Accessibility on utilization of contraceptive methods among youths: an analytical cross-sectional study in Westlands Sub County, Nairobi County.

Abstract

Background: Over 20 million young people who need modern contraceptives do not use any, making the low uptake of these methods among adolescents a major public health concern. Information on contraception is abundant among the population but the uptake of contraception is still low, especially among the youth in developing nations. The study sought to examine how accessibility affects the utilization of contraceptive methods among the youths in the Westlands Sub-County, Nairobi County, Kenya.

Methods: The study employed a cross-sectional design where quantitative data was obtained. Simple random sampling was used to select 13 health centers in Westland's Sub County and youths visiting the facilities for services were sampled using both systematic and simple random sampling. For this study, 398 participants made up the sample size where the Sloven formula for sample size calculation was used.

Results: The research found a significant correlation (p=0.00) between youths' use of modern contraceptive methods and the quality of services they received. From this study, the number of children (p=0.503) did not significantly add to the model, but the academic level (p=0.003), marital status (p=0.021), and gender (p=0.001) did.

Conclusions: In conclusion utilization of any method of contraceptives translated to a high contraceptive utilization prevalence in youths, the quality of services that health care providers offer to youths, education level, and demographic factors such as gender, and marital status, have continued to greatly affect and lower overall contraceptive utilization prevalence among the youths in developing nations.

Keywords: Contraceptives, Family Planning, Reproductive Health, Unwanted Pregnancies, Youth

1. Introduction

A youth is generally defined as a person in the transitional phase between childhood and adulthood, Kenya's National Youth Policy considers youth to be those aged 15 to 34 years. [1] Globally, the prevalence of contraceptive uptake has been on the increase. The increase in contraceptive uptake is attributed to the development of modern contraceptives and increased coverage and development of family planning and reproductive health programs. [2] Contraceptive use has enabled women especially the youth to postpone, space, limit, and prevent unwanted pregnancies. Contraceptive services are important not only to maternal and child health but also to meet the targets set by the Sustainable Development Goals (SDG). [3] Achieving health and promoting the well-being of people at all ages is the third Sustainable Development Goal (SDG). Young people's contraceptive behavior has positively changed in Africa over the past thirty years. Among Africans, youths under 25 make up 64% of the population, and adolescents make up one in every ten Kenyans.[4] The youths normally experience gradual attraction towards heterosexual relationships which eventually leads to sexual activity.

Due to the media's portrayal of sex as thrilling and risk-free, a sizable portion of young people without spouses are starting to engage in sexual activity at an early age. Specifically, 39% and 65% of Kenyan unmarried girls and boys, respectively, have engaged in sexual activity, making up 52% of the country's youth between the ages of 15 and 19.[5] Statistics indicate that the utilization of contraceptives is low in the Westlands, even with the growing adoption of this method of birth control.[6] Kenya has a high adolescent birth rate, and in urban areas like the Westlands, unplanned pregnancies can derail education and career prospects. This also increases the risk of unsafe abortions, which are a leading cause of maternal mortality. In Westlands, many young people face barriers to accessing youth-friendly health services (YFHS). These services are essential for addressing sexual and reproductive health (SRH) needs, including contraceptive use, STI prevention, and counseling.[6] This could be directly associated with the clients' contraceptive utilization. It is against this background that the area was selected for study.

The biggest challenge that youths face is the lack of health services that focus on the needs and desires of young people as a priority. The experiences of adults and their points of view are different from those of youths. To ensure effective delivery of health services, youth-friendly services must be established to encourage youth to be advocates and champions of their own social and health welfare.[7] Unwanted pregnancies, unsafe abortions, and sexually transmitted diseases among young people have been reported to be the contributing factors to the increase in morbidity and mortality in developing countries.[8] Annually an estimated 16 million adolescents become pregnant with about three million of them undergoing unsafe abortion. In addition, adolescents are at risk of pregnancy-related complications as compared to other reproductive-age women.[10]

Youths' access to family planning services and information on reproductive and sexual health issues is restricted in many African and Kenyan communities that specifically devalue youth sexual activity. Persons, communities, and the local and global health systems are impacted by the restricted access to reproductive wellness services and information.[11] Therefore, the differences in access to reproductive health services between people of varied socio-economic status, and those living in urban and rural areas are a global equity issue of importance.[12] Regardless of the extensive promotion of availability and access to health services especially reproductive health globally the disparities among communities especially among young people still remain more so in those living in resource-limited areas.[13] The objective of the study was to assess the accessibility on utilization of contraceptive methods among youths in Westlands Sub County, Nairobi County, Kenya.

2. Materials and Methods

2.1 Study design

A cross-sectional analytical study design was used for this research, which produced quantitative data on the factors influencing youths in Nairobi County's Westlands Sub-County's use of contraceptive services. This study design allowed researchers to measure the accessibility to contraceptives and contraceptive utilization at the same point in time.

2.2 Sampling technique

Health facilities were sampled randomly therefore Westlands Health Center, Gichagi Dispensary, Lower Kabete Dispensary, Mji wa Huruma Dispensary, Karura Health Center, Kangemi Health Centers, MSK Kangemi, Amurt Health Center, Eagle Health Center, Chiromo Medical Center, Medanta Africare Medical center and Avenue Hospital were considered in the research. In each health center, youths between the ages of 15 and 24 were selected through systematic random sampling which involved selecting every K-th element from a list of the population after choosing a random starting point. The participants were selected as they attended the selected health centers for the services until the desired number of 398 was reached.

2.3 Study population

The study targeted youths aged between 15 to 24 years who were residents of Westlands and sought services at health centers in Westland Sub-County when the study was conducted. The study included youths aged 15-25 years and youth who are sexually active or have been sexually active participants who were residents of Westlands Sub County to ensure that the findings were representative of the local population. The study excluded participants living outside Westlands as their experiences may not reflect those of the target population, Youth Below 15 or Above 25 were also excluded from the study.

2.4 Sample size determination

The size of the sample for the present investigation was determined using Sloven's formula, which led to the recruitment of 398 study participants. Sloven's Formula is a commonly used method for calculating sample size in a population when the population size is large and the sampling method is simple random sampling. It provides an estimate of the sample size needed to achieve a specified level of confidence and margin of error.

2.5 Data collection

Structured questionnaires were used to gather primary data. Data from youths enrolled in particular healthcare facilities was gathered using the questionnaires. There were five sections on the questionnaire, some of which asked for demographic information and others which focused on the objectives of the research. To cater for validity, supervisor opinions were considered, in addition, a reproductive health expert was asked to review the data collection tools. To cater for reliability, internal consistency was measured using the Cronbach alpha coefficient. A Cronbach alpha coefficient of 8.1 was obtained meaning the tools were reliable for data collection.

2.6 Data analysis

In the present investigation, descriptive statistics were used to analyze the data. Data analysis was done using the Statistical Packages for Social Science (SPSS) version 23. When coding with the designated coding scale, statistical values were produced. A chi-square test for independence was used to assess the relationship between categorical variables and contraceptive use. In addition, logistic regression was used to assess further association for variables found to be significant in the chi-square test for independence. Percentages and frequencies were used in descriptive statistics. All statistical tests were conducted at a 5% level of significance ($p<0.05$). Tables were utilized to help create the discussions and provide a clearer explanation of the findings.

2.7 Ethical consideration

The Institutional Research Ethics and Review Committee (IREC) at Mount Kenya University (MKU) granted ethical approval for the research to be conducted. The National Commission for Science, Technology, and

Innovation (NACOSTI) was consulted to obtain permission to conduct the research. Permissions from the Westlands sub-county health department were also acquired. The respondent's informational discretion was maintained. An informed consent form was used for youths aged 18 years and above while an informed assent form was used for youths below the age of 18 years. Involvement in the investigation was entirely voluntary. Psychosocial support was provided to reduce the possibility of stigmatization by directing the impacted party to a reputable hospital psychologist for suitable care and assistance. Study respondent's anonymity was strictly maintained by using unique numbers instead of real names.

3 Results

3.1 Response rate

The study targeted 431 youths living in Westlands Sub County visiting various sampled health facilities for contraceptive services. Out of these 398 questionnaires were filled and considered for analysis, representing a response rate of 92.3% and a non-response rate of 7.7% (33 respondents) occasioned by refusals and withdrawal from the study.

Social demographic characteristics of the study respondents

Table 1 below provides the social demographic characteristics of the study respondents. More than a third(40.7%) of the study respondents had a primary level of education while only a few(6.5%) had no formal education. More than half(67.6%)of the study respondents were aged between 15-19 years. Close to three-quarters (70.9%) of the study respondents were single. More than half(61.8%)of the study respondents were females while more than a third(38.2%) were males.

Table 1: Social demographic characteristics of the study respondents

Variables	Categories	Frequency	%
Education level	tertiary	102	25.6
	secondary	162	40.7
	primary	108	27.1
	No education	26	6.5
Age	15-19	269	67.6
	20-24	129	32.4
Marital status	single	282	70.9
	married	106	26.6
	divorced	4	1
	window	6	1.5
Gender	male	152	38.2
	female	246	61.8

3.2 Level of awareness on the use of contraceptive methods among youths

To assess the level of awareness of the use of contraceptive methods among youths, the variable measuring academic level was used. The total percentages of the academic level categories were used to indicate the shared proportion of the usage of contraceptive methods within each of the combinations as shown in table 2 below. The study established that 41% of the participants had attained primary-level education. In addition, 11% of youths with primary-level education are currently using modern contraceptives. In addition, among the sampled youths to participate in the study 30% who indicated to have primary level education did not use any modern contraceptive method. 28% of the youths who participated in the study had secondary-level education. Among the youth with secondary education, only 19% were using modern contraceptives compared to 9.40% who were not using any modern method of contraception. 31% of the sampled youths reported to have attained tertiary level of education. Among those with tertiary education, 25% were using modern contraceptive methods as compared to 6% who were not using any method.

Table 2. Level of Education and use of modern contraceptives

		Yes	No	Total
Level of Education	Primary	43	118	162
		11%	30%	41%
	Secondary	75	37	112
		19%	9%	28%
	Tertiary	100	25	125
		25%	6%	31%
Total		218	180	398

3.3 Accessibility and utilization of contraceptive methods among youth

As indicated in Table 3, the test is statistically not significant, p-value= 0.609 > 0.05 (ns). This implies that the utilization of the methods of contraceptives is not associated with the accessibility of the services the youths seek from the health facilities they visit.

Table 3. Relationship between health Facility Accessibility and Contraceptive Use

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.262[a]	1	0.609		
Continuity Correction[b]	0.15	1	0.698		
Likelihood Ratio	0.262	1	0.609		
Fisher's Exact Test				0.622	0.35
Linear-by-Linear Association	0.261	1	0.61		
N of Valid Cases	398				

3.4 Quality of service and utilization of contraceptives among youths

The study evaluated whether there existed any relationship between the utilization of modern contraceptives and the quality of services that youths receive when seeking services for their health concerns, the Chi-square test was used having its procedure fulfilled. Based on the Chi-square Tests in Table 4 results, the test is Statistically noteworthy, $p<0.05$. This implies that the quality of services youths receive is correlated significantly to the utilization of modern methods of contraceptives by youths.

Table 4. Relationship between quality of service and use of contraceptives

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	83.740[a]	3	0.000
Likelihood Ratio	89.875	3	0.000
Linear-by-Linear Association	81.753	1	0.000
N of Valid Cases	398		

3.5 Influence of demographic factors on utilization of modern contraceptives among youths

Youths' use of contraceptives is thought to be impacted by a complex interplay of numerous demographic factors, such as gender, educational attainment, marital status, and number of children. The relationship or combined impact of these four variables on the use of contemporary contraceptive methods was examined. To find out how these demographic characteristics affected a participant's likelihood of currently using any form of contraception, a logistic regression analysis was carried out. The results of the study from the Hosmer and Lemeshoe Test indicate that the logistics regression model is statistically significant, X^2 (7) = 4.673, p-value = 0.700.

From the findings of this study, As indicated in Table 5 below, Academic level (p=0.003), Status of marriage (p=0.021), and gender (p=0.001) were added significantly to the model, but the number of children (p=0.503) did not add significantly to the model. Higher levels of education were associated with an increased likelihood of a youth utilizing any method of contraceptives. As the youths move from one aspect of marital status, that is from being single to married, divorced, or widowed, in this order the likelihood of utilization of any methods of contraceptives decreases. Youths of female gender were 3.47 times more likely to be utilizing any method of contraceptives.

Table 5: Influence of demographic factors on utilization of modern contraceptives among youths

Variables		B	S.E.	Wald	df	Sig.	OR
Step 1[a]	Academic level (1)	0.766	0.342	65.253	1	0.003	2.063
	No of children (1)	0.002	0.261	0.449	1	0.503	1.785
	Marital status (1)	-1.106	0.558	14.225	1	0.021	8.19
	Gender (1)	1.907	0.566	2.571	1	0.001	3.477
	Constant	**20.38**	**602.711**	**0.253**	**1**	**0.619**	**52964.05**

4. Discussion

This research was designed to study the aspects influencing the use of contraceptive methods among the youths in Westlands, Nairobi County, Kenya. Factors that were investigated in this study included accessibility of the health facilities and services that youths seek, the quality of services youth receive when seeking services for their health concerns, education status which may be limiting their knowledge on utilization of methods of contraceptives, and demographic factors such as gender, marital status and number of children one has or desires to have. The sample of this study comprised 64.1% female participants and 35.9% male participants. A higher proportion of female participants was found to be utilizing any method of contraceptives compared to males at the time of this study.

The accessibility factor was not a significant factor affecting the utilization of the method of contraceptives. 57.1% of the youths who participated in this study accessed the health facilities they visited by walking, out of which 54.1% took less than one hour to arrive. 22.9% of those walking to the health facilities were currently using any method of contraceptives. The increased likelihood of a youth utilizing any method of contraceptives. As the youths move from one aspect of marital status, that is from being single to married, divorced, or widowed, in this order the likelihood of utilization of any methods of contraceptives decreases. Single youths were 8 times more likely to use contraceptives as compared to widowed youths. Young single people might feel more empowered to choose their method of birth control since they are not subject to partner pressure or cultural norms. Women may experience social pressure in relationships, particularly in more traditional societies, to use contraceptives that are supplied or managed by their partners. Findings from this research agreed with those of a study carried out in low-middle-income countries(13). Youths of female gender were 3.47 times more likely to be utilizing any method of contraceptives. Women are frequently viewed as the primary caregivers for reproductive health, including contraception, in many societies, including Kenya. Women are more likely to use contraceptives because they typically shoulder the burden of preventing unwanted pregnancies. Findings agreed with those of a study carried out in sub-Saharan Africa. (14)

The education status of the youths was a significant factor indicating lower levels of education are associated with low utilization of methods of contraceptives. The study established that of the youths who participated in the study, 25.0% had a tertiary level of education and were currently using any method of contraceptives while only 6.3% at this level were not using any method of contraceptives. Only 10.9% of those with a primary level of academic were utilizing any method of contraceptives and 29.7% were not using any method of contraceptives. Additionally, out of the 45.3% of the entire sample not utilizing any method of contraceptive, 29.7% of them had a primary or lower level of academic. This associated youths with lower levels of education with low contraceptive prevalence in their lives. From this research, having a tertiary level of education increased the odds of contraceptive use by 2 as compared to those who had a primary level of education. Being educated improves awareness of the benefits of contraceptive use. Study findings from this research agreed with those of a study carried out in Uganda and Pakistan(15,16).

The quality of services offered in health facilities by the health care providers formed a very crucial aspect of studying how the utilization of methods of contraceptives could be affected if this factor is considered. Based on the results of this study, substantial evidence was obtained associating the good quality of services that generally youths receive in any health center they visit with higher percentages of youths utilizing methods of contraceptives. The results of this study sample, 25.0% of youths using any method of contraceptives rated the services they receive as very good and only 6.3% were not using and rated the services as very good. Out of the 20.3% of the participants who rated the services they receive as very poor, 17.2% were not currently using any method of contraceptives and 3.1% were found to be using any method of contraceptives. This shows that more youths receiving quality services translated to high contraceptive prevalence.

The results of the research were similar to those of an investigation done in Senegal, which found that the quality of services had a highly significant impact on youths' use of contraceptives (p=0.000).[16] In addition, research in Nigeria indicated that the majority of the participants who rated the quality of contraceptive services as good were using contraceptives and were adherent to the contraceptive re-visits. [17] The study differed from a study conducted in Uganda that indicated that most youths using contraceptives did not

care much about the quality of services. [18] The study concluded that the majority of the participating adolescent girls focused more on the benefits of contraceptive use such as prevention of pregnancy and STIs.

5. Conclusion

The utilization of contraceptives among youth is influenced by several factors, with the quality of healthcare services, educational level, gender, and marital status playing key roles in determining contraceptive prevalence. A high-quality healthcare service that is youth-friendly can positively impact contraceptive use, but when such services are lacking or are not tailored to the needs of young people, contraceptive use is often low. Additionally, factors such as education level and marital status are particularly significant, with studies showing that higher levels of education are often associated with increased contraceptive use, while unmarried youths tend to have more opportunities for contraceptive use compared to their married counterparts. Conversely, youths with lower educational levels and those who are married may face social and economic barriers that discourage the use of modern contraceptive methods. These findings suggest that improving education and healthcare accessibility, particularly for married youths, could enhance contraceptive use and contribute to higher contraceptive prevalence rates.

6. Recommendations

There is a need for healthcare providers to improve the quality of services they offer while focusing on areas of confidentiality and privacy, adequate information, and counseling regarding contraceptive methods in addition a more targeted campaign should be started to target different segments of the youthful population than has low access and utilization of contraceptives. Youth-friendly services and the quality of services in contraceptive clinics should be improved and made more accessible to improve the utilization of contraceptive services among youths.

Disclaimer (Artificial intelligence)

Option 1:

Author(s) hereby declare that NO generative AI technologies such as Large Language Models (ChatGPT, COPILOT, etc.) and text-to-image generators have been used during the writing or editing of this manuscript.

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