

East African Medical Journal Vol. 100 No. 6 June 2023

SOCIAL FACTORS ASSOCIATED WITH LONG-ACTING REVERSIBLE CONTRACEPTIVES USE AMONG ADOLESCENT GIRLS AGED 17-19 YEARS AT GATUNDU KENYA MEDICAL TRAINING COLLEGE CAMPUS, KIAMBU COUNTY

Catherine Mwontunene Mungania, Degree of Master of Science in Nursing (Reproductive Health and Midwifery) of The Jomo Kenyatta University of Agriculture and Technology (JKUAT), P. O. Box 145 Kalimoni- Juja 01001, Sherry Oluchina Ph.D., School of Nursing, JKUAT, P. O. Box 62000 – 00200 Nairobi, Kenya, Mutisya Kyalo, Ph.D., School of Nursing, JKUAT, P.O. Box 60200, 00200 Nairobi, Kenya

Corresponding author: Catherine Mwontunene Mungania, JKUAT, P. O. Box 145 Kalimoni- Juja 01001. Email: catherinemunganiam@gmail.com.

SOCIAL FACTORS ASSOCIATED WITH LONG-ACTING REVERSIBLE CONTRACEPTIVES USE AMONG ADOLESCENT GIRLS AGED 17-19 YEARS AT GATUNDU KENYA MEDICAL TRAINING COLLEGE CAMPUS (KMTC), KIAMBU COUNTY

C. M. Mungania, S. Oluchina and M. Kyalo

ABSTRACT

Objective: To determine the social factors associated with long-acting reversible contraceptives (LARCS) use among adolescent girls aged 17-19 years at Gatundu KMTC campus.

Design: analytical cross-sectional.

Settings: Kenya Medical Training College Gatundu Campus (KMTC).

Population: 500 adolescent girls aged 17-19 years at Kenya Medical Training College Gatundu Campus.

Main outcome measures: Age, marital status, home region, religion, culture, social influence and health care workers unfavourable attitudes effects LARCS use by the study participants.

Method: Analytical cross-sectional study design.

Materials: A sample of 238 subjects was randomly selected from a population of 500 adolescent girls aged 17-19 years at Gatundu KMTC and a semi-structured self-administered questionnaire was used to collect data. Quantitative data was analysed using descriptive and inferential statistics via statistical package for social sciences (SPSS) version 25. Chi square tests and Multivariate logistic regression analysis was conducted to assess factors associated with uptake of long-acting reversible contraceptives methods.

Results: Majority (35.5%, n=84) of the subjects attributed LARCs non-use to religion, less than half 49% n=117 used LARCs without influence, (16.7%, n=40) did not use due to social influence, 26.8% marital status and (34.2%, n=78) due to culture n=38). On cross-tabulation, marital status (p=0.002) and social influence (p= 0.029) were strongly associated with LARCs use.

Conclusion: Inaccessibility and unavailability of LARCs to adolescents, as well as the perception of unfavourable attitudes among healthcare professionals, were the factors in the low use of LARCs. A multi-sectoral strategy on contraceptives should be deployed to increase the uptake of LARCs.

INTRODUCTION

Adolescence (10-19 years old) is a transition period between childhood and adulthood which is a critical life period during which individuals undergo marked biological, psychological, and social changes. During this time, sexual and reproductive health pose serious challenges to adolescents¹. This Age consist of heterogeneous subgroups with different socio-economic, parity, employment, marital and education statuses, and unique sexual and reproductive health (SRH) behaviours and family planning (FP) needs. Unintended pregnancy among adolescents is a worldwide public health issue, because it is a risk factor for abortion, disruption of education, future unemployment and poor socio-economic status.

Increasing long-Acting Reversible Contraceptives uptake is particularly important in sub-Saharan Africa, where family planning uptake is often motivated by women's desire to limit the number of births. Evidence from sub-Saharan Africa suggests that there is a large discrepancy between the proportion of women who want to limit the number of births and the proportion using Long-Acting Reversible Contraceptive Methods (LARCs). This implies large unmet need for LARCs such as the Intrauterine devices (IUD). Furthermore, contraceptive provision in many Sub-Saharan African countries has relied predominantly on short-term methods, such as oral pills, condoms and injectables². In Kenya while contraceptive prevalence has reached 58 percent, only 3.4 percent of girls aged 15-19 in Kenya are currently using the long-Acting Reversible

Contraceptives. Therefore, this study aimed at³ determining the social factors associated with LARCs use among adolescent girls aged 17-19 years at Gatundu KMTC campus and⁴ identifying the social demographic variables that are associated with the uptake of LARCs among adolescent girls aged 17-19 years at Gatundu KMTC campus so as to enhance its use and at the same time contribute to the health maintenance of girls by avoiding unplanned pregnancy and induced abortions.

MATERIALS AND METHODS

Study Design: Analytical cross-sectional which is ideal for such a study where sampling from the population was done and data collection from the eligible sample was at one point in time. Its application was relatively quicker and cheaper to undertake and the results can be easily inferred to the larger population.

Study area: The study was carried out at Kenya Medical Training College Gatundu campus, which was purposively selected. The area was selected because of the many adolescents who are admitted and the number of them that become pregnant. The Campus is located in Kiambu County, Gatundu South Constituency. It was established in April year 2016. Programs on the Campus include a diploma in clinical medicine and surgery, a diploma in community health nursing, a diploma in physiotherapy, a diploma in community health assistant and a certificate in a foundation course in community health. The institution has a total of 1300 students, including 700 girls and 500 boys. Therefore,

may make it possible to generalize the study's results to other institutions in the Country with the same characteristics.

included only adolescent girls aged 17-19 years who are 500. Students from this Campus, like any other, are admitted from all over the Country directly from high school.

Inclusion Criteria: Adolescent girls aged 17-19 years in Gatundu KMTC Campus

Exclusion Criteria: Adolescent girls aged 17-19 years who were very sick physically or mentally.

Data collection tools: Data were collected in 5 days using a self-administered semi-structured questionnaire. The semi-structured questionnaire contained closed and open-ended questions in divided parts. The first part of the questionnaire gathered demographic data; the second part yielded information on the proportion of adolescent girls aged 17-19 years using long-acting reversible contraceptive methods, the third part of the questionnaire assessed Knowledge level on long-acting reversible contraceptives, which had a set of five questions with options for the subjects to choose from. The questions were on identification of the method, types of the method, benefits of the method, composition of the method, time frame for effective action of the method, and on education on the method. The last part of the questionnaire yielded information on the social factors associated with contraceptive method choice by adolescent girls aged 17-19 years at Gatundu Kenya Medical Training College.

Study procedure: A stratified and simple random sampling procedure was adopted. The target population was divided into four stratus that is Nursing, Physiotherapy, Clinical Medicine and Community Health stratas according to the courses offered on the Campus: Each stratum had From the admission registers, the study population of

Study population: This study targeted all current female students at KMTC Gatundu, estimated to be 700, and the study population

Study sample: The study targeted a sample of 238 adolescent girls aged 17-19 years at Kenya Medical Training College Gatundu campus but obtained 228 (a response rate of 95.8).

girls aged 17-19 years totalling 500. The researcher then used proportionate allocation that uses a sampling fraction in each stratum that is proportional to that of the target population. Using this proportionate allocation, the researcher got 119 from nursing, 48 from physiotherapy, 38 from clinical medicine and 33 from community health a sample population of 238 respondents. The researcher then used simple random sampling from each stratum, where folded and thoroughly mixed papers with YES and NO were given to the study population. In nursing, there were 119 YES and 131 NO; in physiotherapy 48 YES and 52 NO, in clinical medicine, 38 YES and 42 NO and community health 33 YES and 37 NO. All the respondents who picked YES became the subjects of the study.

Data management: Data entry, analysis and presentation: The data was cleaned, coded, and entered into SPSS version 25. A descriptive analysis was performed on the subjects' demographic characteristics, their knowledge about LARCs, the factors considered when choosing contraception, and the proportion of girls who used contraception. Various measures of association between the dependent variable (LARC uptake) and the independent variables were calculated. For example, the chi-square test of association was used to assess the relationship between categorical dependent and independent variables. To compare Age (continuous variable) between those who use LARCs and those who do not, a two-sample t-test was used.

The results were considered significant at $p \leq 0.05$.

Ethical Consideration Authority to carry out research was sought from Jomo Kenyatta University of Agriculture and Technology (JKUAT) School of Nursing research committee and JKUAT ethical review committee. Permit to conduct the study was obtained from the Kenya National Commission for Science, Technology and Innovation (NACOSTI). Kiambu County Commissioner approved the proposal and referred the researcher to the director of education in Kiambu county, Kiambu county Director of Education approved the proposal and referred the researcher to County Director of Health Services who referred the researcher to the to Kiambu county clinical research officer who approved the proposal. This study did not harm the participants, and since it was purely for academic purposes, the participants had no incentives or remuneration. After clearly explaining the purpose of the study and what was required of participants by the researcher, the participants answered voluntarily. Participants gave voluntary informed written consent. The adolescents that

are 18 and 19 years consented to participate in the study, and the 17-year-olds, since they are minors according to the Kenyan constitution, were given an assent form to sign. This was backed and protected by the Adolescent Sexual Reproductive Health policy and guidelines which allow minors aged 15-19 years of Age the right to seek and receive reproductive health services and information without parents or guardians consent. The right to terminate participation was allowed. Subjects' anonymity and confidentiality were maintained. The collected data was treated with the utmost confidentiality.

RESULTS

Two hundred twenty-eight respondents (representing a 95.8% response rate) adolescent girls aged 17-19 years were surveyed for this study: the majority of the girls were single (98.3%). Furthermore, most respondents (94.5%) were Christians and came from Kenya's central area (50.7%, $n=113$). The girls were 18.39 years old on average ($SD=0.2$, $range=18-19$). As summarized below in Table 1.

Table 1
Socio-Demographic characteristics of respondents

Variable category		Frequency (n)	%
Marital status	Married	4	1.7%
	Single	224	98.3%
	Total	228	100.0%
Religion	Christian	215	94.3%
	Muslim	13	5.7%
	Traditionalist	0	0.0%
	Total	228	100.0%
Home Region	Central	113	50.7%
	Eastern	14	6.3%
	Rift Valley	37	16.6%
	Coast	0	0.0%
	Western	17	7.6%

Variable category		Frequency (n)	%
	Nyanza	21	9.4%
	Nairobi	21	9.4%
	Total	223	100.0%
Age	N=228, Mean=18.39, Range=17-19, SD=0.72		

Social Factors associated with choice of contraceptive method

This section presents results on decisional independence, cultural barriers, beliefs about contraception, and the health care providers

advise (HCPs). Girls who have ever used a FP method, 49 percent (n=112) did so without any external influence, with the rest (19%) claiming HCPs, friends (24 %, n=24), or relatives (4.0%, n=4) influenced their decisions

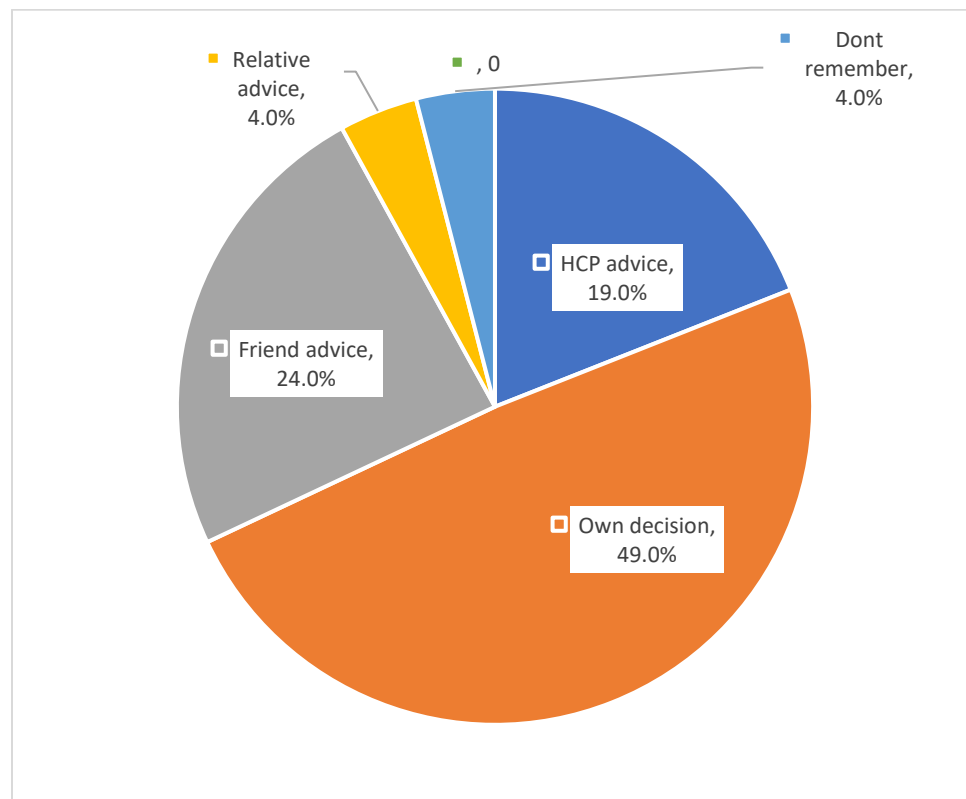
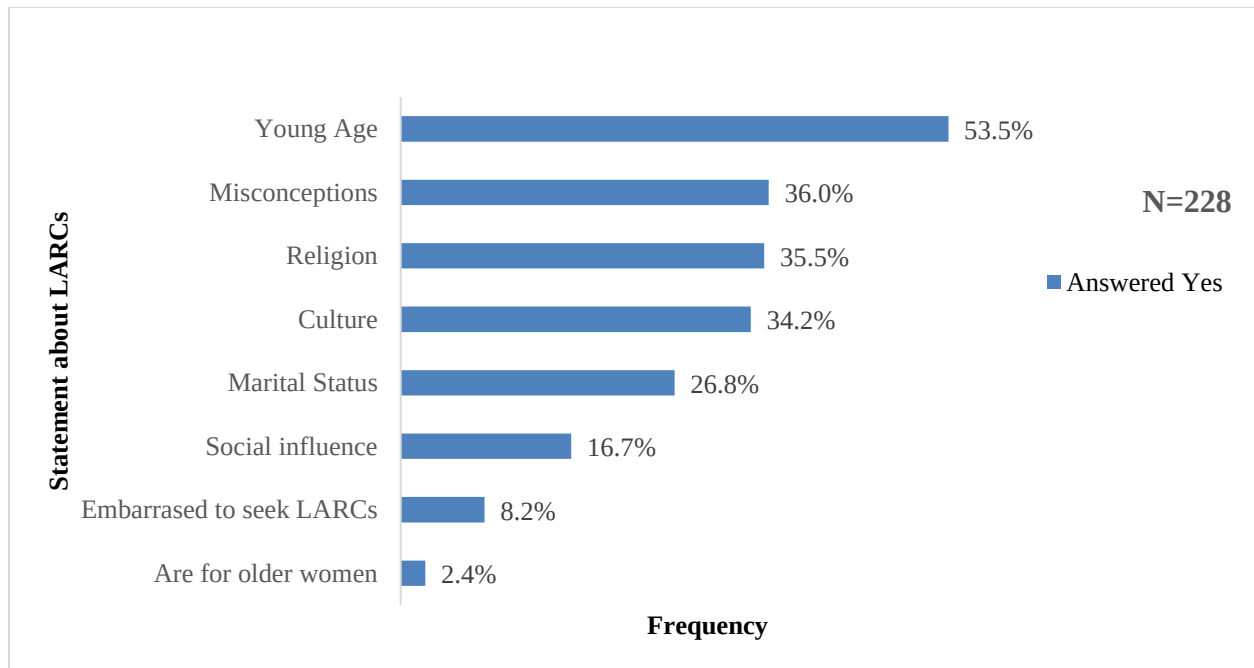


Figure 1: Social factors associated with choice of contraceptive method

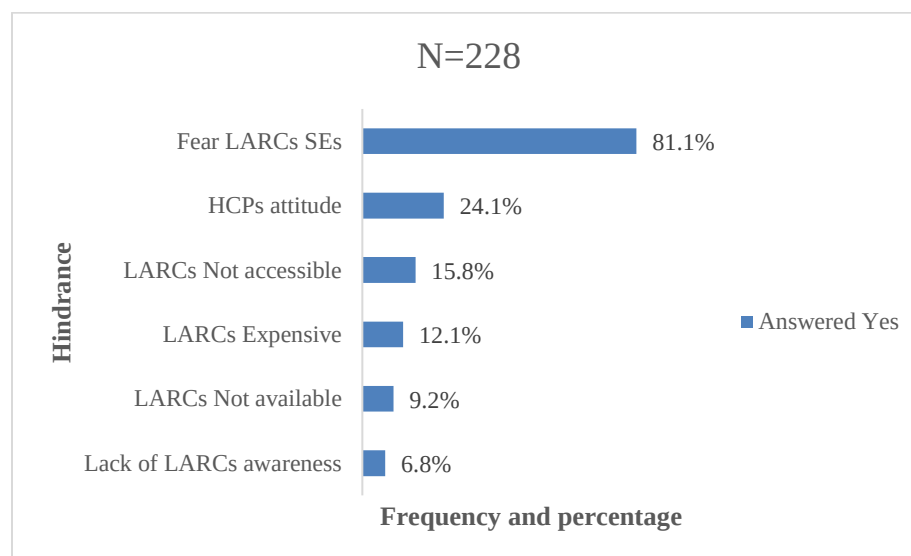
The results of the analysis of several social hindrances as shown in figure 2. The beliefs about age that is if a woman is of young age) (53.5%, n=122), misconceptions (36%, n=82), religion (35.5%, n=81), culture (34.2%, n=78)

were the main deterrents to using LARCs. Other reasons for not using LARCs were social influence (16.7%, n=38) and feeling embarrassed when looking for LARCs (8.2%, n=16).



In Figure 2, the findings regarding healthcare workers and contraceptives were displayed. When asked why they don't use LARCs, 81.1 percent of respondents (n=185) cited side effects fear, 24.1 percent (n=55) the unfavorable attitudes of healthcare workers, and 15.8 percent (n=36) the lack of accessibility. Other

reasons included high costs (12.1%, n=25), unavailability (9.2%, n=21), and unawareness (6.8%, n=14). The unfavorable attitudes of healthcare workers, and 15.8 percent (n=36) the lack of accessibility. Other reasons included high costs (12.1%, n=25), unavailability (9.2%, n=21), and unawareness (6.8%, n=14).



To determine the relationship between social factors and LARC uptake, a chi-square test of independence was conducted. The results were shown in Table 2. A woman's marital status ($p=0.002$) and the social influence for example from relative ($p=0.029$) were found to be strongly associated with the use of LARCs on cross-tabulation (Table 3). Further, lack of accessibility ($p=0.003$) and lack of availability ($p=0.001$) of the LARCs were strongly associated

with LARC nonuse. However, the girls' independence in FP decision-making, their fear of being seen looking for LARCs, their beliefs, their culture, their Age, or any common misconceptions or myths did not significantly affect uptake ($p>0.05$). Similarly, fear of side effects, and the attitude of health workers were insignificantly associated with uptake of LARCs.

Table 2
Social factors associated with uptake of LARCs

Social factors		History of LARC Uptake/use				Significant at p≤0.05
		No		Yes		
		n	%	n	%	
Decisional independence	Relative/friend	61	81.3%	16	76.2%	χ²=0.273 df=1 p=0.601
	HCPs	14	18.7%	5	23.8%	
	Total	75	100.0%	21	100.0%	
Fears going for LARC	No	150	72.5%	17	81.0%	χ²=0.701 df=1 p=0.402
	Yes	57	27.5%	4	19.0%	
	Total	207	100.0%	21	100.0%	
A woman’s Marital Status	No	155	74.9%	9	42.9%	χ²=0.9.683 df=1 p=0.002*
	Yes	52	25.1%	12	57.1%	
	Total	207	100.0%	21	100.0%	
Religion	No	134	64.7%	13	61.9%	χ²=0.067 df=1 p=0.796
	Yes	73	35.3%	8	38.1%	
	Total	207	100.0%	21	100.0%	
Culture	No	133	64.3%	17	81.0%	χ²=2.363 df=1 p=0.124
	Yes	74	35.7%	4	19.0%	
	Total	207	100.0%	21	100.0%	
Girl is of young age	No	98	47.3%	8	38.1%	χ²=0.655 df=1 p=0.418
	Yes	109	52.7%	13	61.9%	
	Total	207	100.0%	21	100.0%	
Misconceptions	No	134	64.7%	12	57.1%	χ²=.477 df=1 p=0.490
	Yes	73	35.3%	9	42.9%	
	Total	207	100.0%	21	100.0%	
Social influence	No	169	81.6%	21	100.0%	Fisher;s Exact P=0.029
	Yes	38	18.4%	0	0.0%	
	Total	207	100.0%	21	100.0%	
HCPs negative attitude	No	156	75.4%	17	81.0%	χ²=0 .325 df=1 p=0.568
	Yes	51	24.6%	4	19.0%	
	Total	207	100.0%	21	100.0%	
LARCs Not accessible	No	179	86.5%	13	61.9%	χ²=8.655

	Yes	28	13.5%	8	38.1%	df=1 p=0.003
	Total	207	100.0%	21	100.0%	
LARCs Not available	No	194	93.7%	13	61.9%	$\chi^2=23.078$ df=1 p<0.001
	Yes	13	6.3%	8	38.1%	
	Total	207	100.0%	21	100.0%	
	Total	207	100.0%	21	100.0%	
Fear of LARCs SEs	No	39	18.8%	4	19.0%	Fisher's Exact p=1.000
	Yes	168	81.2%	17	81.0%	
	Total	207	100.0%	21	100.0%	

Multivariate logistic analysis was used to determine the likelihood that respondents would use LARCs based on the various variables' knowledge and social cultural factors which were identified as significant during cross-tabulation (See Table 3).

According to the logistic regression, the significant predictors of LARCs use were positive history of sexual intercourse (OR = 2.346, 95% CI [1.634, 4.354], $p<0.001$), being pregnant at the time (OR = 5.756, 95% CI [2.342, 7.567], $p<0.03$), and ever been pregnant in the past (OR = 1.782, 95% CI [1.345, 4.567],

$p<0.02$). Those who had sexual intercourse before were 2.346 times more likely to use LARCs than those who have not had sex. The respondents who were pregnant at the time were 5.756 times more likely to use LARCs than those who were not pregnant. Similarly, the girls who have ever been pregnant before were 1.345 times more likely to use LARCs compared to those that had never been pregnant. All the other variables were insignificant in the logistic regression mode ($p>0.05$).

Table 3

The likelihood of LARCs use given the different independent variables

Independent Variables in the model	B	S.E.	Wald	Df	Sig.	OR	95% C.I. for OR	
							Lower	Upper
Married			0.000	2	1.000			
Single	-24.816	26422.407	0.000	1	0.999	0.000	0.000	0.000
Dating	-21.414	22407.676	0.000	1	0.999	0.000	0.000	0.000
Central Home	13.224	9713.913	0.000	1	0.999	5.5354	0.423	3.734
Has ever had sexual intercourse	0.853	8195.471	0.000	1	<0.001	2.346	1.634	4.354
Pregnant at the time	36.289	23652.002	0.000	1	0.03	5.756	2.342	7.567
Ever been pregnant	18.999	8184.062	0.000	1	0.02	1.782	1.345	4.567
Thought LARCs are effective	-10.668	17783.068	0.000	1	1.000	0.000	0.000	0.000
Ever heard of Depo-Provera	15.145	16673.001	0.000	1	0.999	0.37788	0.000	0.000
Thinks LARCs are effective	-.436	32788.283	0.000	1	1.000	0.647	0.000	0.000
Thinks LARCs are safe	-3.737	20745.470	0.000	1	1.000	0.024	0.000	0.000
LARCs need frequent clinics	14.336	19570.982	0.000	1	0.999	0.1682	0.768	

Thinks that woman's marital status influence LARCs use	12.458	9732.173	0.000	1	0.999	2.574	0.985	1.809
Thought society influences LARCs use	-39.140	16801.414	0.000	1	.998	0.000	0.000	
Thinks LARCs are unavailable	13.112	10248.023	0.000	1	.999	495006.041	0.000	
Constant	-11.847	29333.888	0.000	1	1.000	0.000		

DISCUSSION

Regarding social factors, society influenced more than half of the girls' decision to use a family planning method (friends, relatives etc.). The demonization of sex among adolescents has been noted in the past ³. This is because parents, guardians, teachers, religious leaders, and other opinion shapers strongly emphasize abstinence. More than half of the girls in this study thought LARCs were inappropriate for young people. Furthermore, the main barriers to using LARCs were misconceptions about LARCs, religion, culture, and marital status (the majority of girls were not married). The current findings have some similarities with past studies. Although sexually active adolescents need contraceptive products and services, they are deterred from using them because they perceive that having sex before Marriage is wrong ¹⁵. Furthermore, most opinion leaders have publicly criticized teenagers who use contraceptives, further discouraging their use ³.

Previously, myths and culture have been recognized as obstacles to using LARC. ³ state that factors like the ability to obtain a method of contraception with other adolescents' knowledge results in a fear that the use of LACS will cause the user to be included in a group of loose people from other adolescents and the general public, which deters unmarried sexually active adolescents from using contraceptives.

Even though the current study identified several additional social issues as significant barriers to the use of LARCs, including unfavourable attitudes of healthcare professionals, a lack of accessibility, and a lack of availability, only a lack of accessibility and a lack of availability were significantly associated with LARC non-use. These conclusions have been made before. Only 7% of Kenya's public health facilities, according to a study by ^{6,7}, offered services geared toward young people. Therefore, a significant barrier to the low use of contraceptives among young people is the lack of high-quality, youth-friendly centers and services. Most youth-friendly facilities in Kenya are housed in hospitals, with clinics open Monday through Friday from 8 am to 5 pm, making them inaccessible to teenagers who are likely to attend school during these times ^{6,7}.

Strength The results of the study are generalizable to the adolescent girls with similar characteristics

Limitations The study focused on the social factors associated with long-acting reversible contraceptives use among the adolescent girls in college yet these are not the only adolescent girls that are sexually active and suffering the consequences of non-use of long-acting reversible contraceptives. Also, LARCs use is not the only solution to the adolescent's sexual reproductive health needs.

Recommendations Reproductive health professionals should dispel myths and misconceptions about FP use among young people and unmarried women by working with the community. This may lessen the stigma associated with girls who use contraceptives and raise interest in FP, particularly among LARCs. A multi-sectoral strategy on contraceptives that involves the ministries of education, gender, and health to increase the uptake of LARCs be deployed. In particular, strategies should be explored to enable youths to access and use LARCs at their points of use.

CONCLUSION

In conclusion woman's marital status and socials influence, were the social factors associated with uptake of LARCs among the adolescent girls aged 17-19 years.

REFERENCES

1. Kuruvilla S, Bustreo F, Kuo T, Mishra CK, Taylor K, Fogstad H, Gupta GR, Gilmore K, Temmerman M, Thomas J, Rasanathan K. The Global strategy for women's, children's and adolescents' health (2016–2030): a roadmap based on evidence and country experience. *Bulletin of the World Health Organization*. 2016 May 5;94(5):398.
2. Chesire F. Differential Effects of Household Characteristics on Uptake of Skilled Birth Attendance among Women of Reproductive Age in Western Kenya. *East African Journal of Health and Science*. 2022 Aug 24;5(1):285-99.
3. Abuya BA, Muhia N, Wekulo PK. Providing for a brighter future: explaining the lessons learnt from the implementation and evaluation of a program targeting adolescents in Nairobi, Kenya. *Cogent Education*. 2022 Dec 31;9(1):2139551.
4. Bwalya BC, Sitali D, Baboo KS, Zulu JM. Experiences of antenatal care among pregnant adolescents at Kanyama and Matero clinics in Lusaka district, Zambia. *Reproductive health*. 2018 Dec;15:1-8.
5. World Health Organization. Contraception: fact sheet: family planning enables people to make informed choices about their sexual and reproductive health. *World Health Organization*; 2014.
6. Obare F, Birungi H, Undie CC, Wanjiru M, Liambila W, Askew I. Levels, trends and determinants of contraceptive use among adolescent girls in Kenya.
7. Obare F, Birungi H, Undie CC, Wanjiru M, Liambila W, Askew I. Levels, trends and determinants of contraceptive use among adolescent girls in Kenya.