

Barriers to Utilization of Modern Contraceptive Methods Used by Females Aged 15 - 24 Years: A Case Study of Moyo District in Uganda

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Abstract

Background: Modern contraceptives are medical procedures that interfere with reproduction or acts of sexual intercourse. Moyo district contraceptive prevalence used by females aged 15 - 24 years is 6.03%, which is far from the national target. The low contraceptive use among this age group results in high school drops, unwanted pregnancy, early child marriage, and community disputes. Purpose: To evaluate barriers associated with the utilization of modern contraceptive methods used by females aged 15 - 24 years in Moyo district in Uganda. Methods: A cross-sectional design with mixed methods of quantitative and qualitative approaches was used. The reason for using a cross-sectional design is to measure the exposure and outcome variables at the same time. It's relatively quick and inexpensive, and findings can be used to create an in-depth research study. Multistage sampling was used to draw 423 participants for quantitative and 23 participants were purposively selected for Qualitative study based on knowledge and experience, the results were analyzed using SPSS Version 20 and open code software and presented in the form of tables, pie charts, graphs, descriptive and inferential statistics. Results: The findings indicated marital status OR 3.193, P-Value 0.000 and CI (2.002 -5.091), Family/Community influence OR 1.644, P-Value 0.019 and CI (1.084 - 2.493) and Cultural influence OR 2.004, P-Value 0.006 and CI (1.218 - 3.298) tend to be associated with using contraceptives. Desire for children OR 0.459, P-Value 0.002 and CI (0.279 - 0.756) and long waiting time OR 0.442, P-Value 0.003 and CI (0.258 - 0.756) tend to be not associated with the use of modern contraceptives. The findings of this study have shown both individual and socio-cultural factors contribute to the low utilization of modern contraceptives among females aged 15 - 24 years, and these need to be addressed with the involvement of different stakeholders.

Keywords

Adolescents, Contraception, Emergency Pills, Implants, Family Planning Component

1. Introduction

Modern contraceptives are products or medical procedures that interfere with reproduction or acts of sexual intercourse [1]. This method includes sterilization (Male and Female), Intrauterine devices (IUDs), Implants, oral contraceptives, condoms (male and female), injectable, emergency contraceptive pills, Patches, Diaphragm and cervical caps, spermicidal agents, Vaginal rings, and sponge. Adolescent pregnancy rates are disproportionately high in developing countries, with 2.5 million births occurring among adolescents below 16 years of age annually and more so among the less privileged Individuals [2]. In sub-Saharan Africa and Asia, more than 60% of adolescents who wish to avoid pregnancy have an unmet need for modern contraception. The adolescents who do not use modern contraception rely instead on a traditional method of family planning, accounting for more than 80% of unintended pregnancies among adolescents [3].

In Senegal, the modern contraceptive prevalence rate (MCPR) increased from 5% in 1993 to 19% in 2017, reducing the total fertility rate from 6.0 to 4.6 in the same period with a focus on child spacing among married women [4]. In Kenya, young women experience a higher risk of untimely and unwanted pregnancy compared to older women. For instance, a study that was conducted there by Ockako *et al.* in 2015 reported that 32% and 30% of the pregnancies among young women aged 15 to 24 years were untimely and unwanted, respectively [5]. A study that was conducted in Uganda among adolescents reported a weighted modern contraceptive use of 30.9%, which was attributed to adolescents' age, marital status, area of residence and economic status of the household [2]. In Uganda, it is reported that approximately 77% of adolescents are likely to have sex by the age of 19 years [6].

According to Uganda's Demographic Health Survey (UDHS 2016) indicated that the modern contraceptive prevalence rate was 35%, the unmet need for family planning was 28%, and 43.2% occurs in the West Nile region compared to other regions in Uganda. The use of modern contraception is one of the most cost-effective public health interventions that have the potential to prevent about 30% of maternal and 10% of child deaths in developing countries [7].

The unmet need for family planning is not uniform across the country. There are regions in the country with a much higher unmet need than the national average of 28%: West Nile region, where Moyo district is found, which is the study area stands with the highest of (43.2%), Acholi (39.0%), Busoga (36.5%) and Teso (36.3%). Data from the District Health Information System (DHIS2, 2020) indicates Moyo district has 724/11998 females in the age range of 15 - 24 years using

modern contraceptives, contributing to 6.03% contraceptive prevalence, which is far from the national target. The low contraceptive use among this age group results in high school dropouts, unwanted pregnancies, early childhood marriage, community disputes, unsafely induced abortions, and high maternal morbidity and mortality [8]. Despite free contraceptives in public health facilities, the utilization remains very low among young women in West Nile, particularly in the Moyo district, and no documented evidence exists. Therefore, this study provided contextual and empirical answers to the following questions: What are the individual barriers to the utilization of modern contraceptive methods among females aged 15 - 24 years in the Moyo district in Uganda? What are the socio-cultural barriers to the utilization of modern contraceptives among females aged 15 - 24 years in the Moyo district in Uganda? What are the health care system and organization barriers to the utilization of modern contraceptives among Females aged 15 - 24 years in the Moyo district in Uganda?

2. Materials and Methods

2.1. Study Design and Area

The study used a cross-sectional design with mixed methods of quantitative and qualitative approaches co-currently. The reason for using a cross-sectional design is to measure the exposure and outcome variables at the same time. Secondly, it is relatively quick and inexpensive, and findings can be used to create an in-depth research study. The purpose of using mixed methods was both qualitative and quantitative research, in combination, provides a better understanding of a research problem or issue other than using one research approach, so the advantage of quantitative approaches covers up the disadvantages of qualitative approaches, and the reverse is true. The mixed methods used questionnaires and interview guides.

The study was conducted in the Moyo district, which is one of the districts in the Republic of Uganda located in the West Nile region. South Sudan in the North, Obongi in the South, Adjumani in the East, and Yumbe in the West border it.

2.2. Sample Size and Sampling Technique

According to the Population and Housing Census that was conducted in August 2014, the total population of Moyo District in 2021 is projected to be 118,008. Among them, 58,019 are males and 59,988 are females. The total number of households is 23,602. The study involved married and unmarried female local residents of the villages of interest aged 15 to 24 years who assented to consent forms to participate in the study. The study adopted Slovin's Formula, which was formulated in the 1960s to determine the sample size. The rationale for the use of this formula was that there is no idea about the population's behavior.

$$n = \frac{N}{1 + Ne^2}$$

where, N = Target population;

n = Sample size;

e = Error term-level of significance (e = 5% = 0.05).

Females aged 15 to 24 years are 12358 in Moyo district. (Population and Housing Census that was conducted in August 2014 projected to 2021)

Therefore, N = 12358 = 386 Respondents.

 $1 + (12358 \ (0.05 \times 0.05))$

An additional 10% allowance (non-response) for incomplete questionnaires and refusal to participate in the study was considered. Thus, 386 + 37 = 423 was the sample size.

For qualitative data, an in-depth interview was conducted among females aged 15 - 24 years until the saturation point was attained. The study used multistage sampling to draw 423 subjects to be enrolled in the study using simple random and systematic sampling techniques to ensure that the sample was representative of the entire population and was given an equal chance of participation in the study [9].

A total of 6 sub-counties/Town councils were selected from the district, 12 Parishes were selected from six sub-counties, with each sub-county having 2 parishes, 36 villages were selected from 12 parishes and from each parish 3 villages were selected, and 12 participants in a household level were selected in the village. In a village with a small household of the study population, the next village with the highest population was considered to get the desired sample size of the participants.

To select the six sub-counties/Town councils, all the names of sub-counties/town councils in the district were written on a piece of paper, folded and put in a transparent bucket, and randomly picked without replacement until the six sub-counties/Town councils were obtained. The same process was applied to Parishes and Villages. For the household in the village, a systematic sampling method was used where a list of all households with females aged 15 - 24 years was obtained from the village's local council chairperson. The total number was divided by the desired number (12) to get the interval, and one respondent, a female-aged 15 - 24 years, was randomly selected for the interview from selected households and followed the interval until the desired number was interviewed. A purposive homogeneous sampling method was used to select the females aged 15 - 24 years for the key informant's interview guide. According to (Kelly, 2010), purposive sampling is 'used to select respondents that are most likely to yield appropriate and useful information', the rationale was it is good for small defined populations with life experiences, traits, and backgrounds in contraceptives to achieve the desired outcomes [10].

2.3. Measurement of Variables

The variables were categorized into dependent and independent variables. Dependent variables: Utilizations of modern contraceptives. The Independent Variables: Social demography: Age, education, occupation, religion and residence. Individual factors: desire for children, marital status, knowledge of contraception, fear of side effects, stigma, rumors, income, and cost. Socio-cultural factors: religion, culture, residence, partner influence, family/community influence, and perception of sexual activity. Healthcare setting/organization factors: the availability of preferred methods, distance to a facility, attitude of health workers, long waiting time, policies, privacy, and confidentiality.

2.4. Data Collection Tools

The study used semi-structured questionnaires to collect quantitative data. The reason for using a questionnaire is that it is a standardized tool that enhances reliability by minimizing the chances of error in the data collection exercise. The quantitative tool was structured to collect information on Demographic data, individual barriers, social-cultural and healthcare/organization barriers to contraceptives. The questionnaires were administered by a research assistant in both English and the local Madi language based on the client's preference. The questions were translated into the local language for those who could not understand English. A database was created, and the questionnaires were entered into it. A structured key interview guide for an in-depth interview was used by the research assistant, who had experience collecting qualitative data. The rationale was that socio-cultural issues are well understood through conversation and interactions with participants.

A structured questionnaire that incorporated all the variables was used. The questionnaires were completed at the household level where there was an eligible participant, the research assistants made a clarification in areas of concern to the participants during the process, and a completed filled questionnaire was submitted to the researcher on a daily basis for verification. Females aged 15 - 24 years who were interactive with life experiences, traits and background with modern contraceptive use during the quantitative data collection process were selected to participate in an in-depth interview. Oral consent was obtained to participate and record audio, and the interview was completed in a quiet environment that lasted for about 20 - 30 minutes. The research assistant took notes and recorded audio during the interview process.

The researcher pre-tested the questionnaire with participants who did not belong to the sub-county selected for the validity of the tool. The researcher adjusted and eliminated vague questions in line with the objectives before using it. A twoday training was organized for the research assistant on the research process, such as record taking, audio recording, and research ethics prior to the beginning of the data collection process. All filled questionnaires were reviewed by the principal investigator for consistency, and participants whose questionnaires were incomplete were dropped out during data cleanliness.

2.5. Data Management and Analysis

The researcher cross-checked the filled questionnaire on a daily basis, coded the questionnaires, cleaned them for consistency and completeness and kept them safely in a locked cupboard. A database with a password was created on the computer. Data were entered directly into a database created and analyzed using

software (SPSS V 20.0). The data were analyzed based on the responses to the questions, descriptive statistics were used to calculate the frequencies and distribution of each variable, and the results were presented in the form of graphs, tables, and pie charts. Logistic regression analysis was used to determine the factors (Barrier) associated with contraceptive use. A bivariant analysis was done to determine the variables that were to be included in the multivariate analysis. Any variable with a P-value of less than 0.2 was included in the multivariate analysis, and all those factors that literature shown to be having an influence on the contraceptive were also included in the multivariate analysis. In the multivariate analysis, the backward stepwise method was used, where the variable's most non-significant p-value was dropped after testing for confounding, and any variable found to be confounded with a percentage difference of Crude and adjusted odd ratio of 10% or more was considered a confounder and included in the multivariate analysis. All those variables with a P-value of less than (P-value > 0.05) were considered significant.

The written notes were read and audio listened to several times by the researcher, the audio recorded in the local language was translated to English, the written notes were triangulated with audio and the data were transcribed to a Microsoft Word document, saved in text form and analyzed using open code software. Content analysis was used, and the text was interpreted and systematically classified, coded and themes identified. Themes and sub-themes were formed in line with the study objectives. Descriptive summaries and quotes were made.

2.6. Ethical Considerations

The researcher sought permission from the Uganda Christian University (UCU) Research Ethics Committee (REC) for review and approval of the research proposal. A REC number UCUREC-2022-381 was obtained. Permission to conduct the study was sought from the Moyo District health officer. A consent form was drafted for the participants to sign as proof of informed consent before data collection.

3. Results, Discussion and Conclusion

3.1 Quantitative Data

A total of 423 participants were sampled. Nine were excluded due to errors in data collection, leaving 414 participants for analysis, as shown in **Table 1**. Results on sociodemographic characteristics indicated that the majority of the respondents 64.7% were in the age group of 20-24 years, 80.2% were catholic and 4.6% were protestant, 63.5% had completed primary and 3.1% post-secondary education, 70.5% were not employed and 3.4% were formally employed and 41.1% had no child and 8.0% had three or more children. In reference to **Figure 1**, among the majority of the respondents, 74.6% had ever thought of using modern contraceptives and 25.4% had never thought of using modern contraceptives. On the other hand, **Figure 2** indicates that the majority of the respondents, 55.6%, had used or were currently using modern contraceptives. The majority of the respondents, 153 (37%), accessed modern contraceptives in public facilities, and a few, 11 (2.7%), accessed both public and private facilities (**Figure 3**). As far as what methods they ever used to prevent pregnancy, of the 230, only 61.3% had used condoms and no clients used patches, spermicides, female sterilization and vasectomy (**Table 2**; **Figure 4**). Also, when asked about how long they had been using modern contraceptive methods, of the 230 who responded, the majority of the respondents, 61 (26.6%), used modern contraceptives for two years and above, and a few, 19 (8.3%), used for one week.

Characteristics	Frequency (n)	Percentage (%)
Age		
15 - 19 years	146	35.3
20 - 24 years	268	64.7
Residence		
Rural	279	67.4
Urban	135	32.6
Religion		
Catholic	332	80.2
Protestant	19	4.6
Muslim	32	7.7
Born again	31	7.5
Education Level		
Never been to school	70	16.9
Primary completed	263	63.5
Secondary completed	68	16.4
Post-Secondary (Cert, Diploma and Degree)	13	3.1
Marital Status		
Single	143	34.5
Married	234	56.5
Separated	37	8.9
Employment status		
Not employed	292	70.5
Formally employed	14	3.4
Business	108	26.1

Table 1. Distribution of socio-demographic characteristics of respondents, n = 414.

Continued	ontinued			
Number of children (Parity)				
No Child	170	41.1		
One child	129	31.2		
Two children	84	19.8		
Three and above	33	8.0		



Figure 1. Distribution of modern contraceptives to prevent pregnancy.









Figure 3. Where they accessed modern contraceptives.

Characteristics	Frequency (n)	Percentage (%)
Desire to have children		
Yes	69	30
No	161	70
Fear of side effects		
Yes	169	73.5
No	61	26.5
Cost		
Yes	3	1.3
No	227	98.7
Rumors		
Yes	120	52.2
No	110	47.8
Stigma		
Yes	6	2.6
No	224	97.4
Marital Status		
Yes	49	21.3
No	181	78.7

Table 2.	Individual	barriers to	using modern	contraceptives.



Figure 4. Duration of use of modern contraceptives.

As far as individual barriers were concerned, the majority of the respondents, 169 (73.5%), feared the side-effects, and a few 3 (1.3%) indicated the cost as their major barrier (Table 2). The socio-cultural barriers were mainly family/community influence (46.5%), as indicated in Table 3. When asked whether they ever discussed with their Partner/Family member about the use of Modern contraceptives, 230 responded. The majority of the respondents, 81.0%, discuss with a partner/family member about the use of modern contraceptives, and 19.0% do not discuss the use of modern contraceptives (Figure 5). When asked whether the partner approved of the use of modern contraceptives, the majority of the respondents, 145 (63%), reported that partner/family members did not, while 85 (37%) approved of the use of modern contraceptives (Figure 6). When asked about why sexual partners could possibly refuse the use of modern contraceptives, the majority of the respondents 35.6% reported rumors of infertility and a few 2.6% mentioned others, such as still in school, feeling sexual pleasure and desire to control pregnancy naturally (Table 4). Concerning health facility barriers, the majority of the respondents (37%) indicated that distance is close, and a few (6.5%) mentioned that policies are not friendly (Table 5).

In the bivariate analysis of the individual, socio-cultural and health care, it was found that individual barriers, particularly the fear of side effects (P-value = 0.07) and marital status (P-value = 0.000), were significant. As far as socio-cultural barriers are concerned, family influence was significant, with a P-value of 0.033. Regarding health care factors, long waiting time was significant at a p-value of 0.008 (Table 6). At the multivariate level of analysis, it was found that the individual factors, socio-cultural and healthcare factors were found significant with various P-values below 0.05. However, individual factors were more significant than other factors particularly the desire to have children and marital status Table 7.

Characteristics	Frequency (n)	Percentage (%)
Religious influence		
Yes	24	10.4
No	206	89.6
Cultural influence		
Yes	49	21.3
No	181	78.7
Residence in the rural area		
Yes	10	4.8
No	219	95.2
Partners refusal		
Yes	92	40
No	138	60
Family member/community influence		
Yes	107	46.5
No	123	53.5
Perception of sexual immorality		
Yes	40	17.4
No	190	82.6

 Table 3. Socio-cultural to using modern contraceptives.







Figure 6. Require partner approval before the use of modern contraception.

Characteristics	Frequency (Yes = n)	Percentage (%)
Desire to have more children	49	21.3
Rumors of infertility	82	35.6
Rumors of cancer	45	19.5
Feeling of sexual pleasure	6	2.6
Side effects	42	18.2
Others (Still in school, need to control pregnancy naturally)	6	2.6

Гabl	e 4.	Reasons	why o	did :	not	appro	ve of	using	modern	contrace	ptives.

Table 5. Healthcare setting/institutions barriers to using modern contraceptives.

Characteristics	Frequency (n)	Percentage (%)
Distance is far		
Yes	35	14.2
No	195	84.8
Distance is too close		
Yes	62	37
No	168	73
Attitudes of providers/health workers		
Yes	29	12.6
No	201	87.4
Long waiting time		
Yes	60	26.1
No	170	73.9

ontinued		
Absence of preferred methods		
Yes	21	9.1
No	209	90.9
Privacy and confidentiality		
Yes	21	9.1
No	209	90.9
Policies are not friendly		
Yes	15	6.5
No	215	93.5

 Table 6. Bivariate analysis of individual, socio-cultural and healthcare barriers.

Barriers	Variables	OR (Exp (B))	P-value	95% CI for Exp (B)
	Desire to have children	0.669	0.078	(0.428 - 1.046)
	Fear of Side effects	0.561	0.007	(0.370 - 0.851)
Individual	Cost	0.413	0.446	(0.043 - 4.008)
marviauai	Rumors	1.091	0.660	(0.740 - 1.610)
	Stigma	1.920	0.224	(0.671 - 5.496)
	Marital status	2.599	0.000	(1.689 - 4.000)
	Religion	1.226	0.511	(0.668 - 2.252)
	Culture influence	1.494	0.079	(0.954 - 2.341)
	Residence-Rural	0.787	0.628	(0.299 - 2.073)
Social-Cultural	Partner refusal	0.781	0.229	(0.522 - 1.168)
	Family/Community influence	1.528	0.033	(1.034 - 2.257)
	Perception of sexual immorality	1.362	0.213	(0.837 - 2.216)
	Distance Far	1.234	0.882	(0.077- 19.88)
	Close	0.907	0.733	(0.520 - 1.585)
	Attitudes of health care worker	0.941	0.841	(0.521- 1.701)
Health care	Long waiting time	0.509	0.008	(0.309- 0.837)
	Absence of Preferred Methods	0.820	0.581	(0.405- 1.660)
	Confidentiality	0.757	0.448	(0.368- 1.556)
	Contraceptives policies	1.748	0.118	(0.868- 3.519)

Significant level of P-value at 0.2.

Dennieur	V	OD E (D)		95% CI for Exp (B)	
Barriers	v ariables	OK Exp (B)	P-value	Lower	Upper
T., J., J., 1	Desire for children	0.459	0.002	0.279	0.756
Individual	Marital status	3.193	0.000	2.002	5.091
Control Control	Cultural influence	2.004	0.006	1.218	3.298
Social-Cultural	Family/community influence	1.644	0.019	1.084	2.493
Healthcare/institution	Long waiting time	0.442	0.003	0.258	0.756

Table 7. Analysis of individual, socio-cultural and health facility factors at Multivariable level.

3.2. Qualitative Results

The respondents were asked about the individual barriers that affect the utilization of modern contraceptives in their area. The respondents mentioned fear of not bearing children (Infertility), side effects (over-bleeding, abdominal pain, abnormal birth, weakness, alteration of periods, disease, for example, cancer, infections), Denial by partner, stigma, rumors (Implants can disappear), unmarried are not supposed to use "family Planning", fear of family breakup, cost.

A mother of two children in a rural setting was quoted as "*I have fear for FP because of rumors, second the father of my children does not accept it and thirdly the methods such as oral or injectable are for buying and I don't have money*". (ID Number 012)

Another mother from an urban setting said, "*my personnel challenges, I get is* over bleeding for example my periods used to last for 3 days, this drug push it for a week or two weeks, sometimes I experience headache even if you check for malaria or typhoid they don't get, and thirdly it makes it difficult for you to perform heavy work because you get tired easily and heavy bleeding make it difficult². (ID Number 013)

"I used family planning in a hidden way because the father of my children does not allow me to use it because of rumors about FP, but because I know it does not cause harm, I continue to go for it without his knowledge". (ID Number 014)

Another client said, "I have knowledge and ever used modern contraceptives, but my challenge I get from FP is the period stays for long duration, I used to see my periods for 3 days and 4th day it gets finished but now it last for a week, it has made me to lose weight, become weak and experience headache". (ID Number 015)

"The challenge I get from using FP is my period has become irregular, I experience abdominal pain, and it has caused infection to my womb". (ID Number 016)

Can you tell me about the socio-cultural obstacles that affect the utilization of modern contraceptives in your area? The respondents cited partners'/family disapproval, religion discourages FP, e.g., catholic, Muslim (encourage natural FP, people should multiply), culture denies (encourage natural FP), and perception of sexual immorality deter young people.

"I discuss FP with my husband but he refuses me to use it, but I went ahead to use without his knowledge and when I started experiencing side effects it brought miss understanding at home and he said he does not want anyone using FP at his home". (ID Number 015)

"Once you are young woman and you use modern contraceptives or involve in open discussion about modern contraceptives, community members believe that you are against the culture they encourage use of traditional or natural methods". (ID Number 003)

"I have not gone for family planning because I hear people say your period will last for long time and you will fail to conceive when you need a child". (ID Number 004)

Another respondent was quoted saying, "Once you are married and you use contraceptives, family/community members believe that you are prostitute and you don't want to bear children". (ID Number 018)

When asked about the various socio-cultural barriers in relation to the use of modern contraceptives, they responded as follows:

"The socio-cultural issues in the community are. it brings miss-understanding with husband, elders in the community, father or mother in-laws if they learnt that you are using FP, religion also does not allow and believes God has blessed us to multiply and finish the eggs you have, so the religion talks negative about FP methods". (ID Number 006)

"Religion such as Muslim does not allow you to use FP, so if you go for it, they will say the husband should divorce with you because you are prostitute and cheating on your partner". (ID Number 009)

When asked about what they think about health care/institution factors that affect the community utilization of modern contraceptives, they mentioned the absence of stock, discouragement by fellow clients, delay at the health facility, privacy and confidentiality by service providers, consent from the spouse, the attitude of service providers, e.g., nurses (are not friendly), absence of service providers, inadequate information,

One of the respondents was quoted as, "*The challenges I get from health facility is the nurses shout on people and when you inject FP, they don't tell you when it will expire, they waste your time a lot even if people are few they don't take initiate to serve people very fast*". (ID Number 016)

"The challenge we experience is a delay in waiting time because people are many at health facility but also at grade 2 health Centre, they only have injectable and oral pills methods, other methods of your choice like implants are not available". (ID Number 006)

"The challenge at health facility is stock out of preferred choice, sometimes if you want for one year they say it is over we have for three months, they tell you to go back and give next appointment when they expect the methods will be available". (ID Number 020). "The challenge at health facility is sometimes you don't find service providers and they shout on people when you need help from them". (ID Number 021)

"We face a lot of challenges, they tell you to come with your husband, shout on you that make you fear to go to hospital and the health worker failed to provide for me adequate information about the side effect (Over bleeding) that I experienced while using FP this discouraged me to continue using FP". (ID Number 022).

"The challenge at health facility is stock out of preferred methods. When you visit but the good thing is they give you appointment when they expect the methods to be available, secondly the nurses are not polite, they talk as if they were annoyed before they don't talk friendly and that makes you fear and will make you go back and not return for the services". (ID Number 012).

3.3. Discussion

3.3.1. Individual Barriers to Utilization of Modern Contraceptives

The study indicated that the desire for children was not associated with the use of modern contraceptives with 30% (95% CI: 0.279 - 0.756), P-Value of 0.002 and OR of 0.456, which is significant. This implies that young women have 0.5 times lower chances of not utilizing modern contraceptives. The reasons could be that females with one child or two have more interest in children and they can stop the family planning anytime they want, so this does not affect the use of modern contraceptives. This finding agreed with the UDHS 2016 report, which indicated women with one child have a 4% chance of using contraceptives and will want to have an average family size of 4.0 children. The more children a woman already has, the more likely she may not want more children and is likely to use contraceptives [7].

Similarly, Marital status was statistically significant with 21.3% (95% CI: 2.002-5.091), P-Value of 0.000 and OR of 3.193, which means there are 3.2 times higher chances of not using contraceptives when married. This may be because married women will want to have at least three to four children or above and start spacing children and limit the number due to responsibilities that come with childbearing. The quantitative is in line with the qualitative study where 1D 018 was quoted as "Once you are married and you use contraceptives, family/community members believe that you are prostitute and you don't want to bear children". This study is different from a study conducted by Cohen *et al.* 2020, where unmarried young people see modern methods of contraception as inappropriate for people like them and described by the youth as most appropriate or exclusively appropriate for married women with children who would like to space their births [4].

3.3.2. Social-Cultural Barriers to Utilization of Modern Contraceptives

The study has shown cultural influence tends to be a barrier to the utilization of modern contraceptives with 21.3%, (95% CI: 1.218 - 3.298), P-Value of 0.006 and OR of 2.004, which is significant. This means there are 2 times higher chances of not using modern contraceptives due to the fact that the culture does not openly

allow discussion about sexuality related issues with females and hence majority end up relying on traditional or natural methods, this findings are in line with qualitative findings where one of the respondents was quoted saying "Once you are a young woman and you use modern contraceptives or involve in an open discussion about modern contraceptives, community members believe that you are against the culture they encourage use of traditional or natural methods". (ID Number 003). These findings are in line with Dioubate *et al.* (2021), which found that adolescents and youth refrain from discussing such topics with parents (fathers, mothers, sisters) and sometimes with their spouses because they feel that this avoids any suspicion of any sexual activity or life [11]. The same findings were reported by UDHS (2016), where there is limited cultural space to discuss sexuality between parents/guardians and children, which means that young people are often left to seek information on sexuality matters on their own or to experiment with sex, and hence, engage in risky sexual behavior [7].

The study showed family/community influence tends to be a barrier to the utilization of modern contraceptives with 46.5% (95% CI: 1.084 - 2.493), P-Value of 0.019 and OR of 1.644, which is significant. This implies that family/community influence contributed to 1.6 times higher chances of not utilizing modern contraceptives. The reason is perhaps that in African settings, family/community members such as elders and in-laws believe in a collectivist culture where the decision is based on what is good for the community and rights of families and communities come first before individual rights. Therefore, family/community members are concerned and influential about what defines themselves as a group, this quantitative study is in agreement with qualitative findings where participants ID 006 reported that "family/community members such as elders, in-laws brings missunderstanding when they find out that women are using modern contraceptive". However, this study is different from the study conducted by Ouma et al. (2017), which found that 5% said families forbid the use of family planning. The difference in barriers to utilization could be that the study in Atiak Health Centre IV was only confined to a health facility with a limited geographical catchment area that restricted participation of those who cannot come to the health facility, unlike the one in Moyo, which was carried out in the entire district, and involve moving to household level [12].

3.3.3. Healthcare/Organization Barriers to Utilization of Modern Contraceptives

The study showed long waiting times tend to have no influence on the utilization of modern contraceptives with 26.1% (95% CI: 0.258 - 0.756), P-Value 0.003 and OR of 0.442, which is significant. This implies that OR of 0.4 times lower chances of not utilizing modern contraceptives. This finding is probable due to the fact that some users are formally employed or doing business and they can access contraceptives in private settings where there is no waiting time or crowding as compared to the majority who access it in public facilities, hence reducing the congestion in public facilities. In a qualitative study, participant ID 016 said, "sometimes

people are few, but nurses don't take initiative to serve people very fast". This finding is different from those of a study by Nalwadda *et al.* (2010), who reported that limited opening hours and long waiting times are a healthcare barrier to modern contraceptives [13].

3.4. Conclusion

The study findings disclosed that marital status, Cultural influence, and Family/community influence were found to be associated with barriers to utilization of modern contraceptives. Desire to have children and long waiting time tends to be not associated with the use of modern contraceptives among young women. In a nutshell, the findings of this study have shown both individual and socio-cultural factors contribute to the low utilization of modern contraceptives among females aged 15 - 24 years, and these need to be addressed with the involvement of different stakeholders. The study recommends that the Ministry of Health should reinforce community engagement programs or advocate through local leaders to address cultural issues, break family/community member's chains on collectivist cultures and focus on individualism culture to address the rights and needs of young women who are willing to use modern contraceptives. The District Health Officer should scale up the sensitization awareness program through radio talk shows, community meetings, or events and empower health workers and VHTs to increase the uptake among non-users and other methods that are underutilized or not used at all. More outreach/mobile clinic programs to the community should be conducted by health facilities to increase the uptake, especially targeting non-users. Further research should be conducted around knowledge and practices in relation to policies regarding contraceptive use among the same age group.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

References

- Hubacher, D. and Trussell, J. (2015) A Definition of Modern Contraceptive Methods. Contraception, 92, 420-421. <u>https://doi.org/10.1016/j.contraception.2015.08.008</u>
- [2] Fatuma, N., Theresa, P., Joseph, R., Flavia, N., Lorraine, O., Paul, M., et al. (2022) Ever Use of Modern Contraceptive among Adolescents in Uganda: A Cross-Sectional Survey of Sociodemographic Factors. *Health*, 14, 696-723. <u>https://doi.org/10.4236/health.2022.146051</u>
- [3] Murigi, M., Butto, D., Barasa, S., Maina, E. and Munyalo, B. (2016) Overcoming Barriers to Contraceptive Uptake among Adolescents: The Case of Kiambu County, Kenya. *Journal of Biosciences and Medicines*, 4, 1-10. https://doi.org/10.4236/jbm.2016.49001
- Cohen, N., Mendy, F.T., Wesson, J., Protti, A., Cissé, C., Gueye, E.B., *et al.* (2020) Behavioral Barriers to the Use of Modern Methods of Contraception among Unmarried Youth and Adolescents in Eastern Senegal: A Qualitative Study. *BMC Public Health*, 20, Article No. 1025. <u>https://doi.org/10.1186/s12889-020-09131-4</u>

- [5] Ochako, R., Mbondo, M., Aloo, S., Kaimenyi, S., Thompson, R., Temmerman, M., *et al.* (2015) Barriers to Modern Contraceptive Methods Uptake among Young Women in Kenya: A Qualitative Study. *BMC Public Health*, **15**, Article No. 118. https://doi.org/10.1186/s12889-015-1483-1
- [6] Guttmacher, T.A. (2015) Adolescents in Uganda: Sexual and Reproductive Health. *African Journal of Reproductive Health*, **8**, 41-48.
- [7] Uganda Bureau of Statistics (2016) UDHS I. "Uganda Demographic and Health Survey".
- [8] Moyo District Health Information System (2020) DHIS 2.
- [9] Lauren, T. (2023) Simple Random Sampling Definition, Steps and Examples. https://www.scribbr.com/methodology/simple-random-sampling/
- [10] Kelly, S.E. (2010) Qualitative Interviewing Techniques and Styles. In: Bourgeault, I., Dingwall, R. and de Vries, R., Eds., *The SAGE Handbook of Qualitative Methods in Health Research*, Sage Publications Ltd., 307-326. https://doi.org/10.4135/9781446268247.n17
- [11] Dioubaté, N., Manet, H., Bangoura, C., Sidibé, S., Kouyaté, M., Kolie, D., *et al.* (2021) Barriers to Contraceptive Use among Urban Adolescents and Youth in Conakry, in 2019, Guinea. *Frontiers in Global Women's Health*, **2**, Article ID: 655929. <u>https://doi.org/10.3389/fgwh.2021.655929</u>
- [12] Ouma, S., Turyasima, M., Acca, H., Nabbale, F., Obita, K.O., Rama, M., et al. (2015) Obstacles to Family Planning Use among Rural Women in Atiak Health Center IV, Amuru District, Northern Uganda. *East African Medical Journal*, **92**, 394-400.
- [13] Nalwadda, G., Mirembe, F., Byamugisha, J. and Faxelid, E. (2010) Persistent High Fertility in Uganda: Young People Recount Obstacles and Enabling Factors to Use of Contraceptives. *BMC Public Health*, **10**, Article No. 530. https://doi.org/10.1186/1471-2458-10-530

Abbreviations and Acronyms

DHIS	District Health Information System
FP-CIP	Family Planning Costed Implementation Plan
IUCs	Intrauterine Contraceptives
MCPR	Modern Contraceptive Prevalence Rate
МОН	Ministry of Health
REC	Research Ethical Committee
TFR	Total Fertility Rate
UCU	Uganda Christian University
UDHS	Uganda Demographic Health Survey
UNFPA	United Nation Fund Population Agency
VHT	Village Health Teams