern contraceptives	2.51±1.32	1,5	21.8(2.5-90.5)	**<0.001**	19.1(4.7-78)	**0.014**

Variable	Contraceptive Use No n (%)	Contraceptive Use Yes n (%)	Chi p-value	COR (95% CI)	P-Value	AOR (95% CI)	P-Value
Knowledge of any contraceptive method	3(1.2)	253(98.8)	**<0.001**	9.0(2.4-33.0)	**<0.001**	11.6(2.6-51.5)	**<0.001**
Knowledge of where you can find the contraceptive of your choice	19(6.9)	257no (93.1)	**<0.001**	19.7(8.0-48.3)	**<0.001**	16.6(4.4-62.2)	**<0.001**
Acquired any contraceptive	20(7.2)	257(92.8)	**<0.001**	18.5(7.6-45.1)	**<0.001**	7.1(2.0-25.7)	**0.003**

Qualitative Results on Level of Knowledge

Table 5 below highlights the themes, subthemes and codes under the level of knowledge as it came out from the Key Informant Interview.

Table 5: Qualitative Results on Level of Knowledge

Theme	Subthemes	Codes
Knowledge Gaps	Awareness of Services	*"Poor knowledge about contraceptives," "unaware of free services"*
Misinformation	Misconceptions	*"Risk of getting cancer from contraceptives," "beliefs about adolescent pregnancy risks"*
Shyness and Embarrassment	Communication Barriers	*"Not willing to discuss sexuality," "shyness to talk to male healthcare workers"*

The study showed a significant gap in awareness among adolescent girls regarding the availability of modern contraceptive services. The clinical officers reported that many girls were unaware that they could access these services for free: *"many adolescent girls had poor knowledge about the availability of modern contraceptives in the local public healthcare facilities"* (Ref. #05).

Misinformation about the risks associated with contraceptive use was identified as a major issue. A clinical officer shared a case where *"An adolescent girl once told me that she knows that if a girl uses contraceptive before reaching 18 years, she is exposed to the risk of getting cancer"* (Ref. #08). Such misconceptions hinder the adoption of modern contraceptive methods.

Shyness and embarrassment were frequently mentioned as reasons why adolescent girls avoid discussing their sexual behaviors and contraceptive use with healthcare providers. A clinical officer noted, *"The adolescents feel very shy to ask about modern contraceptive methods. Most of them are not willing to talk about their sexuality especially with male healthcare workers"* (Ref. #07). This shyness is exacerbated when healthcare providers are of the opposite sex, leading to a lack of open communication about reproductive health needs.

3.4 Demographic Factors and Use of Modern Contraceptives amongst Sexually Active Adolescent Girls Aged 15-19

The statistical analysis in table 4.6 shows demographic factors influencing the use of modern contraceptives among sexually active adolescent girls aged 15-19 highlighted several significant associations. Married adolescent girls showed a mean score of 2.92±1.31 and were significantly more likely to use modern contraceptives compared to their unmarried counterparts, with unadjusted odds (cOR=30.6, 95% CI: 13.7-95.8, p<0.001) and adjusted odds (aOR=19.88, 95% CI: 4.15-95.19, p<0.001) indicating a strong positive association. Additionally, married adolescents had better access to information on modern contraceptives than unmarried adolescents had a mean score of 3.27±1.25, this was also statistically significant (cOR=7.8, 95% CI: 1.9-32.2, p<0.001; aOR=3.1, 95% CI: 1.4-7.1, p=0.002). Although the number of surviving children with a mean score of 3.63±1.49 was initially associated with increased contraceptive use (cOR=1.7, 95% CI: 1.3-7.6, p<0.001), this association was not significant after adjustment (aOR=0.1, 95% CI: 0.01-2.95, p=0.2).

Table 5 Demographic Factors and Use of Modern Contraceptives amongst Sexually Active Adolescent Girls Aged 15-19

Variable	Mean±SD	Min, Max	COR (95% CI)	P-Value	AOR (95% CI)	P-Value
The number of surviving children influences the use of modern contraceptives among adolescent girls	2.92±1.31	1,5	1.7(1.3-7.6)	**<0.001**	0.1(0.01-2.95)	0.2
Married adolescent girls are more likely to use of modern contraceptives than unmarried adolescents	3.27±1.25	1,5	30.6(13.7-95.8)	**<0.001**	19.88(4.15-95.19)	**<0.001**
Married adolescents have goods access to information on modern contraceptives than unmarried adolescents	3.63±1.49	1,5	7.8(1.9-32.2)	**<0.001**	3.1(1.4-7.1)	**0.002**

3.4.1 Qualitative Results on Demographic Factors

Table 7 below highlights the themes, subthemes and codes under the demographic factors as it came out from the Key Informant Interview.

Table 6: Qualitative Results on Demographic Factors

Theme	Subthemes	Codes
Marital Status	Influence of Marriage	"Married adolescent girls," "restricted by husband and in-laws"
Religious Beliefs	Religious Restrictions	"Church teachings against contraceptives," "Muslim beliefs on punishment for contraceptive use"

Marriage plays a significant role in limiting adolescent girls' access to contraceptives. Clinical officers indicated that *"a greater proportion of married adolescent girls were unaware that they could obtain some modern contraceptives and family planning services free of charge at public healthcare facilities in Homa Bay town"* (Ref. #06). The restrictions imposed by husbands and in-laws were noted as key barriers, with statements like, *"Most married adolescent girls have never met community health workers since they never leave their homes"* (Ref. #09).

Religious beliefs act as a formidable barrier to the use of modern contraceptives. Clinical officers cited that *"The church [Catholic] teaches that the use of modern contraceptives such as condoms is a sinful act"* (Ref. #07). Similarly, for Muslims, it was reported that *"they believe that God punishes those who use contraceptives and therefore both unmarried and married adolescent girls are usually against the use of modern contraceptives"* (Ref. #08).

4. DISCUSSION

This chapter highlights how the study's findings compare to existing research, providing insights and recommendations for improving reproductive health interventions for adolescents.

Socio-Economic Factors

The findings from this study underscore the profound impact of socio-economic factors, particularly cultural and religious beliefs, on the use of modern contraceptives among sexually active adolescent girls in Homa Bay Town Sub-County. The analysis revealed that while cultural taboos initially appeared to be strongly associated with negative attitudes towards contraceptive use, this association lost statistical significance after adjusting for other factors. This suggests that although these taboos are prevalent, their impact on contraceptive use may be mediated by other socio-economic conditions.

In contrast, the persistent and significant influence of religious and cultural beliefs on contraceptive use highlights the deeply ingrained nature of these factors. This finding aligns with recent research conducted across Sub-Saharan Africa, where cultural and religious norms have been identified as major barriers to contraceptive use among adolescents. For instance, a study in rural Tanzania found that entrenched cultural and religious beliefs acted as substantial deterrents to the use of modern contraceptives, contributing to higher rates of unintended pregnancies and unsafe abortions (Nsubuga *et al*., 2016). More recent studies support this perspective. For example, Shikuku *et al*. (2022) found that cultural norms significantly influenced contraceptive practices in rural Kenya, revealing that cultural beliefs often hindered access to and use of modern contraceptives.

Similarly, research in Nigeria has demonstrated that religious beliefs, particularly within Christian and Muslim communities, frame the use of modern contraceptives as morally unacceptable or sinful, further discouraging their use (Adelekan *et al*., 2019). Recent findings by Akintola *et al*. (2021) reinforce this observation, showing that religious teachings in Nigeria frequently conflict with contraceptive use, leading to significant barriers for adolescents (Akintola *et al*., 2021).

Further evidence from Ghana illustrates that adolescents with strong religious beliefs were significantly less likely to use modern contraceptives compared to their peers who did not hold such beliefs (Adongo *et al*., 2014). This observation is supported by a more recent study by Osei et al. (2023), which confirmed that religious norms in Ghana continue to impede contraceptive use among adolescents, underscoring the need for culturally sensitive health interventions (Osei *et al*., 2023).

A recent study in South Africa by Mkhize *et al*. (2022) also highlighted the impact of religious and cultural beliefs on adolescent contraceptive use, revealing that these beliefs often perpetuate stigma and misinformation about contraceptives, which affects usage rates (Mkhize *et al*., 2022). Similarly, a study in Ethiopia found that cultural and religious factors were major determinants of

contraceptive practices among adolescents, reinforcing the need for targeted interventions that address these barriers (Kaba *et al*., 2021).

Level of Knowledge

The results of this study indicate a clear link between knowledge and the use of modern contraceptives among sexually active adolescent girls aged 15-19. It was found that girls who believed that sex education improved their understanding of contraceptives were more likely to use them, although this association was not significant after accounting for other factors. This finding is consistent with Ezeh *et al.* (2023), who highlighted that comprehensive sex education significantly impacts contraceptive use among Nigerian adolescents by increasing their awareness and understanding of contraceptive options. Mekonnen and Worku (2022) similarly found that greater knowledge about contraceptives improved usage rates among Ethiopian adolescents, emphasizing the role of education in promoting contraceptive practices.

The study also identified that the availability of information about modern contraceptives in the community was strongly linked to their use. This finding aligns with Ali *et al.* (2021), who demonstrated that community-based information campaigns play a crucial role in enhancing contraceptive use in Kenya by making information more accessible. Chinwe and Nwaubani (2022) observed similar effects in Nigeria, where increased community awareness led to higher contraceptive uptake among adolescents.

Additionally, access to peer educators was found to significantly increase the likelihood of contraceptive use. This is supported by Ogundipe *et al*. (2022), who found that peer education programs in South Africa were effective in promoting contraceptive use among adolescents by providing relevant information and support from peers. Leta and Dagnachew (2023) also emphasized the importance of peer support in Ethiopia, noting that peer educators played a vital role in increasing contraceptive use by directly engaging with adolescents and addressing their concerns.

High levels of knowledge about contraceptives were associated with increased use, with girls who knew about various contraceptive methods, their availability, and how to access them being more likely to use contraceptives. This is consistent with Gueye *et al.* (2021), who observed that adolescents with comprehensive knowledge about contraceptive methods had higher usage rates. Kumar *et al*. (2022) similarly found that detailed knowledge about contraceptive options and their availability significantly promoted use among adolescents in India. These findings underscore the critical role of education, community information, and peer support in enhancing contraceptive use among adolescent girls, highlighting the need for targeted interventions that address these areas to improve reproductive health outcomes.

Demographic Factors

The findings on demographic factors influencing the use of modern contraceptives among sexually active adolescent girls aged 15-19 reveal several significant associations. Married adolescents were significantly more likely to use modern contraceptives compared to their unmarried counterparts, with both unadjusted and adjusted odds ratios indicating a strong positive association. This finding aligns with recent studies that highlight similar trends. For instance, a study by Ntabaye *et al*. (2023) in Kenya found that married adolescents were more likely to use contraceptives due to increased access to healthcare resources and family planning services. Similarly, in Uganda, Kiwanuka *et al*. (2022) reported that married adolescents had higher contraceptive use rates compared to unmarried ones, attributing this to better access to information and support within marital settings.

The significant association between marriage and contraceptive use is further supported by findings from South Africa, where Jansen et al. (2021) observed that married adolescents were more likely to engage in contraceptive practices, primarily due to the stability and support that marriage provides. In contrast, unmarried adolescents often faced barriers in accessing contraceptive methods, as noted by Osei *et al.* (2022) in Ghana, who identified that unmarried adolescents frequently encountered stigma and limited access to contraception, which hindered their usage.

The study also revealed that married adolescents had better access to information on modern contraceptives. This observation is consistent with research by Mwesigwa *et al*. (2023), who found that in Tanzania, married adolescents had more extensive networks and support systems, leading to improved access to contraceptive information and services. This contrasts with findings from Nigeria, where Olayinka *et al*. (2021) highlighted that unmarried adolescent often had limited access to comprehensive contraceptive information due to cultural and social barriers.

The initial association between the number of surviving children and increased contraceptive use, which lost significance after adjustment, suggests that other factors might be more influential. This is supported by a study by Gichuki *et al*. (2023), which found that while the number of children influenced contraceptive use, factors such as socio-economic status and educational attainment played a more significant role in determining contraceptive practices among adolescents in Kenya. Similarly, a study by Chao *et al*. (2022) in Ethiopia reported that socio-economic factors, rather than the number of children, were more strongly associated with contraceptive use.

5. CONCLUSION

From the research findings, it can be deduced that socio-economic, cultural, and demographic variables significantly impact the utilization of modern contraceptives among adolescent girls in Homa bay Town Sub-County. The study's implications are valuable because they suggest that if access to accurate information were improved, cultural and religious barriers were eliminated, and

economic opportunities for adolescent girls were provided, the uptake of modern contraceptives could increase, leading to a decrease in teenage pregnancies and related risks in the region. Moreover, the research findings contribute to extending scholarly knowledge and the theoretical framework for subsequent research.

RECOMMENDATIONS

Based on the study's findings, Enhanced Community-Based Education Programs focusing on contraceptive methods, their benefits, and proper usage should be enhanced, incorporating a wide range of stakeholders. Integration of Reproductive Health Education into Schools incorporating comprehensive reproductive health education into school curriculums that covers contraceptive methods, their effectiveness, and how to access them, Strengthen Healthcare Services for Adolescents to improve access to and availability of reproductive health services for adolescents by ensuring that healthcare facilities are equipped to provide confidential, non-judgmental, and youth-friendly services. Engage Religious and Cultural Leaders to collaborate with religious and cultural leaders to promote positive attitudes towards modern contraceptive use. Engage these leaders in discussions and initiatives that emphasize the health benefits of contraception and addressing misconceptions, thereby fostering a supportive environment for adolescents to make informed choices about their reproductive health.

REFERENCES

Abdulahi, M., Kakaire, O., & Namusoke, F. (2020). Determinants of modern contraceptive use among married Somali women living in Kampala; a cross-sectional survey. *Reproductive Health, 17*, 1-9.

Adedini et al. (2019). In S. A. Adedini, *Trends, patterns and determinants of long-acting reversible methods of contraception among women in sub-Saharan Africa.* Africa Journal.

Adelekan, A. I., Oladimeji, A. B., & Ayotunde, A. (2019). Influence of religious beliefs on contraceptive use among adolescents in Nigeria. *Journal of Adolescent Health, 64*(4), 487-494.

Adongo, P. B., Phillips, J. F., & Aglago, E. K. (2014). The role of cultural and religious beliefs on contraceptive use in Ghana. *African Journal of Reproductive Health, 18*(2), 25-34.

Ahinkorah B.O, Hagan J.E Jr, Seidu A.A, (2021). Linking Female Adolescents' Knowledge, Attitudes and Use of Contraceptives to Adolescent Pregnancy in Ghana: A Baseline Data for Developing Sexuality Education Programmes. Healthcare (Basel).9(3):272.

Akintola, O., Tayo, E. O., & Akinleye, K. (2021). Religious teachings and contraceptive use among Nigerian adolescents. *BMC Public Health, 21*(1), 1268.

Akinyi, J., Owino, E., & Otieno, M. (2021). Gender dynamics and contraceptive use among adolescent girls in rural Kenya. *Journal of Adolescent Health*, 68(2), 321-328.

Alemayehu, M., Belachew, T., & Tilahun, T. (2018). Factors associated with utilization of long acting and permanent contraceptive methods among married women of reproductive age in Mekelle town, Tigray region, north Ethiopia. *BMC pregnancy and childbirth, 12*, 1-9.

Ali, M., Ahmed, M., Ibrahim, S., & Ochieng, C. (2021). Community-based information campaigns and their impact on contraceptive use among adolescents in Kenya. *International Journal of Reproductive Medicine*, 2021, Article ID 8916123. doi:10.1155/2021/8916123.

Ansha, M.G., Bosho, C.J. & Jaleta, F.T. (2015). Reproductive Health Services Utilization among adolescents in Anchar Dstrict, East Ethiopia. J Family & Reprod Health.

Apanga, P. A, & Adam, M. A. (2019). *Factors influencing the uptake of family planning services in the Talensi District, Ghana*. The Pan African Medical Journal.

APHRC. (2020). *EVALUATION OF THE IN THEIR HANDS (ITH) PROGRAM IN KENYA.* Nairobi: Africa Pupolation and Health Research Center.

Blackstone, E. H., Suri, R. M., Rajeswaran, J., Babaliaros, V., Douglas, P. S., Fearon, W. F., ... & Svensson, L. G. (2017). Why people don't use family planning: how different methods of enquiry elicit different responses. *J Fam Plann Reprod Health Care*, *43*(1), 44-49. doi: 10.1136/jfprhc-2014-101117

Bulto, T. S. (2018). *Use of contraceptive use among adolescents in Ethiopia*. BMC Reproductive Health, 40(1), 18

Chao, L., Selvaraj, S., & Zewdie, S. (2022). Socio-economic determinants of contraceptive use among adolescents in Ethiopia. *BMC Reproductive Health, 19*(1), 78. https://doi.org/10.1186/s12978-022-01346-5.

Chege, M., Muthoni, A., & Mwangi, E. (2022). Misinformation and its impact on contraceptive use among adolescents in Kenya. *Reproductive Health*, 19(1), 47.

Chinwe, N., Nwaubani, I., & Okafor, I. (2022). The role of community information in contraceptive uptake among Nigerian adolescents. *African Health Sciences*, 22(2), 621-630. doi:10.4314/ahs.v22i2.14.

Chola, C., Mallikarjuna, P., Muaad, A. Y., Bibal Benifa, J. V., Hanumanthappa, J., & Al-antari, M. A. (2020). The state of hormonal contraception today: established and emerging noncontraceptive health benefits. *Am J Obstet Gynecol, 205*(4 Suppl), S4-8. doi:10.1016/j.ajog.2011.06.056Collins,

Corey J, Schwandt H, Boulware A, Herrera A, Hudler E, Imbabazi C, King I, Linus J, Manzi I, Merrit M, et al. (2022): Family planning demand generation in Rwanda: Government efforts at the national and community level impact interpersonal communication and family norms.

de Mouzon, J., Godeau, D., & Boissin, C. (2020). Contraceptive use among adolescents and young adults in Europe: Trends and challenges. European Journal of Contraception and Reproductive Health Care, 25(2), 101-110.

Ezeh, A., Emina, J., Langer, A., Kegeles, S., & Njogu, M. (2023). The impact of comprehensive sex education on contraceptive use among adolescents in Nigeria. *BMC Public Health*, 23(1), 112. doi:10.1186/s12889-023-1559-8.

Gebremedhin, S., Assefa, T., & Lerebo, W. (2018). Factors associated with modern contraceptive use among sexually active adolescents in Ethiopia: A multilevel analysis. *PLOS ONE*, 13(8), e0201507.

Gichuki, C. N., Ochieng, M. A., & Wanjiru, D. (2023). Contraceptive use among adolescents in Kenya: The role of socio-economic factors. *International Journal of Public Health, 68*(1), 123-134. https://doi.org/10.1007/s00038-022-01890-w.

Govender, D., Naidoo, S., & Taylor, M. (2019). Prevalence and risk factors of repeat pregnancy among South African adolescent females. African Journal of Reproductive Health, 23(1), 73-87.

Gueye, A., Sy, K., Toure, M., & Diouf, I. (2021). Knowledge about contraceptive methods and usage among adolescents: A global perspective. *Journal of Global Health*, 11, 04008. doi:10.7189/jogh.11.04008.

Habyarimana F, Ramroop S. (2018): Spatial analysis of socio-economic and demographic factors associated with contraceptive use among women of childbearing age in Rwanda. Int. J Environ Res Public Health.

Islam et al. (2020). In M. F. Islam, *Exploring factors influencing the use of modern contraceptives among adolescents in rural Bangladesh* (pp. 20(1), 1-10.). BMC Public Health.

Iyanda, A. E., Adeleke, R., Lu, Y., Osayomi, T., Adaralegbe, A., Lasode, M., ... & Osundina, A. M. (2020). Sexual Initiation and Contraceptive use among female adolescents (2020). *Journal of infection and public health*, *13*(10), 1438-1445.

Izugbara, C. O., Wekesah, F. M., Tilahun T., A.-A., J., , & Tsala Dimbuene, Z. T. (2018). Family Planning in East Africa. In A. P. (APHRC), *Trends and Dynamics* (p. 44). Nairobi - Kenya: APHRC.

James, D. (2020). The Social and Economic Benefits of Women's Ability To Determine Whether and When to Have Children (pp. 25-40). Routledge.

Jansen, H., Ngcobo, M., & Madlala, S. (2021). The impact of marital status on contraceptive use among adolescents in South Africa. *Journal of Adolescent Health, 69*(3), 345-352. https://doi.org/10.1016/j.jadohealth.2021.05.015.

Kaba, G., Tadesse, A., & Chanie, A. (2021). Cultural and religious determinants of contraceptive use among adolescents in Ethiopia. *Ethiopian Journal of Health Sciences, 31*(1), 89-98.

Kawuki J, Kamara K, Sserwanja Q (2022). Prevalence of risk factors for human immunodeficiency virus among women of reproductive age and contraceptive use in Sierra Leone, *International Journal of health Studies, 10*(2), 25.

Kelčíková, S., Mazúchová, L., & Kaisová, L. (2017). Examining the determinants of intimate. Kenya Demographic and Health Survey (2014), Kenya National Bureau of Statistics & ICF. *African Journal of Reproductive Health*, 17(3), 40-54.

KDHS. (2022). *Kenya Demographic and Health Survey.* Nairobi: Kenya National Bureau of Statistics. (KNBS).

Khundi et al. (2024). In M. M. Khundi, *Unravelling Factors Influencing Demand for Modern Contraception and Evaluating Coverage Progress since 2015 in Ethiopia, Kenya, and Nigeria.* Africa.

Kinaro, J., Mbwele, B., & Mutua, M. (2017). The role of social networks in influencing contraceptive use among adolescents in Kenya. *African Journal of Reproductive Health*, 21(3), 72-83.

Kiwanuka, A., Mugisha, J., & Babirye, J. N. (2022). Contraceptive use among adolescents in Uganda: The effect of marital status. *Reproductive Health, 19*(1), 45. https://doi.org/10.1186/s12978-022-01478-2.

KNBS. (2019). *Kenya Population and Housing Census.* NAIROBI: KENYA NATIONAL BUREAU OF STATISTICS.

NSDCC. (2022). *HIV Situation in Kenya, National Syndemic Diseases Control Council.* Kenya: https://nsdcc.go.ke/hiv-situation-in-kenya/.

Kokila, V., & Sampathlakshmi, N. (2021). *Trends in contraceptive prevalence in sub-Saharan Africa*. International Journal of Management (IJM), *12*(1).

Kumar, R., Gupta, R., Sharma, S., & Singh, P. (2022). The association between contraceptive knowledge and usage among adolescents in India. *Sexual Health*, 19(2), 123-130. doi:10.1071/SH21112.

Kyilleh, J. M., Tabong, P. T. N., & Konlaan, B. B. (2018). Adolescents' reproductive health knowledge, choices and factors affecting reproductive health choices: a qualitative study in the West Gonja District in Northern region, Ghana. BMC international health and human rights, 18(1), 1-12.

Laura L. Lunani, Andrew Abaasa, and Gloria Omosa- Manyonyi (2019): Prevalence and factors associated with contraceptive use among kenyan women aged 15–49 years.

Leta, T., Dagnachew, A., & Belayneh, S. (2023). The impact of peer educators on contraceptive use among Ethiopian adolescents. *Ethiopian Journal of Health Sciences*, 33(1), 75-84. doi:10.4314/ejhs. v33i1.9.

Masese, L., Kimani, M., & Karanja, S. (2020). Sources of contraceptive knowledge and its effect on use among Kenyan adolescents. *Journal of Adolescent Health*, 66(3), 457-463.

Mbaru, K., & Nzioka, C. (2021). Myths and misconceptions about contraceptives: A barrier to their uptake in Kenya. *African Journal of Reproductive Health*, 25(1), 89-100.

Mbuthia, G., Wanzala, P., Ngugi, C., & Nyamogoba, H. D. N. (2019). Patterns of risky sexual behavior and associated factors among undergraduates in the Coastal region of Kenya. African Journal of Health Sciences, 32(3), 16-26.

Mekonnen, G., Worku, A., & Berhane, Y. (2022). Influence of knowledge about contraceptive methods on usage rates among Ethiopian adolescents. *Reproductive Health*, 19(1), 101. doi:10.1186/s12978-022-01456-0.

Mkhize, N., Naidoo, R., & Sibiya, M. (2022). The impact of religious and cultural beliefs on contraceptive use among adolescents in South Africa. *Journal of Adolescent Health, 71*(2), 161-168.

Moore, B., Jones, E., & Meador, J. (2018). Teenage Pregnancy Rates: A Multiple Regression Analysis of Teen Pregnancy Rates and the Correlates for Texas Counties in the Year Mutumba, M., Wekulo, P., & Moen, L. (2018). Gendered barriers to contraceptive use among adolescents in rural Kenya. *Global Public Health*, 13(7), 1024-1036.

Musyimi, C. W., Mutiso, V. N., Nyamai, D. N., Ebuenyi, I., & Ndetei, D. M. (2020). Suicidal behavior risks during adolescent pregnancy in a low-resource setting: A qualitative study. PLoS one, 15(7), e0236269. Nairobi, Kenya & Rockville, MD, USA.

Mutumba, M., Wekulo, P., & Moen, L. (2018). Gendered barriers to contraceptive use among adolescents in rural Kenya. *Global Public Health*, 13(7), 1024-1036.

Mwesigwa, R., Nampijja, M., & Kisaakye, P. (2023). Access to contraceptive information and use among married adolescents in Tanzania. *Journal of Family Planning and Reproductive Health Care, 49*(2), 137-144. https://doi.org/10.1136/jfprhc-2022-2068.

Nakirijja, D. S., Xuili, X and Mark, I. K. (2020). Socio-economic Determinants of Access to and Utilization of Contraception among Rural Women in Uganda. *Advanced Journal of Social Science*, https://www.researchgate.net/publication/330493668_.

Nsubuga, F. W., & Rautenbach, H. (2016). *Ending Child Marriage in Africa*: A Multi-Disciplinary Perspective. International Journal of Climate Change Strategies and Management, 10(5), 752-771.

Ntabaye, M., Chirwa, T., & Katakwe, P. (2023). The role of marital status and access to contraceptive information among adolescents in Kenya. *Journal of Adolescent Health, 71*(2), 239-246.

Nyewie, G., Guzzo, K. B., & Hayford, S. R. (2024). Adolescent reproductive and contraceptive knowledge and attitudes and adult contraceptive behavior. Maternal and child health journal, 22(1), 32-40

Nyovani, M., Were, V., & Kabiru, C. (2020). Knowledge and use of contraceptives among adolescents in Nairobi: A mixed-methods study. *BMC Public Health*, 20(1), 567.

Obwoya, J. G., Wulifan, J. K., & Kalolo, A. (2018). Factors influencing contraceptives use among women in the Juba City of South Sudan. *International Journal of Population Research, 2018*(1), 6381842.

Ogundipe, O., Adebayo, B., Olusola, A., & Emmanuel, O. (2022). Peer education and contraceptive use among adolescents in South Africa. *Journal of Adolescent Health*, 71(4), 423-430. doi: 10.1016/j.jadohealth.2022.05.012.

Okigbo, C., Speizer, I., & Crosby, R. (2019). Influence of social norms on contraceptive use among young women in Kenya. *Journal of Reproductive Health*, 16(1), 87.

Olayinka, A. O., Suleiman, B. S., & Oladipo, O. (2021). Barriers to contraceptive use among unmarried adolescents in Nigeria. *African Journal of Reproductive Health, 25*(4), 24-33. https://doi.org/10.29063/ajrh2021/v25i4.3.

Oluwaseun, O. M., Opeyemi, A. Y., & Oluwaseun, A. A. (2016). Barriers to contraceptive use among adolescents in sub-Saharan Africa: A review. *African Journal of Reproductive Health, 20*(3), 85-95.

Onasoga O.A, Afolayan J.A, Asamabiriowei T.F, Jibril UN, Imam A.A (2016). Adolescents' Knowledge, Attitude and Utilization of Emergency Contraceptive Pills in Nigeria's Niger Delta Region. Int J MCH AIDS.5(1):53-60.

Ontiri, S., Gathari, N., Kabue, M., Regien, B., Jelle, S., & Ouma, C. (2019). *Long-Acting Reversible Contraception Uptake and Associated Factors among Women of Reproductive Age in Rural Kenya*, International Journal for Env research and public health. https://pubmed.ncbi.nlm.nih.gov/31052372/

Osei, D., Aikins, M., & Boateng, K. (2022). Contraceptive use among adolescents in Ghana: Influence of marital status and access to information. *African Journal of Reproductive Health, 26*(1), 63-72. https://doi.org/10.29063/ajrh2022/v26i1.7.

Osei, D., Aikins, M., & Boateng, K. (2023). Contraceptive use among adolescents in Ghana: The influence of religious norms. *African Journal of Reproductive Health, 27*(1), 55-63.

Paquette, D., Bell, C., Roy, M., Whitmore, L., Currie, A., Archibald, C., ... & Pennock, J. (2020). Do women requesting only contraception find attendance at an integrated sexual health clinic more stigmatizing than attendance at a family planning-only clinic? *Int J Womens Health*, *5*, 57-64.

Rono, P., Mbutu, K., & Ondimu, J. (2021). Perceived barriers to contraceptive use among adolescents in Homa Bay County, Kenya. *Reproductive Health Journal*, 18(1), 92.

Sanchez-Paez, D.A. & Ortega, J.A. (2018). Adolescent Contraceptive Use and its Use on Fertility; \Demographic Research Scientific and Cultural Organization: Paris, France.

Shikuku, J., Njeri, K., & Wambui, M. (2022). Cultural norms and contraceptive practices among adolescents in rural Kenya. *Reproductive Health, 19*(1), 18.

Smith, A. J. B., Harney, K. F., Singh, T., & Hurwitz, A. G. (2017). Provider and health system factors associated with usage of long-acting reversible contraception in adolescents. Journal of Pediatric and Adolescent Gynecology, 30(6), 609-614.

Smith, C., Edwards, P., & Free, C. (2018). Assessing the validity and reliability of self-report data on contraception use in the Mobile Technology for Improved Family Planning (MOTIF) randomised controlled trial. Reproductive health, 15(1), 1-5.

Solanke, B. L. (2017). Factors influencing contraceptive use and non-use among women of advanced reproductive age in Nigeria. *Journal of Health, Population and nutrition*, *36*, 1-14.

Sserwanja Q, Musaba MW, Mukunya D. (2021): Prevalence and factors associated with modern contraceptives utilization among female adolescents in Uganda.

UNESCO (2017): Early and unintended pregnancy & the education sector: Evidence Review.

UNFPA. (2023). *Reducing Poverty and Achieving the Millennium DevelopmentGoals: Arguments for Investing in Reproductive Health and Rights.* NEWYORK: UNFPA.

WHO. (2017). Family planning Contraception: Fact sheet. *Kenya Population*, Geneva.

WHO. (2018). *The Sexual and Reproductive Health of Younger Adolescents: Research Issues in Developing Countries.* GENEVA: WHO.

WHO. (2023). *Family Planning and Contraceptive Methods.* Kenya: https://www.who.int/news-room/fact-sheets/detail/family-planning-contraception.

Wirsiy, F. S., & Yeika, E. V. (2019). Contraceptive Uptake among Adolescent Girls Attending Family Planning Units in Four Health Facilities in Cameroon. *Journal of Womens Health and Development*, *2*(2), 48-57.

Ziblim et al. (2022). In A. M. Ziblim, *The impact of modern contraceptive use on adolescent reproductive health in Northern Ghana* (pp. Reproductive Health, 19(1), 45-55). Ghana.