

Understanding Multifaceted Determinants of Contraceptive Utilization among Adolescent Females: Insights from Wakiso District, Uganda

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ABSTRACT

Despite global efforts to enhance contraceptive utilization, adolescent females in Uganda face persistent challenges accessing and utilizing modern contraceptive methods, resulting in high fertility rates and maternal mortality. This cross-sectional study investigated the intricate factors influencing contraceptive usage among adolescent females attending Kasangati Health Center IV in Wakiso District, Uganda. Employing questionnaire-based surveys, the study targeted adolescent females attending the health center, utilizing simple random sampling to select 220 participants, as determined by Fisher's formula. Data analysis was conducted using Microsoft Excel and SPSS version 20, presenting comprehensive findings through tables, pie-charts, bar graphs, and narratives. The study uncovered a concerning contraceptive prevalence rate (CPR) of 19% among adolescent females, despite existing awareness of family planning methods. Key determinants of contraceptive usage included limited knowledge about contraception, constrained access to services, entrenched societal norms, and gender dynamics. The findings highlight the urgent need to address these multifaceted barriers to enhance contraceptive utilization and mitigate unmet needs among adolescent females. The study's recommendations encompass targeted educational campaigns, improved accessibility of family planning services, and fostering the engagement of both genders in reproductive health decision-making processes. Ethical considerations were meticulously observed, with informed consent obtained from participants and ethical approval secured from relevant authorities. This study contributes seminal insights into the complex landscape of contraceptive utilization among adolescent females in Uganda, offering critical guidance for policy formulation and programmatic interventions aimed at improving reproductive health outcomes and curtailing maternal mortality rates.

Keywords: Contraceptive utilization, Adolescent females, Reproductive health, Family planning, Wakiso District and Uganda

INTRODUCTION

Globally, modern contraceptive utilization has increased in the recent past – from 54% in 2000 to 57% in 2015, [1, 2]. However, the estimates in Africa remain persistently low at 23% and 24%, respectively [2]. The estimates among countries in the Sub-Saharan region are much lower than the aforementioned figures, [3]. This has been attributed - among other factors - to shortfalls in health infrastructure and transport facilities, ([1]. It would not be unexpected given the estimated 140 million teenage adolescents in underdeveloped countries in sub-Saharan Africa who want to avoid becoming pregnant but do not have access to contemporary contraceptive techniques [4]. This situation normally results in high fertility which in turn is associated with high levels of

maternal mortality especially among the poorest women, [1, 5]. Romania and Bulgaria have some of the lowest teenage contraceptive use rates in Europe with a rate of 6.3 and 9.7 teenage births per 1,000 women respectively [6]. Uganda has a high total fertility rate (TFR), at 6.2 children per woman [1, 7]. With a young population (52% are below age 15, and 17% are age 15–24) and this large cohort of young people enters the childbearing years, their reproductive behavior will determine the growth and size of Uganda's population for decades to come, [8]. Uganda still struggles with a low contraceptive prevalence rate (CPR) of 19% among its adolescent teenagers, which is lower than that of her neighbors, Kenya, Rwanda, and Tanzania, which had a CPR of 26%,

22%, and 24%, respectively, at the time of their last surveys [1]. The preference for contraception use varied from adolescents to adults in the Wakiso district, according to a cross-sectional study conducted in 2018 by Richard K. et al. Only 42% of teenage adolescents knew about the various forms of contraception but were unsure of when to begin using them after giving birth. Additionally, only 7% of them used family planning within the first six months after giving birth [1, 9].

Use of family planning services is seen as entirely female's duty in much of the world, although it is a dual commitment. Men are mostly forgotten by health clients, particularly in case of family planning services [1, 10]. Globally according to WHO Report [11], annually, over 9 million teenage adolescents give birth as results of unmet needs of their reproductive plans and this is a worrisome concern for the policy makers, demographers, health specialists, social scientists as well as the public. In Africa an estimated 5 million adolescents aged below 19 years who would prefer to delay or avoid pregnancy but continue to lack access to safe and effective contraception, [1]. Thus along with providing skilled maternal care, offering family planning is crucial to averting maternal deaths. Satisfying the unmet need for family planning alone could cut the number of maternal deaths by almost a third, [1, 12-14].

Although many United Nations member countries, particularly those in the developed world, have strong family planning programs, this is not the case in East Africa, where despite a rise in contraceptive prevalence, many teenage

adolescents continue to have unmet need for contraception, [1, 15]. In Uganda, the role of females in family planning has been receiving greater attention recently as population planners have begun to recognize the importance of women's influence over reproductive decisions whereby getting women involved in the family planning program will lead to increasing the use of contraceptives methods, since population growth is becoming a universal problem, [1, 16]. The methods most commonly ever used by married women are injectable (27 percent), male condoms (16 percent), pills (14 percent), and rhythm (13 percent), ([1]. This shows that although teenage adolescents have heard about family planning, majority are not actually using it, so there's a need to identify factors associated with contraception usage in order to bridge this communication gap.

Uganda rates as one of the countries with the highest total fertility rates in the world (TFR = 6.2) and the median age at first sexual intercourse is 16.8 years, an age which is considered to be vulnerable to sexual and reproductive health challenges, ([1, 17]. Other interesting statistics reveal that the median age at first marriage for females is 17.9 years while the female median age at first birth in Uganda is 19.1 years for adolescents aged 20-24 with a 6.2 average children per woman [1]. Therefore the study findings also are to provide insights on women's sexuality and therefore informative to the design of dual protection programs for HIV prevention among women as well as improving mothers' reproductive health.

METHODOLOGY

Study design

A cross sectional study was carried out to collect data from adolescents attending Kasangati health center IV-Wakiso district

Study area

The study was conducted attending Kasangati health center IV located in Nangabo sub-county, Wakiso district in central Uganda. Kasangati is located 13 kilometers northeast of Kampala, Uganda's capital city along Kampala-Gayaza road. Kasangati health center IV was set up in 1959 initially to take off pressure from Mulago national referral hospital to provide basic medical care for local population and is located in Kyadondo, Wakiso district, central Uganda at 0o26'5"N and 32o36'3"E, in 2020 UBOS estimated midyear population of the town to be 207,800 people. The population agency calculated that the population growth of Kasangati town is at 6.7% between 2015 and 2020. The health is publicly funded and offers its services for free, these include maternal and child health services, immunization, dental,

ophthalmic, in-patients and laboratory services, management of non-communicable diseases such as diabetes, hypertension and psychiatric diseases, it also offers surgical and emergency obstetric services. There are 30 in-patient beds in total and total the daily outpatient attendance is between 150-200 patients and those who attend family planning services daily are about 15-20 patients with more services given by MARIE STOPES UGANDA an organization specialized in family planning services. The daily antenatal care attendance is around 120 patients and there are 200-250 deliveries per month. The health center is staffed with 2 doctors a gynecologist and an orthopedic surgeon and others are clinical officers and nurses.

Study population

The study population comprised of adolescents with attending Kasangati health center IV-Wakiso district

Inclusion criteria

Adolescents who consented participated in the study were recruited. For adolescents below 13 years, their consent was obtained through their care givers or their parents.

Exclusion criteria

Adolescents who were sick or were in need urgent medical care were excluded.

Sample size determination

Sample size was determined by using fisher formula [18]:

$$s = \frac{Z^2 PQ}{d^2}$$

Where:

S= Sample size

Z= standard Deviation at required degree of accuracy which at 90% which gives 1.96

P= proportion of population with desired characteristics.

Q= 1-P

d = degree of error you are able to accept.

$$s = \frac{1.96^2 * 0.5(1 - 0.5)}{0.09^2}$$

S = 220

Sampling technique

This study population employed the simple random sampling technique in which all teenage

adolescents who come to the hospital was given an opportunity to participate in the study

Data collection method

The data was collected using questionnaire with close ended questions the data was collected by the principle investigator herself and three trained research assistants and the respondents provided the needed information.

Data analysis

Then collected data was then analyzed using computer programs such as Microsoft excels and SPSS version 20 Data analysis was made in line with the study objectives so as to achieve the purpose of the study and was presented inform of tables, pie-charts, bar-graph, and narratives depending on the data that was analysed

Data quality control

Pre-test of the questioner for relevance was done.

To ensure quality control, the researcher prior to the exercise conducted a two days training for three research assistants

Ethical considerations

An introductory letter was obtained from university administration which was presented to the medical superintendent of Kasangati health center IV so as to allow me collect data. Before collecting data, an informed consent form was sought from the participants who gave their consent after full complete and truthful information is given.

RESULTS

Prevalence of contraception among adolescents

The table 1 above shows the prevalence of contraceptives among adolescents, in which 180

Table 1: Showing the prevalence of contraception among adolescents

Contraception use	Frequency	Percentage	Cumulative frequency
Using contraception	180	81.8	180
Not using contraception	40	18.2	220

Demographic characteristics of contraception used

Table 2 above shows the association between social demographic characteristics and contraceptive use among adolescents, in which the majority (104, or 57.8%) of the adolescents who had used contraceptive methods were aged between 22 and 24 years, while at least 24 (60%) of those who had not used a contraceptive method were aged between 13 and 21. the study shows that age between 22 and 24 was significantly

(81.8%) had ever used a type of contraception method, while at least 40 (18.2%) had never used any given contraception method.

associated with contraceptive use at an odds ratio of 0.36 (0.12-3.86) and a p-value of 0.036.

The study also showed that the majority, 96 (51.1%) of the adolescents who had used contraceptive methods, had a post-primary level of education, while 32 (80%) of those who had not used contraceptives had a primary level of education. The study shows that a post-primary level of education was significantly associated with contraceptive use among adolescents at an odds ratio of 0.62 (0.44-7.12).

Table 2: Showing demographic characteristics of contraception use

Demographic factor	Contraception use		No contraception use		Odds ratio	p- value
	Freq.	Percent	Freq.	Percent	95% CI	< 0.05 sg
Age						
13-21	76	42.2	24	60	Ref	
22-24	104	57.8	16	40	0.36(0.12-3.86)	0.036
Education level						
Primary	88	48.9	32	80	Ref	
Secondary	92	51.1	08	20	0.62(0.44-7.12)	0.002

Sg: significance less than 0.05; CI confidence interval at 95%

DISCUSSION

These results present findings from a study examining the prevalence of contraceptive use among adolescents and its association with various socio-demographic factors: Table 1 indicates that the majority (81.8%) of adolescents had used some form of contraception, while a significant portion (18.2%) had never used any contraceptive method. Table 2 highlights associations between contraceptive use and socio-demographic factors such as age and education level.

Among adolescents who had used contraceptive methods, a majority (57.8%) fell within the age range of 22-24 years, whereas a significant proportion (60%) of those who had not used contraceptives were aged between 13 and 21 years. The study found a statistically significant association between the age group of 22-24 years and contraceptive use, with an odds ratio of 0.36 and a p-value of 0.036. An odds ratio less than 1 suggests a decreased likelihood of contraceptive use in this age group compared to the reference group[19]. Regarding education level, the majority (51.1%) of contraceptive users had a post-primary education level, while a larger proportion (80%) of non-users had only primary education. The study also found a significant association between post-primary education level and

contraceptive use among adolescents, with an odds ratio of 0.62. The findings suggest that older adolescents (age 22-24) are more likely to use contraceptives compared to younger ones (age 13-21). Similarly, adolescents with higher education levels (post-primary) are more inclined to use contraceptives compared to those with lower education levels (primary)[20, 21]. However, it's worth noting that while significant associations were found between age and education level with contraceptive use, the odds ratios are quite low (0.36 and 0.62, respectively), indicating relatively modest effects. The study's results imply that efforts to promote contraceptive use among adolescents might benefit from targeting younger age groups and those with lower levels of education.

Further research could emphasize other factors influencing contraceptive use among adolescents, such as access to healthcare services, socio-economic status, cultural beliefs, and peer influence[9, 22]. In sum, the study provides valuable insights into the prevalence of contraceptive use among adolescents and its association with age and education level, suggesting potential avenues for intervention and further research in adolescent reproductive health.

CONCLUSION

The research looked at the relationship between teenage contraceptive usage and sociodemographic characteristics. 18.2% of teenagers had not used contraception, compared to 81.8% who had. The usage of contraceptives was significantly correlated with age and educational attainment. Adolescents who were older (ages 22 to 24) and had completed post-primary school had greater rates of contraceptive usage. Odds ratios for the effects were 0.36 and 0.62, respectively, indicating some modesty. Promoting the use of

contraceptives may be helped by focusing on younger age groups and those with lower educational attainment levels. Additional aspects such as peer influence, socioeconomic position, cultural attitudes, and healthcare accessibility should be investigated in future studies. All things considered, the study sheds light on the usage of contraceptives by adolescents and recommends topics for further research and intervention in the field of adolescent reproductive health.

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