Journal of Medicine, Nursing & Public Health

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ISSN: 2706-6606

Stratford Peer Reviewed Journals and Book Publishing
Journal of Medicine, Nursing & Public Health
Volume 6||Issue 2||Page 80-89||October||2023|
Email: info@stratfordjournals.org ISSN: 2706-6606

Social Demographic Factors Affecting the Uptake of Modern Contraceptives Methods Among Female Adolescents After the First Birth in Kitui County, Kenya

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How to cite this article: **Ndambuki, J., K., Kabue, P. & Ambani, E. (2023). Social Demographic Factors Affecting the Uptake of Modern Contraceptives Methods Among Female Adolescents After the First Birth in Kitui County, Kenya.** ***Journal of Medicine, Nursing & Public Health,*** **6(2), 80-89. https://doi.org/10.53819/81018102t301015**

Abstract

Globally, adolescents make up 16% of the total population, and 55% of unwanted pregnancies among adolescent's end in abortion. Africa has the highest number of adolescents (23%). Adolescents in Kenya experience a higher risk of unintended pregnancies than older women, but contraceptive use among them remains very low. Despite various efforts by Kenya's national and county governments and non-governmental organizations to promote abstinence among adolescents, these efforts have not been successful. In light of this, this study sought to assess the prevalence of modern contraceptives and the social demographic factors affecting the uptake of modern contraceptive methods among female adolescents after the first birth in Kitui County, Kenya. The study was conducted in Kitui County and employed a cross-sectional descriptive survey design targeting adolescent girls between 10 and 19 years who had given birth in the last six months. The results showed that the usage of modern contraceptives was generally low (35.2%). However, based on the factors influencing uptake, it was higher among respondents aged 19 years (57.4%) and those with college education (50.0%). Adolescents with a college education were 3.55 times more likely to use modern contraception (AOR=3.55; p=.000) than those with primary school qualifications. The results revealed that age, education, and marital status were determinants of modern contraceptive use among adolescents. The study advocates for increasing the use of modern contraceptives among female adolescents in Kitui County, recognizing that this is a multi-faceted problem that will require concerted efforts by all key stakeholders to provide a wide range of interventions. Such stakeholders include the community, parents, guardians, peers, school teachers and tutors, religious leaders, healthcare practitioners, and policymakers.

Keywords: *Social Demographic Factors, Modern Contraceptives Methods, Female Adolescents, First Birth, Kitui County*

1.0 Introduction

Adolescent is a young person aged 10–19 years who is experiencing both physical and developmental changes (World Health Organization [WHO], 2018). It is the transition phase from childhood to adulthood. Globally, adolescents make up 16% of the total population (WHO, 2018). The highest percentage of adolescents (80%) live in developing countries (United Nations Children's Fund [UNICEF], 2015). Adolescent reproductive health is one of the twenty-first century's most important healthcare indicators (Women Deliver, 2018). Globally, a large number of adolescents give birth (21 million) every year; additionally, a significant number (55%) have had an abortion (WHO, 2019). In 2013, an estimated 1.3 million deaths occurred worldwide between 10 and 19 years due to pregnancy-related causes (WHO, 2019). Adolescent marriage is a serious violation of human rights. Although there are many factors that fuel such practices, such as poverty, religious practices that permit early marriage, the search for protection, community myths and a sense of entitlement to respect, cultural laws that support early marriage, and inadequate legislative frameworks, adolescent marriage should not be condoned (UNICEF, 2019).

Adolescents make up a significant population in Africa, accounting for 23% of the total population (UNICEF, 2019). The greatest proportion of adolescents who have begun childbearing are found in Sub-Saharan Africa (UNICEF, 2017). Adolescents' reproductive health has long been a grey area due to ethical and religious practice issues in many areas of sub-Saharan Africa (Wado et al., 2019). Sully and Mumah (2019) revealed that there was low uptake of contraceptives in sub-Saharan Africa, yet the region recorded the most unplanned pregnancies among adolescent girls. usage of modern contraception methods lingers very low. Despite the various efforts by Kenya's National and County Governments and non-Governmental Organizations to promote abstinence among adolescents in Kenya, the impact of unsafe sex has continued to be felt in the country. It has been found that at 16 years, 14% of the adolescent girls in Kenyan slums already had experienced sexual intercourse (APHRC, 2016). While this truth remains, in Kenya, sex education is limited in our schools, also there is low or no modern contraception services directed to the adolescents which has resulted to high adolescents' pregnancies in Kenya (Ministry of Health [MoH], 2017).

In Kenya Adolescents face a higher danger of unplanned pregnancies than adults. However, adolescent pregnancy is one of the causes to maternal and child mortality leading to intergenerational series of poor health (WHO, 2018). Muhammad et al. (2019) found that adolescents face a high risk of Eclampsia, puerperal endometritis, and breast conditions due to physiological and psychological prematurity. Again, the adolescents are at high risk of maternal complications like obstructed labour, fistulas, low-birth-weight and premature births due to their physical and mental prematurity women (Maravilla et al., 2019). Besides death, adolescents who procure unsafe abortions are prone to post abortal complications like post-abortion sepsis, hypertension, hemorrhage, and infertility (ARH&D, 2015). Sex education is viewed as though it encourages the adolescents to engage in sexual activities by the Parents and educators. But studies have shown sex education does not seduce the adolescents into sexual activities (Engel et el., 2019). For example, in Kitui county, of adolescent girls who are active sexually, only 9.3% use contraceptives predisposing them to unintended pregnancies (Kenya Demographic and Health Survey [KDHS], 2022).

1.1 Problem Statement

Worldwide, adolescent births are estimated to be 14.3 million, with 2.5 million girls procuring unsafe abortions every year (WHO, 2018). Adolescents generally encounter barriers and discrimination while seeking reproductive health services, leading to low modern contraceptive utilization globally and predisposing them to unintended conception and the likelihood of

unsafe termination of pregnancies (Lichter et al., 2019). In Kenya, one-fifth of adolescents have never escaped pregnancy (Khan & Mishra, 2016). Therefore, reducing preventable maternal deaths remains a major challenge. To embrace and promote maternal well-being, efforts to increase adolescents' access to and utilization of contraceptives should be advocated. By the end of 15 years, the highest number of adolescents have already had their first sexual experience (KDHS, 2022). Although most of them would like to avoid pregnancy, they are not using any contraceptive method, predisposing them all to unplanned pregnancies and sexually transmitted infections. The Population Council (2021) revealed that the number of adolescent girls getting pregnant was higher in rural than in urban areas, 30% and 28% respectively. The proportion of adolescent girls reporting experiencing unintended pregnancy was also higher in remote areas than in towns, 30% and 28% respectively.

The contraceptive prevalence rate (CPR) for any contraceptive methods has remained very low at 23% among unmarried young girls aged 15-19 years in Kenya. The KDHS (2022) reports the current CPR in Kenya for both married and unmarried adolescents as 62%. In Kitui County, only 36.9% of adolescents aged 15-19 use contraceptives, which is lower than the national level (62%). Therefore, the gap for contraceptive use currently among married adolescents in Kitui is above the national level. Now, 34% of married young girls aged 15-19 are not planning to conceive but are not taking measures to prevent pregnancy, compared to 23% at the national level (KDHS, 2022). Consequently, it is logical that after the first pregnancy, an adolescent will start taking contraceptives to prevent future pregnancies; 37% to 64% of adolescent mothers will conceive again within 18-24 months after the first birth in Kitui County (Muhammad et al., 2019).

1.2 Research Objective

To assess the prevalence of modern contraceptives and the social demographic factors affecting the uptake of modern contraceptives among the adolescents attending PNC after first birth in Kitui County.

2.0 Literature Review

This section presents the literature review of the prevalence of contraceptive use among adolescents and sociodemographic factors affecting uptake of contraceptives among adolescents.

2.1 Prevalence of Contraceptive Use among Adolescents

Adolescent contraceptive use is one of the most important issues of the 21st century. Worldwide, over 16 million adolescent girls conceive children each year, and a significant number (5 million) of them terminate the pregnancy (WHO, 2019). Notably, half of these births take place in sub-Saharan Africa. Over 60% of adolescent girls (aged 15-19 years) in sub-Saharan Africa and Asia who wish to avoid pregnancy have an unmet need for family planning methods. Adolescent girls (aged 10-19 years) who do not use contraception or rely on traditional methods of family planning have the highest number (over 80%) of unplanned pregnancies. Thus, the need for highly customized adolescent (aged 10-19 years) reproductive health and reproductive health services has become increasingly urgent (Zhang et al., 2015). In Kenya, 13,000 adolescent girls drop out of school each year due to an unintended pregnancy. Additionally, adolescent unintended pregnancies lead to unsafe abortions, which can lead to serious conditions such as anemia, sepsis, and even death (Habib et al., 2019). Therefore, contraceptives have been prioritized as a good approach for achieving good health, promoting the well-being of individuals of all ages, and realizing gender equality and empowerment for all adolescent girls by 2030 (Coll et al., 2019). However, achieving the above SDG goals is unlikely with the current trends in the low uptake of contraceptives among adolescents in

Kenya. A large gap still exists in the utilization of contraceptives among adolescents, as seen from the statistics that approximately 16 million of them aged 15-19 years give birth annually, with unintended pregnancies forming a majority of the statistics (Coll et al., 2019). Consequently, this translates into the need for research on its associated factors at the local level to inform the strategies needed to improve contraceptive use among adolescents in the country.

2.2 Sociodemographic Factors Affecting Uptake of Contraceptives among Adolescents

This section consists of the age, level of education, parity and marital status.

2.2.1 Age

Age is one of the sociodemographic factors that influence the uptake of contraceptives among adolescents. It is a major variable in determining the uptake of contraceptive methods since reproductive matters begin from age 15 to 49 years. In addition, age is a criterion when determining a suitable contraceptive method (Nakirijja et al., 2018). The effect of age on the uptake of contraceptive methods has been established in research. For example, Nakirijja et al. (2018) reported a higher likelihood of older women utilizing contraceptive methods than adolescents. In addition, age also determines the sexual encounters of adolescents, as a majority of them engage in sexual intercourse between the ages of 15 and 19. As a result, there is an increased need to use different family planning methods among them (Nakirijja et al., 2018; Wirsiy & Yeika, 2019; Solanke, 2017). However, Apanga and Adam (2015) found contrasting evidence in their research, as there was no significant association between participants' age with the use of contraceptives. Therefore, this study sought to explore whether age determines adolescents' uptake of contraceptive methods after their first pregnancy.

2.2.2 Level of Education

Education among adolescents also determines the uptake of contraceptives. Education in women is highly correlated with the increased use of contraceptives, as they can make healthy choices during childbirth (Apanga & Adam, 2015). For example, Apanga and Adam (2015) showed that the use of contraceptives was higher in participants with primary (18.2%) and secondary education (18.2%) when compared to those without formal education (3.6%). Furthermore, their partner's education level positively predicts an adolescent using contraceptive methods (Apanga & Adam, 2015). However, the negative relationship between education and non-use of contraceptives has been documented in other studies, including Solanke (2017), Alemayehu et al. (2018), Obwoya et al. (2018), Ontiri et al. (2019), Nyewie (2019), and Blackstone et al. (2017). Further, the effect of education also extends to those with HIV/AIDS. Blackston et al. (2017) found that HIV-positive women and adolescents were least likely to bear children and use contraceptives to prevent pregnancy, as they did not want to infect their children. This was contrary to those with low education, as they had children irrespective of their HIV status. The uptake of contraceptives increases with one's level of education. Adolescents with tertiary education were highly likely to utilize contraceptive methods (30.2%) compared to those with primary or no education (Ontiri et al., 2019).

2.2.3 Parity

Parity also determines the uptake of contraceptives among adolescents. Adolescents with more children are highly likely to use contraceptives compared to those with less than one child (Alemayehu et al., 2018). The effect of parity is also seen in the studies by Apanga and Adam (2015) and Obwoya et al. (2018), which strongly predict the lifetime use of contraceptives.

2.2.4 Marital Status

Whether an adolescent is married or not also determines the uptake of contraceptives. The prevalence of contraceptive use is generally higher in married adolescents than in unmarried adolescents. This is attributed to the perception that contraceptives are used for child spacing purposes and limiting the number of children. The decreased use of contraceptives among unmarried adolescents is attributed to societal norms that do not allow contraceptive use and disapproval from parents, as it increases the risk of early sexual activity (Obwoya et al., 2018). The nature of the marital relationship also influences the uptake of contraceptives. Blackstone et al. (2017) found a positive association between marital gratification and contraceptive use. This relationship is attributed to the perception that having more children stabilizes marriages and prevents infidelity (Blackstone et al., 2017). However, Apanga and Adam (2019) found that marital status did not have any statistically significant effect on the use of contraceptives.

3.0 Methodology

This study was conducted in Kitui County using a cross-sectional descriptive survey design. The study targeted adolescent girls aged 10-19 years who had given birth in the last six months and attended postnatal care in Kyuso, Tseikuru, Mwingi, Nguni, and Nuu sub-county hospitals. A purposive sampling technique was used to select five sub-county hospitals for inclusion in the study population. The total number of young (adolescent) mothers served in these facilities is approximated to be 957 (DHIS, 2019). A sample size of 127 was used. Data were collected using structured questionnaires. The quantitative data were analyzed using descriptive and inferential statistics.

4.0 Results and Discussion

4.1 Usage of Modern Contraception

The usage of modern contraception among female adolescents considered in this study was 35.2% (Table 1).

Table 1:Usage of Modern Contraception

Category	Frequency (*n*)	Percentage (%)
Non-usage	81	64.8
Usage	44	35.2

Note. $n = 125$

4.2 Sociodemographic Factors and Usage of Modern Contraceptives

In a descriptive analysis (Table 2), the usage of modern contraceptives was high among the respondents aged 19 years (57.4%) and those with college education qualifications (50.0%). Additionally, the usage of modern contraceptives was more pronounced among the respondents who did not belong to any religion (42.9%), married (71.9%), and not schooling at the time of this study (47.4%).

Stratford Peer Reviewed Journals and Book Publishing
Journal of Medicine, Nursing & Public Health
Volume 6||Issue 2||Page 80-89||October||2023|
Email: info@stratfordjournals.org ISSN: 2706-6606

Table 2: Sociodemographic characteristics and modern contraceptives usage

	Usage of Modern Contraceptives	
Variable	**Non-Usage [*n*(%)]**	**Usage [*n*(%)]**
Age		
17	30 (83.3)	6 (16.7)
18	31 (73.8)	11 (26.2)
19	20 (42.6)	27 (57.4)
Education Level		
Primary School	47 (69.1)	21 (30.9)
Secondary School	31 (60.8)	20 (39.2)
College	3 (50.0)	3 (50.0)
Religion		
Non-practising	4 (57.1)	3 (42.9)
Christian	77 (65.3)	41 (34.7)
Marital Status		
Single	72 (77.4)	21 (22.6)
Married	9 (28.1)	23 (71.9)
Schooling Status		
Not-schooling	30 (52.6)	27 (47.4)
Schooling	51 (75.0)	17 (25.0)

4.3 Sociodemographic Predictors and Usage of Modern Contraceptives

The results of the multivariable logistic regression analysis of the association between the sociodemographic characteristics and usage of modern contraceptives are presented in Table 3. As indicated, female adolescents aged 19 years were 2.81 times more likely to use modern contraceptives as compared to those aged 17 years (AOR=2.81; p=.000). However, female adolescents aged 18 years were 1.45 times more likely to use modern contraception (AOR=1.45) compared to those aged 17 years; however, this variation was not statistically significant (p=0.571).

Stratford Peer Reviewed Journals and Book Publishing
Journal of Medicine, Nursing & Public Health
Volume 6||Issue 2||Page 80-89||October||2023|
Email: info@stratfordjournals.org ISSN: 2706-6606

Table 3: Sociodemographic Predictors of Usage of Modern Contraceptives

Variable	COR	[95%CL]	p-value	AOR	[95%CL]	p-value
Age						
17 years (*Ref*)	-	-	-	-	-	-
18 years	1.77$^{N.s}$	0.58-5.41	.313	1.45 $^{N.s}$	0.40-5.24	.571
19 years	3.75***	2.36-9.29	.000	2.81***	0.80-9.89	.000
Education Level						
Primary School (*Ref*)	-	-	-	-	-	-
Secondary School	2.44*	0.67-3.09	.021	2.74*	0.77-6.05	.026
College	3.24***	0.62-8.02	.000	3.55***	0.84-8.44	.000
Religion						
Non-religion	1.41*	0.85-3.33	.020	1.55*	0.90-7.90	.017
Christian	-	-	-	-	-	-
Marital Status						
Single (*Ref*)	-	-	-	-	-	-
Married	8.76***	3.52-1.79	.000	6.20**	1.79-1.53	.004
Schooling Status						
Not-schooling (*Ref*)	-	-	-	-	-	-
Schooling	1.37*	1.17-3.79	.011	1.90***	1.05-4.32	.000

In addition, female adolescents with a college education were 3.55 times more likely to use modern contraception (AOR=3.55; p=.000) than those with primary school qualifications. Likewise, compared to female adolescents with primary school education, those with secondary school education were 2.74 times more likely to use modern contraception (AOR=2.74; p=.026); however, their likelihood to take up contraception methods was slightly lower in comparison with those with college education qualifications. Further, non-religion female adolescents were 1.55 times more likely to take up the contraception methods (AOR=1.55; p=.017) than Christians. Similarly, in comparison with female adolescents who were single, the married female adolescents were 6.20 times more likely to use modern contraception (AOR=6.20; p=.004), while schooling female adolescents were 1.90 times more likely to take up modern contraception (AOR=1.90; p=.000) compared to those who were non-schoolers.

4.4 Discussion

4.4.1 Usage of Modern Contraceptives

The overall uptake of modern contraceptives among the female adolescents in this study was 35.2%. This low uptake suggests that modern contraceptives for fertility prevention are still a

problem among female adolescents in this study. The study observation agrees with Yaya et al. (2018), who revealed low usage of modern contraceptive in several sub-Saharan African countries.

4.4.2 Sociodemographic Predictors of Modern Contraceptive Use

Consistent with Nakirijja et al. (2018) finding that age is one of the sociodemographic factors that influence the uptake of contraceptives among adolescents and is a criterion when determining a suitable contraceptive method, this study found that female adolescents aged 19 years were more likely to use modern contraceptives compared to those aged 17 years. However, previous research by Apanga and Adam (2015) has revealed that age factor was not always related to the uptake of modern methods of contraception. Additionally, female adolescents with college and secondary school qualifications were more likely to use modern contraceptives than those with primary educational qualifications. This finding resonates with Apanga and Adam (2015), who found that women's education is significantly associated with the increased use of modern contraceptives. The higher modern contraceptive use might be because female adolescents with college and secondary school educational qualifications might be more informed about the effective use of modern contraceptives in controlling pregnancy. Another plausible reason might be that female adolescents with college and secondary school educational qualifications might not want to have another child to interrupt their educational activities. They might be in a position to make informed choices regarding their needs of reproductive health better than those with lower educational qualifications. Nevertheless, insignificant associations between the level of education and uptake of modern contraceptives have been found in Northwest Ethiopia among married women (Alemayehu et al., 2018), sub-Saharan Africa (Blackstone et al., 2017), and in Kenya among women with an unmet need for modern contraception (Ontiri et al., 2019).

Moreover, in unity with Tamang et al. (2017) finding that religion influences the uptake of contraceptives among adolescents, this study found that female adolescents not affiliated with any religion were more likely to use modern contraceptives than those who were Christians. This finding might be because religious beliefs shape people’s knowledge and behavior regarding reproductive health. Religious resistance to modern contraceptive use may be more pronounced among Christians than among non-religious affiliated female adolescents. Similarly, previous research has indicated that religion reduces the uptake of modern contraceptives among adolescent girls. For example, previous research in Ethiopia by Tigabu et al. (2018) found that contraceptives were not utilized despite being available at the healthcare facilities and attributed the low utilization to religion. In addition, this study reported higher chances of modern contraceptive use among married female adolescents than those with single marital status. A plausible reason for this finding could be that married female adolescents might not want to have another child, given the challenges associated with caring for a baby. Moreover, schooling female adolescents might not want to have another child interrupting their educational activities. Adebowale et al. (2013) found similar results in Nigeria among women with no fertility intention.

5.0 Conclusion

This study concludes that there is low usage of modern contraceptives among female adolescents with one baby and visiting postnatal clinics within the first six months after birth. In addition, the higher the age of female adolescents, the more likely they are to use modern contraceptives. Moreover, the higher the educational qualifications, the more likely female adolescents will utilize modern contraceptives. Besides, Christian and single-marital-status female adolescents are less likely to use modern contraceptives.

6.0 Recommendations

Increasing uptake of modern contraception methods among female girls aged (10-19) years in Kitui County is a multi-faceted problem that will require concerted efforts by all key stakeholders to provide wide interventions. Such stakeholders include the community, parents, guardians, peers, school teachers and tutors, religious leaders, healthcare practitioners, and policymakers. In addition, the interventions should aim to inform female adolescents through appropriate information while counteracting negative perceptions, beliefs, and myths. From the study, the married and the higher the educational level were more likely to use contraceptive method which gives good entry for any implementational project in an area with low modern contraceptive uptake. Targeting the population who are likely to use the modern contraceptive methods would boost the uptake and as well will become role models to those who were less likely to use. The single and the primary school level female adolescents who were less likely to use the contraceptive methods, using their peers as role models, group counselling and organizing seminars to provide the correct information about modern contraceptive use among the adolescents would improve the uptake. Moreover, adolescent girls shy off seeking reproductive health services together with older population, age of their parents, adjusting the health facility working hours to attend to them over the weekends and later hours of the day like from five to six in the evening would yield better results.

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