International Journal of Community Medicine and Public Health
Githogori NW et al. Int J Community Med Public Health. 2025 Jan;12(1):80-89
http://www.ijcmph.com
pISSN 2394-6032 | eISSN 2394-6040

DOI: https://dx.doi.org/10.18203/2394-6040.ijcmph20244003

Original Research Article

Socio-demographic and health facility factors influencing utilization of reproductive health services among adolescents aged 15-19 years in Mombasa County, Kenya

Nancy W. Githogori[1]*, Mary W. Gitahi[2], Shadrack A. Yonge[3], Bibi A. Bakari[4]

[1]Department of Family Medicine, Community Health and Epidemiology, Kenyatta University, Kahawa Kenya
[2]Department of Family Medicine, Community Health and Epidemiology, Kenyatta University, Kahawa Kenya
[3]Department of Environment and Health Sciences, Technical University of Mombasa, Mombasa, Kenya
[4]Department of Health, Kilifi County

Received: 05 November 2024
Revised: 13 December 2024
Accepted: 24 December 2024

***Correspondence:**
Dr. Nancy W. Githogori
E-mail: githogori2013@gmail.com

Copyright: © the author(s), publisher and licensee Medip Academy. This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

ABSTRACT

Background: Globally, around 16 million teenagers give birth each year, with 95% of them coming from developing nations like Kenya, adolescents deal with a variety of sexual and reproductive health issues. Adolescent in Kenya frequently experiences serious health issues like unintended pregnancy, unsafe abortions, and sexually transmitted infections.

Methods: A cross-sectional quantitative survey was conducted in Mombasa between August 2022-March, 2023. A validated questionnaire was used to collect data. Data collected were analysed using chi-square, Pearson's correlation and multivariate linear regression tests. A total of 398 participants completed the survey questionnaire. A $p<0.05$ was statistically significant.

Results: Major services utilized by respondents HIV testing and counseling 103 (13.2%) and condom use 61 (21.3%). Most reasons given by respondents for not seeking SRHS in health facilities were lack of need for the services (63.1%), no knowledge of where to go (43.20%), the lack of awareness of the availability of the services (27.90%), Stigma (22.50%). Factors that influence health facility utilization were provision of privacy/ confidentiality and provision of enabling environment to ask question which was statistically significant at ($x2 =3.963$, df=1, $p=0.047$) and ($x2=5.695$, df=1, $p=0.017$) respectively. Regarding socio-demographic variables, religion, education level and income were statistically significant ($p<0.05$).

Conclusion: These findings underscore the importance of tailored interventions and targeted approaches to address the multifaceted factors influencing SRH service utilization among adolescents. Policymakers and healthcare practitioners can develop comprehensive strategies to promote access and utilization of SRH services among adolescents.

Keywords: Kenya, Reproductive health, Service utilization, Factors

INTRODUCTION

Adolescents aged 10 to 19 years in Kenya are an underserved population in the health system, yet represent a large proportion of the population (24%).[1,2] Adolescent girls, in particular, need access to high-quality adolescent and youth-friendly health services (AYFS), as they experience a substantial burden of adverse sexual and reproductive health (SRH) outcomes.[3,4] Adolescent girls in Kenya have high rates of unintended pregnancy undergo unsafe abortions.[5-8] Across sub-Saharan African countries, adolescents experience structural, health

facility, community, interpersonal, and individual level barriers and facilitators to accessing and utilizing SRH services.9,10 Health facilities may lack dedicated adolescent-friendly spaces or have staff and providers that stigmatize and discriminate against adolescents.[11-13] Selected socio-demographic characteristics like age, and marital status were also found to affect the sexual and reproductive health information-seeking behaviour of the students.[14] A study by Copen, found 7% of persons aged 15–25 would not seek sexual or reproductive health care because of concerns that their parents might find out about it.[15] A study done in Malawi by Mandiwa et al, found out that women in the age group 20–24 years were 93% (AOR = 1.93; 95% CI = 1.73–2.16) more likely to use contraceptives compared to adolescents in the age group 15–19 years.[16]

Religious norms to some extents have played a role in controlling the youth from involving themselves in indiscriminate sex in Kenya but these efforts have been eroded by increased urbanization which has led to most youth living on their own without religious guidance and control.[17] Research done in Kenya revealed that religion played a key role in impending access to reproductive health services among the respondents, with 72% reporting to have been prohibited from seeking reproductive health services.[18]

A research by Mochache et al, found religion and socio-demographic factors affects uptake and utilization of contraception.19 A study in Uganda found respondents who said that their religion does not approve youth to seek AYSRH services had 5% fewer chances of having utilized AYSRH services than those whose religions approve.[20]A study done in Nigeria by Nyandwi et al, found adolescents across religious affiliations generally displayed negative attitudes towards premarital sex and also the use of contraceptives because that was meant to be the norm.[21] Yada et al, found found the change in knowledge score was statistically significant and there was a marked improvement in SRH knowledge of school going adolescent after the educational intervention was given.22 A study by, Birhan et al. respondents from Muslim background were 0.56 times less likely to seek SRHS compared to respondents from other categories of religion such as traditional and protestant (p=0.026).[23] The influence of religion and religious norms in the use of contraceptives has been documented elsewhere.[24-26]

Compared to the state and society, religion has the highest socialization impact on sex and sexual behaviours in Ghana.[27] Premarital sex and other forms of illicit sexual behaviours are considered sinful within religious circles. The use of contraceptives contradicts the doctrines of some Christian and Muslim denominations as it is believed to thwart God’s plans for one’s reproductivity. It is also perceived as abortion when contraceptives are used to prevent children from coming, and abortion is considered murderous in religious circles.[28] Further, it is considered to promote sexual promiscuity among unmarried young women potentially.

Despite the well-developed national policies and guidelines for the provision of AYFS, it remains unclear if adolescent girls in Mombasa County are accessing and utilizing SRH services. To fill this gap in knowledge, this study therefore seeks to discuss socio-demographic and health facility barriers that influence utilization of SRH information and services among adolescents and youth 15-19 years in Mombasa County. The study aimed to assess socio-demographic and health facility factors influencing the use of youth-friendly reproductive health services among adolescents in Mombasa County, Kenya.

METHODS

Study design

A descriptive cross- sectional study design combining both qualitative and quantitative was used.

Study place

The study was conducted in Mombasa County, Kenya. It is the backbone of tourism in Kenya and is the most popular East Africa City with a population of 939,370 people.

The estimated population of adolescents aged 15-19 years in Mombasa County was 103,386 whereby girls were reported to be 54,865 and boys were 48,521 while the average HIV prevalence among the same age bracket was reported at 6% (Mombasa County HIV & Aids Strategic plan 2016).

Study duration

The study was conducted between August 2022 to March 2023.

Study population

The source population comprises adolescents residing in Mombasa County, ranging from ages 15 to 19 years old. The study population comprised all randomly selected adolescents within the selected study area during the selected study period who met the inclusion criteria.

Inclusion criteria

Adolescents aged 15-19 years residing in Mombasa County at least for the last 6 months prior to the study and willing assent to participate in the study.

Exclusion criteria

All adolescents who either will not assent to participate in the study, or their parents will refuse to give their informed consent.

Sample size

For this study, the sample size will be determined using Fischer et al (1998) formula.

N= Z2 X pq/d2
N= Desired sample size
Z= The standard normal distribution at 95% confidence level (standard value f 1.96)
P= Estimate of adolescents in need of reproductive health services. In this case, an estimate for Nyali Sub County is not known therefore 50% (0.5) will be used.
d= Permitted error of margin 0.05 (5% if the confidence level is 95%)
q= 1- P
D= Level of precision (+5 or –5% (0.05))
Substituting the figures, N= (1.96)2(0.5) (0.5)/ $(0.05)^2$= 384
5% was added to take care of attrition adding it up to 404. The responding rate was 98.5%

Sampling procedure

Mombasa County was purposively selected because of cases of teenage pregnancy and HIV/AIDS cases. The sampling frame was the list of all adolescents between ages 15-19 years from the four randomly selected adolescents of Mombasa Sub Counties.

Data collection techniques

A structured pre-tested questionnaire was applied to participants who consented to the study drawn from all the study sites. The questionnaire was administered either in English or Kiswahili depending on the preference of each respondent.

Data management

Microsoft Excel sheets were used for entry and storage of quantitative data. Cleaning of data and editing was done to check inconsistent and missing values noted and adjusted before coding.

Ethical consideration

The Graduate School of Kenyatta University gave the study a go ahead. Ethical clearance was provided by Kenyatta University Ethics and Review Committee (KUERC). A permit for research was sought from the National Council for Science, Technology and Innovation (NACOSTI).

Statistical analysis

Version 20.0 of Statistical Package for Social Sciences (SPSS) software assisted in analyzing data descriptively. Frequency tables, graphs, charts and percentages helped in presentation of data. Chi-square was employed to generate inferential statistics with cross tabulations used in presentations. Odds ratios (ORs) and their 95% confidence intervals (CIs) were used to quantify the associations between variables. A $p<0.05$ was considered statistically significant.

RESULTS

Socio demographic factors associated with reproductive health services utilization among adolescents aged 15-19 years in Mombasa. Table 1 shows the socio demographic factors associated with reproductive health services utilization among adolescents aged 15-19 years in Nyali, Mombasa County. Although not statistically significant (x2=0.626, df=1, p= 0.429), majority of both female 213 (82.2%) and male 109 (78.4%) affirmed that they utilized reproductive health services at the respective health facilities.

In regard to age, the vast majority 92 (88.5%) of those who utilized reproductive health services were aged 16 years, this difference too was not statistically significant (x2=8.647, df=4, p= 0.071). Respondents who were from a family size of 6-10 people 149 (83.2%) constituted the vast majority of those who utilized reproductive health services and this difference too was not statistically significant (x2 = 1.191, df=2, p= 0.551).

Additionally, respondents who identified as Christian 219(85.9%) constitute the majority of those who utilized reproductive health services as compared to their counterparts who identified as Muslim 103 (72%), and this difference was statistically significant (x2=11.383, df=1, p=0.001). Compared to those who were currently not attending regular classes 58 (74.4%), the majority of respondents 264 (82.5%) who used reproductive health services were currently attending regular classes, this difference was not statistically significant (x2=2.189, df=1, p=0.139).

In comparison to other groups, respondents who were in secondary education level made up the biggest percentage 164(89.1%) of those who used reproductive health services and this difference was statistically significant (x2=16.348, df=2, p=0.001). In a similar vein, when compared to those respondents who were not engaging in any income-generating activities, those who did so made up the largest percentage of those who used reproductive health services 93(92.6%) and this difference was statistically significant (x2=6.432, df=1, p= 0.011).

Reproductive health service utilization among adolescents in Mombasa Country

Almost two-third (72.11%) of the respondents had ever visited a health facility for SRHS, though 137 (47.6) of them did not visit in the last 12 months. The services sought most are HIV testing 103 (35.9) and condom distribution 61 (21.3) while the least sought is counselling services 10 (3.5%), as shown in Table 2.

Respondents' reasons for not seeking sexual and reproductive health services in health facilities

Most reasons given by respondents for not seeking SRHS in health facilities are lack of need for the services (63.1%), no knowledge of where to go (43.20%), the lack of awareness of the availability of the services (27.90%) and shame/stigma (22.50%) while the reason listed least by the respondents was culture/Religion against SRHS use (10.80%) as shown in Table 3.

Health facility factors influencing utilization of reproductive health services among adolescents aged 15-19years in Mombasa County

As shown in Table 4, a vast proportion of the respondents agreed that health care service providers were friendly 360 (90.45%) and were satisfied with the way the health facilities were equipped to offer satisfactory services 365 (91.71%). Majority of the respondents also agreed that the cost-of-service provision to adolescents were either free or affordable 350 (87.94%), health facilities were conveniently located for ease of access 337 (84.67%) and health care providers ensure privacy and confidentiality when one visit health facilities 377 (94.72%). On the other hand, more than half 221 (55.53%) of the respondents didn't feel comfortable enough to ask any questions regarding sexual and reproductive health services.

Health facility systems factors associated with reproductive health services utilization among adolescents aged 15-19 years in Mombasa County

Contrary to the opinions of their peers, who claimed that the healthcare personnel were unfriendly, the majority of respondents 298(81.1%) who used reproductive health services said that those who provided the care were friendly, this difference was not statistically significant ($x2$ =0.011, df=1, p=0.916). The significant majority 299(82.8%) of respondents who indicated that the health facilities were well-equipped to provide satisfactory services were those who used reproductive health care. The use of reproductive health services was similarly high among respondents 287(81.1%) who agreed that the cost of providing services to adolescents were free or affordable, and 274(81.3%) among respondents who said that health facilities were conveniently located for ease of access. Furthermore, the vast majority 309(82%) of respondents who used reproductive health services also stated that the health care providers made sure that one's privacy and confidentiality were protected when they visited health facilities, this difference was statistically significant ($x2$ =3.963, df=1, p=0.047). Similarly, the utilization of reproductive health services was high 153(86.4%) among the respondents who reported that they felt comfortable enough to ask any questions regarding sexual and reproductive health services, this difference too was statistically significant ($x2$=5.695, df=1, p=0.017) (Table 5).

Independent factors associated with reproductive health services utilization among adolescents

Further, logistic regression was employed to evaluate association between reproductive health services utilization among adolescents aged 15-19 years with the variable within sociodemographic factors and health facility systems factors whose p value were <0.05 in the bivariate analysis. As shown in Table 6, respondents who identified as Muslim had a reduced odd of 58% (AOR=0.42, 95% CI: 0.22-0.77, p=0.006) of utilizing reproductive health services as compared to their counterparts who identified as Christians. When compared to respondents who were in lower primary school, those in upper primary and secondary school were 2.09 times (AOR=2.09, 95%CI: 0.57-7.11, p=0.243) and 5.21 times (AOR=5.21, 95% CI:1.41-17.92, p=0.009) more likely to use reproductive health services, respectively.

Similarly, respondents who were engaging in income generating activities were 3.12 times (AOR=3.12, 95%CI:1.04 -13.55, p=0.010) more likely to utilized reproductive health services as compared to those who were not engaging in any income generating activities. In a similar vein, respondents who felt comfortable enough to inquire about sexual and reproductive health services were 1.81 times (AOR=1.81, 95%CI: 1.06-3.15, P=0.032) more likely to use such services than their counterparts who did not feel comfortable enough to inquire about such services.

Table 1: Socio demographic factors associated with reproductive health services utilization among adolescents aged 15-19 years in Mombasa County.

Characteristic	Utilized reproductive health services		Chi-square (x^2), df, P value
	Yes, N (%)	No, N (%)	
Gender			
Female	213 (82.2)	46 (17.8)	0.626, 1, 0.429
Male	109 (78.4)	30 (21.6)	
Age (in years)			
15	72 (72.7)	27 (27.3)	8.647, 4, 0.071
16	92 (88.5)	12 (11.5)	

Continued.

Characteristic	Utilized reproductive health services		Chi-square (x^2), df, P value
	Yes, N (%)	No, N (%)	
17	66 (82.5)	14 (17.5)	
18	46 (82.1)	10 (17.9)	
19	46 (78)	13 (22)	
Family size			
1-5	170 (79.1)	45 (20.9)	1.191, 2, 0.551
6-10	149 (83.2)	30 (16.8)	
Above 10	3 (75)	1 (25)	
Religion			
Christian	219 (85.9)	36 (14.1)	11.383, 1, 0.001*
Muslim	103 (72)	40 (28)	
Currently attending regular school			
Yes	264 (82.5)	56 (17.5)	2.189, 1, 0.139
No	58 (74.4)	20 (25.6)	
Current Education level			
Lower primary	8 (61.5)	5 (38.5)	16.348, 2, 0.001*
Upper primary	92 (74.8)	31(25.2)	
Secondary	164 (89.1)	20 (10.9)	
Engaged in income generating activity			
Yes	63 (92.6)	5 (7.4)	x^2= 6.432, 1, 0.011*
No	259 (78.5)	71 (21.5)	

*Statistically significant (p value<0.05)

Table 2: Reproductive health service utilization among adolescents age 15-19 years in Mombasa County (n=398).

	Yes	No
Ever visited a health facility for any sexual and reproductive health service	287 (72.11%)	111 (27.89)
Visited a health facility for SRH service in the last 12 months		
Yes, once	100 (34.8%)	
No, not in the last 12 months	137 (47.6)	
Yes, two or more times	50 M (17.4)	
Reproductive health services sought at health facilities (287)		
Contraceptive use	41 (14.3)	246 (85.7)
Diagnosis and treatment of STIs	38 (13.2)	249 (86.8)
HIV testing and counseling service	103 (35.9)	184 (64.1)
Abortion services	13 (4.5)	274 (95.5)
Maternal health service (ANC, delivery, PNC)	21 (7.3)	266 (92.7)
Counseling service	10 (3.5)	277 (96.5)
Condoms distribution	61 (21.3)	287 (72.11)
Utilization of RH service	Users	287 (72.11)
	Non-Users	111 (27.89)

Table 3: Respondents' reasons for not seeking sexual and reproductive health services in health facilities.

Reasons for not seeking RH services in health facilities (n=111)	Frequency	%
No knowledge of where to go	48	43.2
Culture/Religion against SRHS use	12	10.8
Unfriendly staff's attitude	14	12.6
Lack of awareness of the availability of the services	31	27.9
Shame/Stigma	35	22.5
Services are not youth-friendly	14	12.6
No need for the services	70	63.1
SRHS are for married people	13	11.7
Lack of money to pay for the services	27	24.3
Most services are tailored for females	15	13.5

*Multiple Responses, SRHS=Sexual and reproductive health services

Table 4: Health facility factors influencing utilization of reproductive health services among adolescents aged 15-19 years in Mombasa County.

Characteristic	Frequency (N)	(%)
Health care service providers friendly (n=398)		
Yes	360	90.45
No	38	9.55
Health facilities well equipped to offer satisfactory services (n=398)		
Yes	365	91.71
No	33	8.29
Cost of service provision to adolescents free or affordable (n=398)		
Yes	350	87.94
No	48	12.06
Health facilities conveniently located for ease of access (n=398)		
Yes	337	84.67
No	61	15.33
Health care providers ensure privacy and confidentiality when one visit health facilities (n=398)		
Yes	377	94.72
No	21	5.28
Felt comfortable enough to ask any questions regarding sexual and reproductive health services (n=398)		
Yes	177	44.47
No	221	55.53

Table 5: Health facility factors associated with reproductive health services utilization among adolescents aged 15-19 years in Mombasa County.

Characteristic	Utilized reproductive health services		Chi-square (x^2), df, P value
	Yes, N (%)	No, N (%)	
Health care service providers friendly			x^2= 0.011, df=1 p=0.916
Yes	298(81.1)	68(18.9)	
No	30(78.9)	8(21.1)	
Health facilities well equipped to offer satisfactory services			x^2=3.770, df=1, p=0.052
Yes	299(82.8)	62(17.2)	
No	22(66.7)	11(33.3)	
Cost of service provision to adolescents free or affordable			x^2=0.091, df=1, p=0.763
Yes	287 (81.1)	67 (18.9)	
No	35 (79.5)	9 (20.5)	
Health facilities conveniently located for ease of access			x^2= 0.002, df=1, p=0.9664
Yes	274 (81.3)	63 (18.7)	
No	48 (78.7)	13 (21.3)	
Health care providers ensure privacy and confidentiality when one visit health facilities			x^2= 3.963, df=1, p=0.047*
Yes	309 (82)	68 (18)	
No	13 (61.9)	8 (38.1)	
Felt comfortable enough to ask any questions regarding sexual and reproductive health services			x^2=5.695, df=1, p=0.017*
Yes	153 (86.4)	24(13.6)	
No	169 (76.5)	52(23.5)	

*Statistically significant (p value<0.05)

Table 6: Independent factors associated with reproductive health services utilization among adolescents age 15-19 years in Mombasa County.

Predictor characteristics	COR (95% CI), P value	AOR (95% CI), P value
Socio -demographic characteristics		
Religion		
Christian	1	1
Muslim	0.42(0.25 - 0.70), 0.001*	0.42(0.22 - 0.77), 0.006*

Continued.

Predictor characteristics	COR (95% CI), P value	AOR (95% CI), P value
Current education level		
Lower primary	1	1
Upper primary	1.85(0.51 – 6.14), 0.326	2.09(0.57 - 7.11), 0.243
Secondary	5.12(1.43 - 16.95), 0.016*	5.21(1.41 - 17.92), 0.009*
Engaged in income generating activity.		
No	1	1
Yes	3.45(1.34 – 8.91), 0.010*	3.53(1.36 - 9.17),0.010*
Health facility factors		
Health care providers ensure privacy and confidentiality when one visit health facilities		
No	1	1
Yes	2.79(1.06 - 6.70), 0.039*	2.24 (0.84 - 5.63), 0.093
Felt comfortable enough to ask any questions regarding sexual and reproductive health services		
No	1	1
Yes	1.96(1.16 - 3.37), 0.012*	1.81 (1.06 - 3.15), 0.032*

*Statistically significant (p value<0.05)

DISCUSSION

The findings of this study reveal that More than half (72.11%) of the respondents have visited a health facility for sexual and reproductive health services, which contradicts the result of a study done among young people in Ethiopia.[29] This study's finding of the level of RH service utilization is also higher than the studies done in other African countries, such as Nigeria 51% and Ghana 55.8%.[30,31] This difference may be attributable to the difference in the study area, socio-cultural factors, service delivery systems, and the openness of the study participants between areas. This could also be explained by the fact that Ethiopian society considers youths to be too young to visit a health institution due to cultural influences, and visiting the institution for specific sexual and reproductive health services may be considered shameful.

The SRHS sought most at the health facilities by the respondents are information/counseling, HIV testing, and condom services. In contrast, the least sought service is other abortion services which corroborates with a past study among secondary school students in Nekemte town, Ethiopia.[32] This could be because they are in their most inquisitive stage of life and, as such, would have a great quest for information about their reproductive health and possible ways of having wholesome sexual and reproductive health. Also, most of the respondents have ever had sex, so seeking condom services by them is not surprising and since most of them are likely not to be married, it is unlikely that they would seek family planning services from health facilities.

As in a past study among young people in Southwest Oromia, Ethiopia, the health facilities used mainly for SRHS are government hospitals, pharmacies and private hospitals which could be due to the availability of these facilities.[29] As recorded in past studies among young people in Nepal, adolescents in Southeast Nigeria, rural adolescents in Northwest Nigeria and adolescents in Kenya, perceived lack of need for the services, no knowledge of where to go, lack of awareness of the availability of the service, shame/stigma and lack of money to pay for the services were the major reasons preventing the respondents from seeking sexual and reproductive health services in health facilities.[33]

In this study, Factors significantly associated with the reproductive health services utilization among adolescents in this study include religious identification, education, and engagement in income-generating activities. The study showed that religious identity played an important role in obtaining these reproductive health services among adolescents. Respondents who identified as Muslim showed a lower likelihood of using reproductive health care compared to their Christian counterparts. These results highlight the importance of considering cultural and religious factors that may influence health-seeking behavior, which may involve values, beliefs, or assumptions associated with reproductive health services. Similar to findings from other sites.[34]

The findings of our study indicate that the respondents who had a secondary level of education were five times more likely to utilize sexual reproductive health services than primary level who were two times. This implied that RHS were more utilized by adolescents with high levels of education which could be attributed to being easy to accept any health care services given, unlike the highly educated adolescents who were complacent and believed that they knew more yet it wasn't the case. This is inconsistent with the results of who reported that adolescents who had low levels of education had higher odds of utilizing RHS due to fear of HIV contraction and pregnancies.[35]

The low educated such as primary children thought the moment, they get pregnant they drop out of school unlike those at tertiary institutions. As educational attainment increased, so did the likelihood of using reproductive health interventions. Respondents in primary and secondary schools expressed the likelihood of using these

services, suggesting that education can be an empowering factor in improving awareness, knowledge, and access to reproductive health resources. Participation in income-generating activities was also shown to be positively associated with adolescent use of reproductive health services. This could mean that financial empowerment enables individuals to prioritize their health and make informed decisions about their reproductive well-being. Additionally, similar to the findings of studies from different sites.[36]

In this study, privacy and comfort also emerged as crucial factors tied to service utilization. Participants who reported that healthcare providers ensured privacy and confidentiality, as well as those who felt comfortable inquiring about sexual and reproductive health services, exhibited higher odds of using these services. This underscores the significance of creating a supportive and non-judgmental environment within healthcare settings.

Competence of health service providers assessment was basically perception based. Adolescents who thought the providers were competent reported use of services more than those who thought otherwise. Those who perceived the health service providers as friendly and the quality of services as satisfactory were more liked to attend antenatal and skilled birth attendance services.

This is similar to a study which found that well-trained health workers and quality of services are associated with increased utilization of RH services.[37,38] Other factors that influence the utilization of the selected RH services include individual barriers such as personal attitudes towards health service providers.

Adolescents who live close to a health facility are more likely to use reproductive healthcare services than those who live a long distance away. Supporting this finding, a study conducted in Nigeria revealed that the further a patient lives from a health facility, the less likely they are to utilize the services.[39] A study in Kenya also identified a long distance from the facility or care source as a barrier to the use of health services.[40] This is because the preferred care source is often the closest one. Moreover, in the African context, the principal barriers to accessibility are transport and cost, so distance is mostly reported as a single obstacle to the utilization of healthcare services.

There might be recall bias, cross-sectional study, it cannot show cause-effect relationship tween the variables studied and the same to other behavioral studies, respondents might not reply openly to sensitive and private questions.

CONCLUSION

This analysis found high levels of SRH utilization among adolescent in Mombasa County, Kenya. Given that adolescent girls continue to experience a substantial burden of adverse SRH outcomes, there is an urgent need to improve access to and utilization of AYFS in this context. Overall, our findings demonstrate the need for interventions, policies, and practices to be implemented across the structural, health facility, community, interpersonal, and individual levels to comprehensively support adolescent girls to use SRH services.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: The study was approved by the Institutional Ethics Committee

REFERENCES

1. Karianjahi N, Mbogo J, Wambugu C, Tole J, Agweyu A. Embracing the challenge of adolescent health in Kenya. The Lancet Child & Adolescent Health. 2020;4(2):101-3.
2. Republic of Kenya Ministry of Heatlh. National guidelines for provision of adolescent and youth-friendly services in Kenya. 2nd ed. Nairobi, Kenya: 2016.
3. World Health Organization. Contraception within the context of adolescents' sexual and reproductive lives. 2021.
4. Melesse DY, Mutua MK, Choudhury A, Wado YD, Faye CM, Neal S, Boerma T. Adolescent sexual and reproductive health in sub-Saharan Africa: who is left behind. BMJ global health. 2020;5(1):2231.
5. Ajayi AI, Odunga SA, Oduor C, Ouedraogo R, Ushie BA, Wado YD. " I was tricked": understanding reasons for unintended pregnancy among sexually active adolescent girls. Reproductive Health. 2021;18:1-10.
6. Worku MG, Tessema ZT, Teshale AB, Tesema GA, Yeshaw Y. Prevalence and associated factors of adolescent pregnancy (15–19 years) in East Africa: a multilevel analysis. BMC Pregnancy and Childbirth. 2021;21:1-8.
7. Obare F, van der Kwaak A, Birungi H. Factors associated with unintended pregnancy, poor birth outcomes and post-partum contraceptive use among HIV-positive female adolescents in Kenya. BMC women's health. 2012;12:1-8.
8. Ushie BA, Izugbara CO, Mutua MM, Kabiru CW. Timing of abortion among adolescent and young women presenting for post-abortion care in Kenya: a cross-sectional analysis of nationally-representative data. BMC women's health. 2018;18:1-8.
9. Ninsiima LR, Chiumia IK, Ndejjo R. Factors influencing access to and utilisation of youth-friendly sexual and reproductive health services in sub-Saharan Africa: a systematic review. Reproductive health. 2021;18:1-7.
10. Newton-Levinson A, Leichliter JS, Chandra-Mouli V. Sexually transmitted infection services for adolescents and youth in low-and middle-income countries: perceived and experienced barriers to accessing care. J Adoles Health. 2016;59(1):7-16.

11. Mutea L, Ontiri S, Kadiri F, Michielesen K, Gichangi P. Access to information and use of adolescent sexual reproductive health services: Qualitative exploration of barriers and facilitators in Kisumu and Kakamega, Kenya. Plos one. 2020;15(11):241985.
12. Godia PM, Olenja JM, Hofman JJ, van den Broek N. Young people's perception of sexual and reproductive health services in Kenya. BMC Heal Serv Res. 2014;14(1):172.
13. Godia PM, Olenja JM, Lavussa Ja, Quinney D, Hofman JJ, van den Broek N. Sexual reproductive health service provision to young people in Kenya; health service providers' experiences. BMC. 2013;13:476–9.
14. Abdelwahed I. An Overview of Sexual and Reproductive Health. Sexuality in the Middle East and North Africa: Contemporary Issues and Challenges. 2024:197.
15. Kachota BJ, Kassim M. Sexual and reproductive health information-seeking behaviour of undergraduate students at Mzumbe University, Morogoro–Tanzania. University of Dar es Salaam Library J. 2021;16(1):115-30.
16. Copen CE, Dittus P, Leichliter JS. Confidentiality concerns and sexual and reproductive health care among adolescents and young adults aged 15-25. Washington, DC: US department of health and human services, centers for disease control and prevention, national center for health statistics. 2016.
17. Mandiwa C, Namondwe B, Makwinja A, Zamawe C. Factors associated with contraceptive use among young women in Malawi: analysis of the 2015–16 Malawi demographic and health survey data. Contracep Reprod Med. 2018;3:1-8.
18. Akwara E, Idele P. The moral and social narratives of sexual and reproductive health in Kenya: a case of adolescents and young people pre-and within the MDG era. Reproductive Health. 2020;17:1-2.
19. Mochache V, Wanje G, Nyagah L, Lakhani A, El-Busaidy H, Temmerman M, Gichangi P. Religious, socio-cultural norms and gender stereotypes influence uptake and utilization of maternal health services among the Digo community in Kwale, Kenya: a qualitative study. Reproductive health. 2020;17:1-10.
20. Ssebadduka B, Nanyingi M. Determinants of adolescent and youth sexual and reproductive health service utilization in hard-to-reach communities of Amudat District, Uganda. African J Heal Sci. 2021;34(4):512-25.
21. Ndayishimiye P, Uwase R, Kubwimana I, Niyonzima JD, Dzekem Dine R, Nyandwi JB, Ntokamunda Kadima J. Availability, accessibility, and quality of adolescent Sexual and Reproductive Health (SRH) services in urban health facilities of Rwanda: a survey among social and healthcare providers. BMC Health Services Research. 2020;20:1-11.
22. Yadav N, Kumar D. The impact of reproductive and sexual health education among school going adolescents in Andaman and Nicobar Islands. Clinical Epidemiology and Global Health. 2023;24:101416.
23. Birhan Z, Tushune K, Jebena MG. Sexual and reproductive health services use, perceptions, and barriers among young people in southwest Oromia, Ethiopia. Ethiopian J Heal Sci. 2018;28(1):37-48.
24. Bangoura C, Dioubaté N, Manet H, Camara BS, Kouyaté M, Douno M, Tetui M, El Ayadi AM, Delamou A. Experiences, preferences, and needs of adolescents and urban youth in contraceptive use in Conakry, 2019, Guinea. Frontiers in global women's health. 2021;2:655920.
25. Brooks IH, Weitzman A. Religiosity and young unmarried women's sexual and contraceptive behavior: new evidence from a longitudinal panel of young adult women. Demography. 2022;59(3):895-920.
26. Kahsay ZH, Tegegne D, Mohammed E, Kiros G. Application of individual behavioral models to predict willingness to use modern contraceptives among pastoralist women in Afar region, Northern Ethiopia. PloS one. 2018;13(5):197366.
27. Brocato V, Dwamena-Aboagye A. Violence Against Women & HIV/AIDS. Edited by Amissah Y. Achimota: The Ark Foundation Ghana. 2007.
28. Nalwadda G, Mirembe F, Tumwesigye NM, Byamugisha J, Faxelid E. Constraints and prospects for contraceptive service provision to young people in Uganda: providers' perspectives. BMC health services research. 2011;11:1-9.
29. Birhan Z, Tushune K, Jebena MG. Sexual and reproductive health services use, perceptions, and barriers among young people in southwest Oromia, Ethiopia. Ethiopian J Heal Sci. 2018;28(1):37-48.
30. Ajike SO, Mbegbu VC. Adolescent/youth utilization of reproductive health services: knowledge still a barrier. J Fam Med Heal Care. 2016;2(3):17-22.
31. Abuosi AA, Anaba EA. Barriers on access to and use of adolescent health services in Ghana. J Health Res. 2019;33:197–207.
32. Binu W, Marama T, Gerbaba M, Sinaga M. Sexual and reproductive health services utilization and associated factors among secondary school students in Nekemte town, Ethiopia. Reproductive health. 2018;15:1-20.
33. Regmi PR, Van Teijlingen E, Simkhada P, Acharya DR. Barriers to sexual health services for young people in Nepal. Journal of health, population, and nutrition. 2010 Dec;28(6):619.
34. Amaje E, Daniel E, Tefera K, Sirage N. Utilization of youth-friendly reproductive health service and associated factors among youth in Aleta Wondo town, southern Ethiopia, 2020. SAGE open medicine. 2022;10:20503121221088089.
35. Flanagan KF, Cunningham SD, Lewis JB, Tobin JN, Ickovics JR. Factors associated with pregnant adolescents' access to sexual and reproductive

health services in New York City. Sexual & Reproduc Heal. 2019;19:50-5.
36. Negash W, Dessalegn M, Yitayew B, Demsie M, Wagnew M, Nyagero J. Reproductive health service utilization and associated factors: the case of north Shewa zone youth, Amhara region, Ethiopia. The Pan African Med J. 2016;25(2):45
37. Maharjan B, Rishal P, Svanemyr J. Factors influencing the use of reproductive health care services among married adolescent girls in Dang District, Nepal: a qualitative study. BMC pregnancy and childbirth. 2019;19:1-9.
38. World Health Organization. Guidance on ethical considerations in planning and reviewing research studies on sexual and reproductive health in adolescents. 2018.
39. Babalola S. Determinants of use of maternal health services in Nigeria—looking beyond individual and household factors bivariate analysis multilevel models. BMC Preg Childbirth. 2021;9:43.
40. Gitimu A, Herr C, Oruko H, Karijo E, Gichuki R, Ofware P, et al. Determinants of use of skilled birth attendant at delivery in Makueni, Kenya: a cross-sectional study. BMC Preg Childbirth. 2015;15:9.

Cite this article as: Githogori NW, Gitahi MW, Yonge SA, Bakari BA. Socio-demographic and health facility factors influencing utilization of reproductive health services among adolescents aged 15-19 years in Mombasa County, Kenya. Int J Community Med Public Health 2025;12:80-9.