



Utilization of Reproductive Health Services and Associated Factors among Youths in Mombasa County, Kenya

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Authors' contributions

This work was carried out in collaboration among all authors. Authors AWK and SAY initiated the study and made major contributions to the study design. Authors SAY and BO collected the data and drafted the manuscript. Authors SAY and RRS did statistical analysis. All authors read and approved the final manuscript.

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ABSTRACT

Background: Reproductive health has become a global concern that is either poorly understood or not fully appreciated among the youth. Access to reproductive health services is important for protecting youth from STIs and unwanted pregnancy problems.

Aim: The study sought to establish utilization of reproductive healthcare services and associated factors among youths in Mombasa County, Kenya.

Study Design: A descriptive cross-sectional study was carried out between August 2018 and January 2019.

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Methodology: A self-administered, structured questionnaire was utilized to gather information. The information gathered was summarized using an SPSS database. The data was analyzed with SPSS version 22. Logistic regression was done to identify possible factors associated with reproductive health service utilization. p-value less than 0.05 was considered as a level of significance.

Results: A total of 384 youth participated in the study, including 200 (62.2% females and 184 (37.8%) males. The media was the main source of information for modern family planning methods 200 (50.1%). The majority of users 326 (84.9%) sought contraceptives from pharmacies. 213 (55.5%) were utilizing modern contraceptives. HIV/AIDS risk perception was significantly associated with utilization of reproductive health services [COR=2.34, 95% CI: 2.19-5.34]. The condom was the most used method 134 (34.9%). Having knowledge about reproductive health services [COR=2.87; 95% CI: 1.92-3.94] was positively associated with the outcome. Male respondents were three (3) times more likely to use condoms [OR = 2.86, 95% CI: 1.82-4.91] than female respondents.

Conclusion: There was low uptake of contraceptive services among the youth who were sexually active. The condom was the most commonly used contraceptive. Strengthening urban healthcare systems is key to have equality and improve accessibility of FP services among the teenagers and young women.

Keywords: Kenya; reproductive health services; utilization; factors.

1. INTRODUCTION

Globally, there are over 1.8 billion adolescents, and about ninety percent live in developing countries. Most adolescents aged 15–24 years begin to explore their sexuality. Seventy-five percent of Sub-Saharan Africans engage in sex before the age of 20 [1,2]. According to research, youth who have early sexual involvement can have multiple partners. This can result in sexually transmitted infections such as HIV/AIDS and unintended pregnancy [3]. 22.5 million people in Sub-Saharan Africa are living with HIV/AIDS. While ten million youth aged 15-24 years and three million children under the age of 15 are living with HIV/AIDS, respectively. According to studies conducted in Sub-Saharan Africa, half of teenage girls aged 15–19 were involved in sex [4]. Concerns about adolescent intimate and reproductive health have grown as the number of infections, early pregnancies, and HIV/AIDS among youths has increased [5,6]. Abortion cases reported globally range between 36 and 53 million, resulting in annual rates of 32-46 million abortions per 1,000 women. Over two million abortions are performed in Africa annually, while in Kenya, approximately three hundred thousand are performed each year. Globally, twenty million unsafe abortions occur every year, and this is predominantly in developing countries [7]. The high demand for emergency contraception may result in an increase in abortion rates, which are linked to morbidity and mortality among adolescents [8]. The complications of risky abortion account for

30-40% of maternal deaths. This has exceeded the world-wide range of 13%, which causes an increase in maternal mortality in the country [9]. Utilization of reproductive health services among the youth varies not only worldwide but also at the district level. In many nations, utilization of RHS is low and falls behind even after decades of extensive investments [10]. According to a study conducted in Kenya, sexual activity is common among adolescents, the majority of whom are university students [11]. The findings also show that teenagers aged 15 to 19 who do not believe they are at risk of contracting HIV do not change their behavior [12]. According to a study conducted in Sub-Saharan Africa, 80% of young girls and boys have become sexually active by the age of 20 [13]. This has been caused by poverty, which forces young girls to trade in sex to earn family income. The myth that having sex with a virgin girl cures AIDS has led to several older men engaging in sex with younger females in some African countries [14]. Despite the challenges experienced by youth on reproductive health in the county, there is still inadequate access to reproductive health services, and thus the majority of them are not using contraception [15]. There are 600 health facilities in Kenya, but some of the facilities do not offer comprehensive sexual and reproductive health care [16]. Although the country has made significant gains, cases of maternal morbidity and mortality still persist due to prolonged and obstructed labor, unsafe abortion, STDs, and HIV/AIDS [17].

Several providers believe that family planning is only suited for mothers and poses a risk to those who have not had a child [18]. Replacing the term family planning with contraception has been highly advocated by Lancet advocates, which is more neutral [19]. Despite the high number of unmarried youths who engage in sex, there have been few studies on the barriers to family planning among married women and youths [19]. There are few studies on contraceptives focusing on youths and the factors associated with uptake in Mombasa County.

2. METHODS

2.1 Study Location

This research was done in Mombasa County which has several health facilities, including the referral hospital (Coast General Provincial Hospital), Sub-County hospitals, health centers, dispensaries, and private healthcare facilities. Mombasa County is covered by an area of 109 Km². 60% of the residents live in overcrowded informal settlements as their shelters. There is mixed ethnicity among the residents who are engaged in low-income generating activities like sector and small trading. There is high population growth in the county, thus creating high demand for health facilities. The leading cause of death in the area is tuberculosis and HIV/AIDS which represent 50%.

2.2 Study Design

The study adopted descriptive and analytical cross-sectional design. This entailed collection of both qualitative and quantitative data between August 2018 and January 2019.

2.3 Study Population

Youths between ages 15-24 years who are sexually active were interviewed. The study also included key informants interviewees comprised of guidance and healthcare providers.

2.3.1 Inclusion criteria

Males and females aged 15-24 years who resided in the County of Mombasa were included in this study. Those who gave their consent were recruited in the study. Contraceptive service provider were also part of this study.

2.3.2 Exclusion criteria

All individuals who were less than 15 years and those who did not consent were excluded.

2.4 Determination of Sample Size

Fischer *et al.* (1998) formula was employed to determine the size of the sample population exceeding 10,0000.

$$n = z^2_{1-\alpha/2} p(1-p) / d^2$$

Where;

n = Minimum sample size required

d = Absolute precision (5%)

α = Level of significance at 95% confidence interval (5%)

Z = Standard normal deviate corresponding to 95% confidence interval (1.96)

P = Assumed proportion of the population that donates blood (this is not known hence it is assumed to be 50%).

$$n = (1.96)^2 \times 0.5(1-0.5) / (0.05)^2 = 384$$

2.5 Sampling Procedure

Purposively sampling was used to select Mombasa County. A random selection of youths between ages 15-24 years were selected in the Sub Counties. Those who had not been interviewed with the semi-structured questionnaires were purposively selected for the focus groups discussions. Purposive sampling technique was employed to select key informants.

2.6 Data Collection Techniques

Pre-tested questionnaire that were structured were used to gather information qualitatively. The administered questionnaires were either in English or Kiswahili. Participants were guided by research assistants to respond to questions. Completed questionnaires were checked for completeness and health providers conducted key informant interviews.

To collect qualitative data, four (4) Focus Group Discussions (FDGs) were conducted.

2.7 Data Management and Analysis

Data was entered and stored in Microsoft Excel program. Data was then exported to R data analysis software for analysis. Descriptive

analysis was presented in form of percentages, frequency tables and charts. Inferential statistics were computed using Pearson’s Chi-square Tests presented in cross tabulations. This was done at 95% confidence interval and p-values of less than 0.05 were considered significant in testing the association between study variables. The study also used prevalence odds ratio.

3. RESULTS

3.1 Socio-Demographic Characteristics of the Respondents

There were three hundred and eighty four participants in this study. The highest age group was between 15-19 years (52.1%) followed by 20-24 (47.9%). The greatest proportions were female (62.2%) while 37.8% were male. A majority of the participants were single (65.1%)

while 34.9% were married. In regards to education, only 40% had secondary level while only 18.2% had tertiary education. Majority of the respondents (40.4%) were students and 37.5% unemployed (Table 1).

3.2 Knowledge of Reproductive Health Services among Youth

Out of the 384 study participants only 195 (50.8%) had heard some of the modern family planning method (MFPM). The main source of information relating FPM was media 200 (50.1%), health facility 95 (24.7%) and friends and peers 64 (16.7%). The majority of participants (205, (53.4%) preferred regular pills/injections while 170 (44.3%) other types. The most important reasons why youths use the MFPM were child spacing 260 (67.7%) and limiting family size 120 (31.3%). Regarding acceptance of

Table 1 Socio-demographic characteristics of respondents

Variable	Frequency (N=384)	Percentage
Age	15-19	200
	20-24	184
Sex	Female	239
	Male	145
Marital status	Single	250
	Married	134
Religion	Christianity	219
	Islam	161
	Others	4
Education level	None	15
	Primary school	145
	Secondary school	154
	Tertiary education	70
Occupation	Unemployed	144
	Self employed	30
	Employed	25
	Student	155
	House wife	30

modern contraception by the culture, the majority of the respondents 209 (54.4%) that it is not accepted by their culture and 175 (45.6%) showed that their culture accepts the utilization of modern family planning methods. Child preference 164 (42.7%) was the main reason why youth were not utilizing modern family planning methods. Others were religious reasons 143 (37.2%) and affecting health 77 (20.1%) respectively. Two hundred and fourteen nine (64.8. %) respondents had never discussed MFPM with their family and friends while 97 (25.3%) normally do. Two hundred and ninety five (76.8.2%) of study participants agree that too many children can improve family income, while 114 (29.7%) disagree. The study findings showed that 270 (70.3%) of the study participants agreed that high infant and child mortality should be compensated by too much birth, while 114(29.7%) disagreed. A majority of the respondents 290 (75.5%) stated that religion considers use of family planning as sin, while 94 (25.5%) disagree. Some of the reasons for using a particular contraceptive are to prevent pregnancy 175 (45.6%), safety and accessibility 105 (27.3%) and to prevent HIV/STIs 104 (27.1%). Uptake of contraceptives was statistically significant with these factors ($p < 0.05$). Three hundred and twenty six (84.9%) respondents obtained contraceptives from pharmacies/chemists, 35 (9.1%) from clinics and hospitals, and 23 (6.0%) from shops or supermarkets (Table 2). Perception of risk towards HIV/AIDS acquisition was significantly associated with service utilization (COR=2.34, 95% CI: 2.19-5.34; $p < 0.05$).

3.3 Factors Influencing Modern Contraception among Respondents

Modern contraception use (all methods) among the participants was at 213 (55.5%) while non-users were 171 (45.5%). One hundred and seventy one participants, who were not currently using modern contraceptives, reported ever having used any method in their life. Unmarried females below 20 years were the common non users of modern contraceptives. Variables such as gender, age, marital status, education level, number of children, siblings, and fertility were not statistically significantly with modern contraceptive use among the respondents ($P > 0.05$). Despite marital status was not statistically significant in the model, after adjusting for other factors, being married increased the probability of using modern contraceptives by nearly 50% compared

unmarried (OR=1.45, 95% CI = 0.62-1.77]. Age below 20 years, having no children and the desire to have children were non influencers of modern contraceptive use (OR = 0.80; 95% CI=0.40 – 1.21, OR = 0.93:95% CI=0.41-2.34 and OR = 0.76:95% CI = 0.82-2.83]. Having knowledge about reproductive health services [COR=2.87; 95% CI= 1.92-3.94] was positively associated with the outcome (Table 3).

3.4 Factors Influencing Use of Condoms among Respondents

After adjusting for other factors in logistic regression model analysis, use of condoms, sex and marital status were statistically significant. Male respondents were nearly three times (3) more likely to use condoms [OR = 2.86; 95% CI=1.82-4.91] than females. Similarly, respondents who were unmarried were two *(2) times more likely to use condoms [OR=2.48; 95% CI=1.31-4.74] than respondents who were married. Even though being childless was not significant in the model at 5% level, but it increases the chances of using condoms by 25% [OR = 1.25; 95% CI = 0.81-2.71]. Factors like number of siblings and education level were non influencers of condoms of condom use [OR=0.96; 95% CI = 0.56-1.83, and OR = 0.76; 95% CI = 0.57-1.58] as shown in table 4.

4. DISCUSSION

This study aimed to determine how widely used contemporary contraceptives are among young people in Mombasa County and the associated factors. 44.5% of respondents did not use any form of modern contraception, which should be extremely concerning for public health. It would be expected that the participants' high level of HIV/AIDS awareness would have translated into practice, but this result suggests otherwise. Risky sexual behavior persists among youths in higher education, and HIV/AIDS prevalence has risen from 6.4% in 2009-2012 to 7.3% in 2017, with the majority of burdens falling on them. Unwanted pregnancy and unprotected sex among the youths are caused by high sexual activity [20]. Our findings indicate that unmarried females below the age of 20 had a low uptake of modern contraceptives. This could be attributed to the fact that providers of contraceptives are uncomfortable with the prescription of contraceptives to unmarried and in-school youths [21]. Other findings have demonstrated that it is a challenge to meet contraceptive needs in communities where married people are the only

ones presumed to be the users. [22]. The findings suggest that generalized contraceptive services for young people cannot address the low uptake of contraceptives among young people. Because there are more vulnerable subgroups among youth, family planning

programs aimed at young people should target them specifically rather than everyone else. It might be necessary to target specific groups with messages and services to increase the use of contraceptives among young people [23].

Table 2: Knowledge of Reproductive health services among youth (n=384)

Variable	Level	Frequency	Percent %
Ever heard information MFPM	Yes	195	50.8
	No	189	49.2
Source of information	Health facility	95	24.7
	Print/Electronic Media	200	52.1
	Family/Friends and Peers	64	16.7
	Not hear	25	6.5
Methods of MFPM known	Regular Pills/Injections	205	53.4
	Other Types	170	44.3
	I do not know	9	2.3
Reasons youth use MFPM	Child spacing	260	67.7
	To limit family size	120	31.3
	I don't know the reason	4	1.0
Cultural acceptance of MFPM	Yes	175	45.6
	No	209	54.4
Reasons youth not using MFPM	For religious reason	143	37.2
	Child preference	164	42.7
	Rumour (Affects health)	77	20.1
Family/Friend Discussion for the use of MFPM:-	never discussed	249	64.8
	Discuss usually	97	25.3
	intention to Discuss	38	9.9
How to make decision to use MFPM	Jointly	197	51.3
	Husband/Friend	187	48.7
Too many children improve family income.	Yes	295	76.8
	No	89	23.2
High infant/child mortality be compensated by too much birth	Yes	270	70.3
	No	114	29.7
Religiously it is considered FP as sin	Yes	290	75.5
	No	94	25.5
Birth spacing is important for child & maternal health	Yes	205	53.4
	No	179	46.6
Reasons for using contraceptives	Cheap/accessibility/safe	105	27.3
	Prevent HIV/STIs	104	27.1
	Prevent pregnancy	175	45.6
Source of contraceptives	Pharmacy	326	84.9
	Clinic or Hospital	35	9.1
	Shop	23	6.0
No. of sexual partners	1	305	79.4
	2 and above	79	20.6

Table 3: Factors Influencing Modern Contraception among Respondents.

Independent variables	Use of modern contraceptive		Unadjusted		Adjusted	
	Yes	No	OR	CI-95%	OR	CI-95%
Age						
20-24 years	78	106	1.0		1.0	
15-19 years	135	65	0.81	(0.49-1.18)	0.80	(0.40-1.21)
Sex						
Female	138	101	1.0		1.0	
Male	75	70	1.41	(0.76-1.85)	1.17	(0.64-1.87)
Marital status						
Married	90	44	1.0		1.0	
Single	123	127	1.04	(0.69-1.66)	1.65	(0.73-2.94)
Schooling status						
Out of school	123	106	1.0		1.0	
In-school	90	65	1.14	(0.69-1.78)	1.15	(0.62-2.96)
No. of children						
3-5	36	29	1.0		1.0	
1-2	84	68	0.95	(0.46-1.82)	0.04	(0.44-2.33)
0	93	74	0.87	(0.44-1.78)	0.89	(0.44-2.33)
No. of siblings						
≥ 5 siblings	132	107	1.0		1.0	
≤ 4 siblings	81	64	0.85	(0.55-1.71)	0.66	(0.56-1.63)
Fertility						
≤ 4 children	157	120	1.0		1.0	
≥ 5 children	56	51	0.88	(0.54-1.58)	0.89	(0.49-1.68)
Knowledgeable about RHS						
Knowledgeable	130	65	2.94	1.99-3.98	2.87	1.92-3.94*
Not Knowledge	83	106	1.0	1.0		
Attitude towards RHS						
Bad attitude	90	80	1.0			
Good attitude	123	91	0.98	0.65-1.67	1.50	0.73-1.92

In our study, males and single people were more likely to use condoms than female and married respondents. Respondents aged 20–24 years and the married reported using Depo-Provera compared 15-19 years and the unmarried respondents. Findings from studies that were done in Kenya and Nigeria showed that men used condoms more frequently than

women [24]. Similar findings among the Hispanic indicated that females were at a higher risk of having unprotected sex compared to males [25]. Furthermore, studies conducted in Kenya, Ghana, and Brazil [26] revealed that condoms were used less frequently by married couples than by single people.

Table 4: Factors Influencing Use of Condoms among Respondents.

Independent variables	Condom Use		Unadjusted		Adjusted	
	Yes	No	OR	CI-95%	OR	CI-95%
Age						
20-24 years	54	130	1		1	
15-19 years	80	120	1.86	(0.13-2.84)**	1.01	(0.66-1.87)
Sex						
Female	54	185	1		1	
Male	80	65	3.70	(2.19-3.45)	2.86	(1.82-4.91)**:
Marital status						
Married	34	100	1		1	
Single	100	150	3.90	(2.38-3.65)	2.48	(1.31-4.74)*
Schooling status						
Out of school	64	165	1		1	
In-school	70	85	0.60	(0.25-1.57)	0.76	(0.57-1.58)
No. of children						
With a child/ren	44	117	1		1	
Without a child	90	133	3.56	(1.98-1.83)	0.25	(0.81-2.71)
No. of siblings						
≥ 5 siblings	200	75	1		1	
≤ 4 siblings	19	90	0.10	(0.67-1.88)	0.96	(0.56-1.83)
Fertility desires						
≤ 4 children	80	150	1		1	
≥ 5 children	54	100	0.72	(0.95-2.82)	1.45	(0.65-3.82)

Male condoms were also found to be the most preferred method of contraception in our study. This is consistent with previous research, where the most commonly used contraceptive was the condom [27,28]. The results showed that youths prefer the use of contraceptives like condoms and contraceptive pills which are readily available. This demonstrates that there are knowledge gaps among youths, lack of access to contraceptive information and services. Onset of reproduction among the youth could be the reason for the use of short term contraceptives. This will also mean youth prefer the use of condoms; hence, promotion activities targeting condom use will be more effective among the youth [29].

The findings of this study showed that print and electronic media were the most widely used information sources. The majority of respondents (55.5%), however, had used some form of contraception. These findings support the KDHS (2015) finding that more than 97% of unmarried

men and women were aware of contraceptives. Contraception awareness among university students in Kenya is currently much higher than the 39% rates that were noted between 1990 and 2013" [30]. Other studies that have reported on varying percentages of contraceptive awareness among college students are Kathmandu, Nepal, 66% [31], Ghana (43%) [32] and Cameroon (63%) [8]. In our study, there was an improvement in provider perceptions in prescribing contraceptives to young people, but there is a gap in service provision where providers are biased either on age or marital status, which was also found in other research [33,34]. All the providers mention offering counseling services on abstinence other than contraceptive methods when the youth come for the contraceptive services. Other studies conducted in Uganda revealed that providers believed contraceptives caused infertility, which affected service provision [35]. By the year 2030, Kenya hopes to have a generation free of issues relating to reproductive health, such as HIV/AIDS

and unintended pregnancies. This necessitates enhancing the use of reproductive health services and associated tactics, which may include addressing the reproductive health issues. As a result, this finding will be useful to policymakers and healthcare planners working on the local and national levels to prevent problems with reproductive health and makes a significant contribution to the literature.

5. CONCLUSION

Young people did not use contraceptive services very often. The most widely used form of birth control was the condom. Age, sex, marital status, level of education, number of children, number of siblings, and desire for children were all significantly related to the use of contraceptives ($P < 0.05$). Urban healthcare systems need to be strengthened in order to provide equal and accessible FP services, particularly for young people, women, and people from low socioeconomic backgrounds.

CONSENT AND ETHICAL APPROVAL

The research obtained clearance from the Mombasa county scientific steering committee. Written consent was also sought from each respondent. The participants were made aware that taking part in the study was entirely voluntary and free from force or influence. The research participants were made aware of their right to withdraw at any time if they felt uncomfortable continuing; nonetheless, they were urged to take part in the whole study if at all feasible. Their names were kept private, and the data gathered was exclusively used for the investigation. The research made sure the individuals were safe.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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