MAKERERE UNIVERSITY

FACTORS ASSOCIATED WITH MODERN CONTRACEPTIVE USE AMONG WOMEN AGED 15-49 YEARS IN KIGEZI SUB-REGION.

BY

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DECLARATION

I NOWEMBABAZI MIRACLE hereby declare to the best of my knowledge that this work is original and it has never been submitted for any other degree award to this or any other university before.

Signed ..... Date 08.07.2026

MIRACLE NOWEMBABAZI

APPROVAL

I certify that student NOWEMBABAZI MIRACLE (REG NO. 23/U/16080/PS) has been under my supervision, and this dissertation has been submitted as an original copy for the final examination with my approval as her supervisor for the award of a degree of Bachelor of Science in population studies.

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DEDICATION

I dedicate my research work to my family, my friends and entire department of population studies. I dedicate my work and I give a special thanks to Dr Fred Maniragaba for all the words of encouragement and for being there for me throughout the entire degree program in the best ways possible. May the almighty God bless you all.

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ABBREVIATIONS AND ACRONYMS

AOR	Adjusted Odds Ratio
CI	Confidence Interval
DHS	Demographic and Health Survey
FP	Family Planning
GLM	Generalized Linear Model
HAART	Highly Active Antiretroviral Therapy
HIV	Human Immunodeficiency Virus
IUD	Intrauterine Device
LARC	Long-Acting Reversible Contraceptive
LMIC	Low and Middle Income Countries
MCPR	Modern Contraceptive Prevalence Rate
MOH	Ministry of Health, Uganda
OR	Odds Ratio
PLWHA	Persons Living with HIV and AIDS
PR	Prevalence Ratio
RISE	Reducing High Fertility Rates and Improving Sexual Reproductive Health Outcomes
SDG	Sustainable Development Goal
SES	Socioeconomic Status
SPSS	Statistical Package for Social Sciences
STATA	Statistical Software for Data Analysis
TPB	Theory of Planned Behaviour

UBOS	Uganda Bureau of Statistics
UDHS	Uganda Demographic and Health Survey
UNFPA	United Nations Population Fund
USAID	United States Agency for International Development
VHT	Village Health Team
VIF	Variance Inflation Factor
WHO	World Health Organization

ABSTRACT

Background: Modern contraceptive use is a key intervention for reducing unintended pregnancies and improving maternal and child health outcomes. Although Uganda has implemented several family planning initiatives, utilization of modern contraceptives remains suboptimal in some regions, including Kigezi. This study examined factors associated with modern contraceptive use among women in Kigezi aged 15–49 years.

Methodology: The study adopted a cross-sectional design using secondary data for women of reproductive age in the Kigezi region. Descriptive statistics summarized respondents' characteristics. Binary logistic regression model was used to establish the determinants of contraceptive use among women in Kigezi sub-region. Results from the above model were interpreted using odds ratios.

Results: The findings of the study show that age was associated with contraceptive use. Women aged 20–24 years (OR = 2.41; $p < 0.001$) and 25–29 years (OR = 3.12; $p < 0.001$) were more likely to use modern contraceptives compared to adolescents aged 15–19 years. Women with secondary or higher education had higher odds of use than those with no education (OR = 2.68; $p = 0.002$). Married women were more likely to use modern contraceptives than unmarried women (OR = 1.89; $p = 0.014$). Women with three or more living children had increased odds of contraceptive use (OR = 2.97; $p < 0.001$). Exposure to family planning information through mass media was positively associated with use contraceptive use (OR = 1.76; $p = 0.021$).

Conclusion: The study concludes that modern contraceptive use among women in Kigezi is largely influenced by socio-demographic characteristics, fertility-related factors, access to information, and availability of health services. Based on these findings, the study recommends strengthening female education, intensifying mass media dissemination of family planning information, improving geographical access to health facilities, and implementing youth-friendly reproductive health services to enhance modern contraceptive uptake in the Kigezi region.

CHAPTER ONE: INTRODUCTION

1.1 Background

According to the World Health Organization (WHO), modern contraceptives are scientifically proven methods that effectively prevent pregnancy, including hormonal methods like pills and injectables, barrier methods like condoms, and permanent methods such as sterilization (Sserwanja et al., 2021). Modern contraceptive use represents one of the most significant public health interventions of the twentieth century, fundamentally transforming women's reproductive autonomy and contributing substantially to demographic transitions across the globe (Namasivayam et al., 2020).

The significance of modern contraceptive use extends far beyond individual reproductive choices, encompassing broad implications for maternal and child health outcomes, economic development, and gender equality. Research consistently demonstrates that access to and utilization of modern contraceptives significantly reduces maternal mortality rates by preventing unintended pregnancies and unsafe abortions (F. E. Makumbi et al., 2023). Inequities in family planning are highlighted by differences in reproductive health outcomes and the distribution of resources among different population groups, necessitating advocacy for equity in health service utilization to increase universal health coverage (F. E. Makumbi et al., 2023).

In Uganda, where the maternal mortality ratio stands at 336 deaths per 100,000 live births, contraceptive access represents a critical intervention for saving lives (UBOS & ICF, 2018). Historical trends indicate progress, with modern contraceptive use in Uganda rising from 11.6% in 1995 to 32.1% in 2011; however, this pace remains slow relative to population growth (Andi et al., 2014).

Despite the proven benefits of modern contraceptives and substantial global investments, significant disparities persist in contraceptive access across different regions. The global contraceptive prevalence rate for modern methods among married women reached approximately 57% in 2019, yet this figure masks considerable variation, with sub-Saharan Africa demonstrating particularly low rates of modern contraceptive adoption (Namasivayam et al., 2020).

In SSA, negative factors prohibiting contraceptive use often include women's misconceptions of contraceptive side effects, male partner disapproval, and social or cultural norms surrounding

fertility, while positive factors include education and employment (Blackstone et al., 2017). Recent evaluations of family planning programs, such as the RISE project (2019–2023), indicate that while there may be a decrease in socio-economic and education-related inequities, there is often no significant change in the overall modern contraceptive prevalence rate, suggesting that low contraceptive use remains a persistent issue requiring more targeted programs (F. Makumbi et al., 2025).

Uganda, like many countries in sub-Saharan Africa, faces significant challenges in achieving universal access to modern contraceptives. The country has experienced rapid population growth, increasing from approximately 24 million in 2002 to over 34 million in 2014, representing one of the highest population growth rates globally at approximately 3.03% annually (Kasumba, 2025). This demographic pattern is characterized by high fertility rates, with the total fertility rate remaining elevated at 5.4 children per woman, significantly above the replacement level of 2.1 children per woman.

Despite improvements in reproductive health outcomes between 2011 and 2016, Uganda's total fertility rate remains one of the highest in the world, and the use of modern contraception at 35% is lower than the country's target of 50% (F. E. Makumbi et al., 2023). The persistence of high fertility rates occurs alongside documented unmet need for family planning, with approximately 28% of married women expressing a desire to space or limit childbearing but not currently using any contraceptive method (F. E. Makumbi et al., 2023).

Within Uganda, the Kigezi sub-region, predominantly inhabited by the Bakiga and Bafumbira ethnic groups and they have a distinct cultural heritage characterized by patrilineal kinship systems, strong clan affiliations, and traditional values that emphasize large family sizes (Sunday, 2012). Cultural norms in this region often dictate that a woman should not start practicing contraception before she has had 6-8 live children, including at least two sons, to ensure clan preservation and old-age security (Sunday, 2012).

Recent evidence indicates that maternal health outcomes in the Kigezi region are significantly worse than national averages. In Rubanda District, the maternal mortality ratio registers approximately 500 deaths per 100,000 live births, compared to the national average of 189 deaths per 100,000 live births (Kibonire et al., 2025). This alarming disparity is driven primarily by high

rates of unintended pregnancies and inadequate emergency obstetric care in the region's remote, mountainous terrain.

A critical factor contributing to poor maternal health outcomes in Kigezi is the persistently low uptake of modern contraceptives, particularly Long-Acting Reversible Contraceptives (LARCs). In Rubanda District, LARC adoption stands at a mere 14%, far below the national target of 21.4% (Kibonire et al., 2025). This low uptake occurs despite the availability of family planning services through public health facilities and community-based organizations. Studies on social accountability interventions in similar contexts suggest that community and provider-driven efforts do not always result in a statistically significant increase in contraceptive uptake, highlighting the need to address deeper behavioral and contextual factors beyond service availability (Steyn et al., 2022).

Contraceptive decision-making among the women in Kigezi sub region is influenced by a broad spectrum of factors. The culture, traditionally patriarchal, often links masculinity to high fertility, leading women to resort to covert contraceptive use due to spousal opposition and financial neglect (Kibonire et al., 2025). This aligns with broader regional findings where male partner disapproval is a primary barrier to modern contraceptive use (Blackstone et al., 2017).

Furthermore, the presence of HIV in districts like Kabale adds complexity to contraceptive decision-making. The choice of contraception among persons living with HIV is constrained by the need to prevent both sexual transmission of HIV and unwanted pregnancies (Kakaire et al., 2010). In Kabale, among 400 HIV-positive persons, only 55.1% were currently using a family planning method (Kakaire et al., 2010). Health system factors such as distance to facilities and media exposure also contribute to usage patterns. (Kasumba, 2025) examined factors associated with modern contraceptive use, finding that education, wealth, age, partner support, and healthcare access were significant predictors. This study examined the determinants of modern contraceptive use among the women in reproductive age in Kigezi sub-region.

1.2 Problem Statement

Despite effort to increase awareness and access to family planning services. Contraceptive use in Kigezi region remains below regional and national averages. this has led to increased teenage pregnancies, maternal death and child mortality, unsafe abortions, birth injuries and all other complications that are associated with pregnancy.

While previous studies on contraceptive use have provided valuable insights onto general barriers such as limited access, cultural beliefs and lack of education Towongo & Kelepile, 2024) they have often failed adequately to explore the intersection of the individual behavior ,partner dynamics, and community influence in shaping contraceptive behaviors particularly in under deserved and rural settings Therefore, to bridge the existing knowledge gap for appropriate policy intervention, the purpose of this study was to examine the determinants of contraceptive use among women in the reproductive age in Kigezi region .

munity access to health facilities was

1.3 Objectives of the study

The main objective of the study was examining the determinants of modern contraceptive use among women aged 15-49 years. Specifically, the study was intended to:

1. To determine the prevalence of modern contraceptive use among women in the Kigezi region according to available survey data;

2. To assess the association between socio-economic factors and modern contraceptive use among women; and

3. To assess the influence of demographic factors and contraceptive use.

1.4 Study Hypothesis

1. There is a significant association between age and modern contraceptive use

2. Educated women are more likely to use modern contraceptives compared to women their uneducated counterparts.

3. Women with higher parity are more likely to use modern contraceptives compared to women with lower parity.

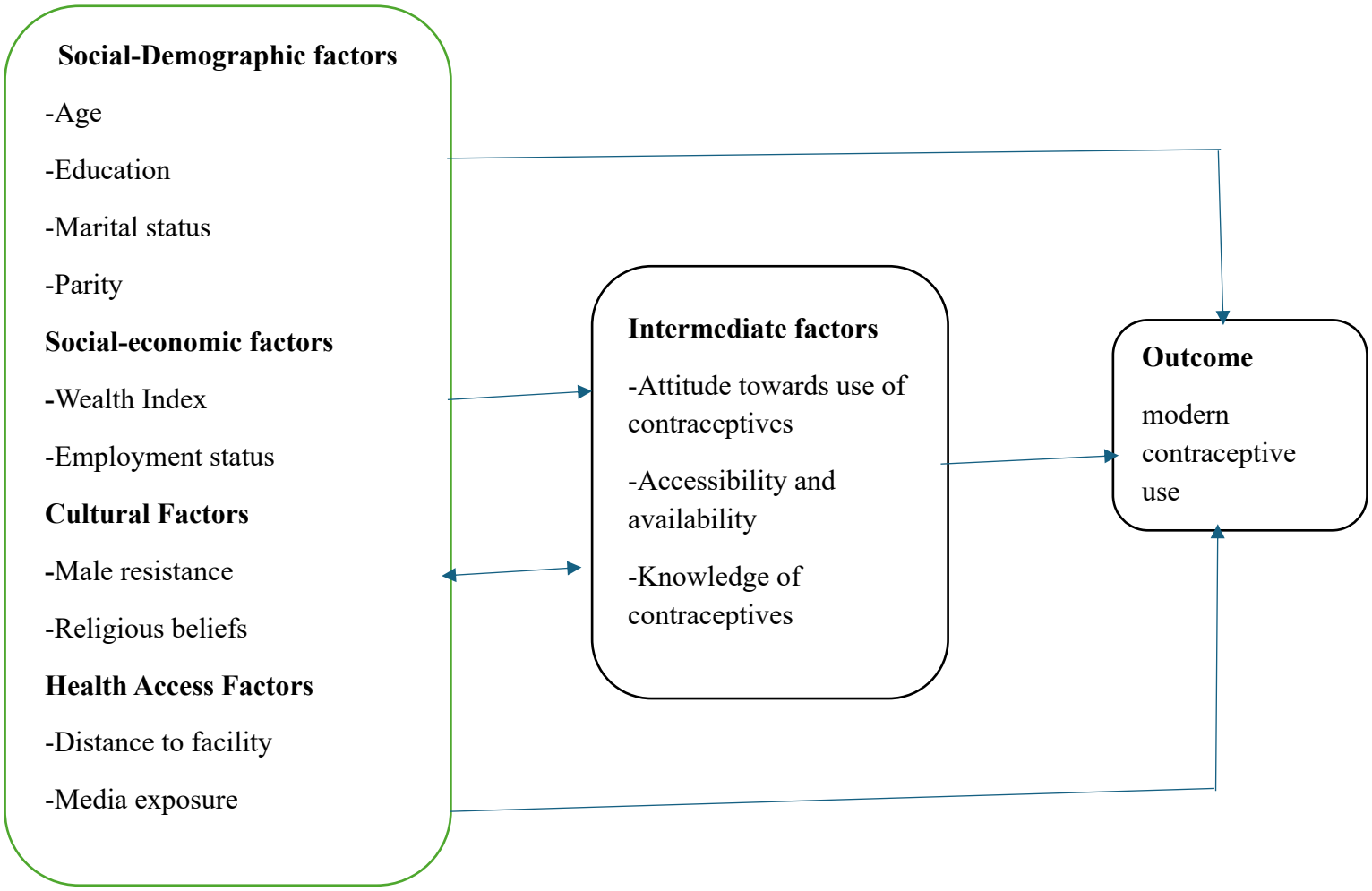
1.5 Theoretical Framework

This study is guided by the Theory of Planned Behavior (TPB) and Ecological Systems Theory to comprehensively understand factors influencing contraceptive behavior. According (Ajzen, 2020; Oppong, Logo, Agbedra, Adomah, Amenyaglo, Arhin-Wiredu, et al., 2021), TPB posits that behavioral intentions are determined by attitudes toward the behavior, subjective norms, and perceived behavioral control. Among the women in Kigezi, , attitudes encompass beliefs about contraceptive benefits and risks (Kasumba, 2025), subjective norms reflect social pressure from spouses and community leaders (Namasivayam et al., 2020), and perceived control refers to women's ability to access contraceptives amidst economic and cultural constraints (Kasumba, 2025).

Complementing this, the Ecological Systems Theory developed by Bronfenbrenner provides a framework for understanding how factors at multiple levels interact to shape individual behaviors (Kasumba, 2025). This theory emphasizes individual-level factors such as knowledge and age, interpersonal factors like partner support, community-level factors including social norms and service access, and societal-level factors such as national policies and economic conditions.

1.6 Conceptual Framework

The conceptual framework for this study integrates insights from the theoretical frameworks described above to provide a comprehensive model of the factors associated with modern contraceptive use among women of reproductive age.



1.7 Significance of the Study

This study will provide policymakers with evidence-based insights to refine family planning strategies, while offering program implementers practical guidance for designing culturally sensitive interventions that address both empowerment and economic barriers.

The research will contribute to the academic community by expanding literature on contraceptive determinants in sub-Saharan Africa and offering methodological insights on interaction effects. The findings of the study will improve access to and utilization of family planning services for women and communities through more effective policies and programs.

CHAPTER TWO: LITERATURE REVIEW

2.0 Introduction

This chapter provides a comprehensive review of the existing literature from different authors and scholars that have carried out the same research on determinants of contraceptive use worldwide.

2.1 Social Demographic Factors and contraceptive use

2.1.1 Age

Age is a significant determinant of modern contraceptive use. Research indicates that older women are more likely to use contraceptives compared to younger ones due to increased exposure to sexual and reproductive health information and greater autonomy in decision-making (Kasumba, 2025). Research found that prevalence of modern contraceptive use was higher (23.18%) among women aged 20-29 compared to adolescents aged 15-19 (4.2%) in Uganda.

The low contraceptive prevalence among women in teen years may be due to the fact that most of these women especially aged below 18 may be shying away to seek contraceptives even if they are married as they fall below legal age of marriage as well as not to be viewed as indulging in premarital sex if they are not married (Forty et al., 2021) . Younger adolescents (10-14 years) may lack comprehensive knowledge about contraception and may face higher barriers, including stigma and restricted access to contraceptive services (Dombola et al., 2021).

2.2 Socio Economic Factors and contraceptive use

2.2.1 Education Attainment

Education is a predictor of modern contraceptive use. For example, a study done by Kasumba (2025) found that women with primary education were more likely to use modern contraceptives. Similar secondary education increased the likelihood of contraceptive use (Tumwizere, K. Mbonye, et al., 2024). Furthermore, women with primary and secondary education were more likely to use of modern contraceptives in Uganda (Towongo & Kelepile, 2024). Women having secondary education were more likely to use contraceptives compared to women with higher education (Forty et al., 2021). Education enhances critical thinking, decision-making, and negotiation skills, enabling adolescents to make informed choices about their reproductive health

2.2.2 Wealth Index

Wealth status is associated with modern contraceptive use. In Uganda, women in the second quintile having higher odds of using modern contraceptives compared to the poorest quintile (Kasumba, 2025). Wealth status increases use of modern contraceptives from women of middle and rich wealth index brackets by 3.6% and 3.8% respectively in Uganda (Towongo & Kelepile, 2024). Women from poor households and middle income households were less likely to use contraceptives compared to women from rich households (Forty et al., 2021). There are disparities in the use of contraceptives among poor women and wealthy women in Uganda (Towongo & Kelepile, 2024). Adolescents from wealthier households are more likely to afford and access modern contraceptives due to better financial resources and improved healthcare accessibility (Dombola et al., 2021).

2.2.3 Parity

Parity influences contraceptive use. Women who have achieved their desired family size are more likely to use contraception for limiting births (Kasumba, 2025). Compared to those who have not yet achieved their desired family. Parity also influences a young woman's desire for spacing or limiting the number of children she has. Those who had already had a child may be more inclined to use contraceptives to delay or prevent additional pregnancies until they are ready (Dombola et al., 2021; Tumwizere, K. Mbonye, et al., 2024). Adolescents who had already experienced childbirth (15-19) were more aware of the challenges and responsibilities associated with pregnancy and parenting, which motivated them to use modern contraceptives to prevent unintended pregnancies (Dombola et al., 2021).

2.2.4 Marital status

Marital status is a predictor of contraceptive use. For example, research shows that married or cohabiting increases the chances of the use of modern contraceptives (Towongo & Kelepile, 2024). Married adolescents often have higher contraceptive use compared to their unmarried counterparts due to their need for family planning (Forty et al., 2021). However, some married adolescents face opposition from spouses or in-laws regarding contraceptive use, particularly in patriarchal societies where fertility is highly valued (Dombola et al., 2021; Tumwizere, Nsenga, et al., 2024). Unmarried adolescents, on the other hand, may have limited access to contraceptive services due

to stigma, fear of judgment, or restrictive policies that require parental consent (Dombola et al., 2021).

2.3 Religion and contraceptive use

Religious beliefs also play a role, with some faith communities opposing modern contraceptive methods or promoting specific interpretations of reproductive responsibilities (Dombola et al., 2021). Some elders recommending that a woman should not start practicing contraception before she gets 6-8 live children (Kibonire et al., 2025). Parents perceive issues of sexuality and label contraceptives as bad things, with some participants reporting that parents are afraid of discussing such issues with their children because of cultural/religious beliefs.

2.4 Reproductive health factors and contraceptive use

2.4.1 Accessibility and Availability of Contraceptives

Distance to facilities influences contraceptive use among women. Distance to health facilities, inadequate skilled health personnel, fear of side effects, lack of male involvement, cultural beliefs, and limited awareness (Kabagenyi et al., 2016; Kasumba, 2025; Lipsky et al., 2016; Towongo & Kelepile, 2024). Community access to health facilities was found to have negative influence on the use of modern contraceptives among women in Uganda (Nalwadda, 2022; Towongo & Kelepile, 2024). Factors contributing to low uptake include limited access to modern contraceptives,

2.4.2 Knowledge and Attitude Towards Contraceptives

Research indicates that men in the Kigezi region rarely participate in family planning sensitization programs. Many men do not attend church, where some awareness efforts are held, and therefore have limited exposure to health education (Kibonire et al., 2025).

2.5 Research gap

From the literature, socio-demographic factors such as educational attainment, age, marital status, and place of residence are strongly associated with contraceptive use (Kasumba, 2025; F. E. Makumbi et al., 2023; Namasivayam et al., 2020; Towongo & Kelepile, 2024). However, a critical gap remains on factors that influence contraceptive use among the women in Kigezi sub-region, because the reviewed literature from the previous studies done on in the area of family planning does not address what the current study seeks to address. Therefore, the purpose of this study

sought to address this gap by examining the factors associated with contraceptive use among women in reproductive age in Kigezi sub-region.

CHAPTER THREE; METHODOLOGY

3.0 Introduction

This chapter presents the study design, data source, study, sample size, study variables, data analysis and ethical consideration for the factors associated with modern contraceptive use.

3.1 Study design

The study adopted a quantitative, cross-sectional research design using secondary data. This design was appropriate for examining associations between socio-demographic, socio-economic, and reproductive health factors and modern contraceptive use at a single point in time.

3.2 Data Source

The data used in this study was obtained from Uganda Demographic and Health Survey (UDHS) conducted in 2016. The UDHS is a nationally representative survey that collects data on a wide range of health indicators, including contraceptive use, fertility, maternal and child health, and socio-demographic characteristics. The dataset was obtained from the DHS Program's website (https://dhsprogram.com/), where it is freely available for download. This means I used secondary data only.

3.3 Study population and Sample Size

The study used cluster sampling design. In the first stage, enumeration areas were selected from the national sampling frame, stratified and the study used a sample size of 930 women.

3.4 Study variables

The dependent variable for this research is modern contraceptive use. In the UDHS questionnaire, women were asked if they were using any method to delay oy avoid pregnancy, those who reported using any modern method were coded as 1 “yes” and those who reported not using, using traditional method or intend to use were coded as 0 “no”. Hence making it a binary outcome variable.

3.5 Data Analysis

Data analysis was conducted using statistical STATA version 15 software at three levels, which include, univariate, bivariate and multivariable levels. At univariate level frequence distribution was done to describe background characteristics of the respondents.

At bivariate level, cross tabulations were done using Pearson's Chi-square test to examine the association between dependent and each independent variable. The level of significance was fixed at 95% whereby any association less or equal to 0.05 was regarded as statistically significant. On the other hand, any association greater than 0.05 was not statistically significant. Chi square test took the following format

Pearson's Chi-square (χ^2) statistic is:

$$\chi^2 = \sum_{i=1}^{r}\sum_{j=1}^{c}\frac{(Oij - Eij)^2}{Eij}$$

Where: χ^2 = Pearson's chi-square statistic, Oij = Observed frequencies, Eij = Expected frequencies, c = number of columns, r = number of rows and Σ = Sum over all categories or cells

At multivariable level, binary logistic regression was used to establish the association between explanatory variables and the outcome variable. Binary logistic regression was used because of the nature of the outcome variable which was dichotomous. The results of the multivariable analysis were interpreted using odds ratios. The binary logistic regression model took the following format

Logistic regression model

$$\log\left(\frac{p}{1-p}\right) = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \cdots + \beta_k X_k$$

Interpretation of Odds Ratio

OR = 1 → no association, OR > 1 → higher odds of outcome (risk factor) and OR < 1 → lower odds of outcome (protective factor)

3.6 Ethical Consideration

Since this study used publicly available secondary data from the UDHS, no additional ethical approval will be required. However, ethical standards were maintained by ensuring that the

confidentiality and anonymity of survey respondents are preserved. Data obtained from the UDHS was pre-identified and does not contain any personal identifiers.

3.7 Limitations of the Study.

The use of secondary data limited the study to available variables in the UDHS 2016. The cross-sectional nature of the data limited causal interpretation of findings.

CHAPTER FOUR: RESULTS AND DISCUSSIONS.

4.0 Introduction

This chapter presents the distribution of respondents by their background characteristics and the association between independent variables and modern contraceptive use among women of reproductive use in Kigezi.

4.1 Background characteristics of respondents.

Table 4.1 presents the background characteristics of the respondents. The results show that almost a third (30.2%) of the respondents were using modern contraceptives. Regarding age, 22.2% of the respondents were aged 15–19 years. In terms of marital status, 40.7% of the respondents were married, while 21.3% were living with a partner. The largest proportion of respondents (72.8%) had attained primary education, while 20.0% had secondary education. Eight in every ten (83.4%) of the respondents resided in rural areas. Most respondents (64.5%) lived in male-headed households. Nearly a half (47.5%) of respondents had between one and four children. Nearly one-fifths (45%) of the respondents were Anglican. A larger proportion (35.5%) of the respondents were in the middle wealth index. Concerning occupation, 41.2% of respondents were self-employed in agriculture followed by 23.4% who were not working. Almost all respondents (99.4%) reported that they had knowledge of at least one modern contraceptive. Nearly three-quarters (73.5%) of the respondents reported that distance to a health facility was not a big problem. With respect to age at first sex, 51.8% reported that they had the first sexual intercourse at ages 15–19 years.

Table 4.1: Percent distribution of the respondents by Background characteristics

Variables	Categories	Frequency (n)	Percent (%)
Modern contraceptive use	0. no	511	69.8
	1. yes	221	30.2
Age in 5-year age groups	15-19	162	22.2
	20-24	132	18.0
	25-29	118	16.1
	30-34	112	15.4
	35-39	80	11
	40-44	70	9.5
	45-49	57	7.8
Current marital status	Never in union	201	27.4

	Married	298	40.7
	Living with partner	156	21.3
	widowed	27	3.6
	Divorced	2	0.3
	separated	49	6.7
Highest level of education	No education	91	12.4
	primary	441	72.8
	secondary	146	20.0
	higher	53.1	7.3
Type of place of residence	urban	122	16.6
	rural	610	83.4
Sex of household head	male	472	64.5
	female	260	35.5
No children ever born	No children	213	29.1
	1-4	347	47.5
	5-9	154	21.0
	10+	18	2.4
religion	No religion	1	0.2
	Anglican	329	45
	catholic	330	45
	Muslim	13	1.7
	born again	39	5.3
	others	20	2.7
Wealth index	lowest	16	2.2
	second	134	18.3
	middle	260	35.5
	fourth	223	30.5
	highest	99	13.5
Respondent's occupation	not working	171	23.4
	professional/technical/managerial	57	7.8
	clerical	3	0.4
	sales	47	6.4
	Agricultural - self employed	301	41.2
	household and domestic	12	1.7
	services	34	4.6
	skilled manual	90	12.3
	unskilled manual	16	2.2
Knowledge of any contraceptive method	Knows no method	4.1	0.6
	Knows modern method	727.5	99.4
Distance from health center	Big problem	194	26.5
	Not a big problem	538	73.5
Age at first sex	Not had sex	144	19.6
	10-14	65	8.9
	15-19	379	51.8
	20+	144	19.7

4.3 Socio demographic factors associated with modern contraceptive use.

The results of the socio demographic factors associated with modern contraceptive use among women in Kigezi region are presented in Table 4.2.

Table 2 shows that age of the respondent showed the strongest association with modern contraceptive use (p = 0.000). Modern contraceptive use was lowest among adolescents aged 15–19 years (4.7%) and increased substantially among women aged 20–39 years, peaking among those aged 30–34 years (48.3%). Use declined among women aged 45–49 years (17.3%).

Marital status was also significantly associated with modern contraceptive use (p = 0.000). Use was markedly low among women who had never been in union (5.9%) but substantially higher among married women (43.1%) and those living with a partner (43.5%).

Educational attainment showed a statistically significant association with modern contraceptive use (p = 0.0348). Modern contraceptive use increased with higher levels of education, from 23.6% among women with no education to 40.8% among those with higher education.

The association between place of residence and modern contraceptive use was statistically significant (p = 0.042). Urban women reported higher use (42.4%) compared to their rural counterparts (27.8%).

Sex of household head showed a significant association with modern contraceptive use (p = 0.000). Women in male-headed households reported higher contraceptive use (35%) than those in female-headed households (21.5%).

Parity (number of children ever born) was significantly associated with modern contraceptive use (p = 0.000). Use was lowest among women with no children (3.2%) and highest among women with 1–4 children (43.9).

Religion was significantly associated with modern contraceptive use (p = 0.0419). Higher use was observed among Muslims (42.8%) and Anglicans (35%) compared to Catholics (26.3%) and Born-again Christians (23.5%).

Respondent's occupation also showed a statistically significant association (p = 0.001). Modern contraceptive use was highest among professional/technical workers (46.4%), sales workers (45%), and service workers (43.5%), and lowest among women who were not working (15.2%).

Age at first sex was significantly associated with modern contraceptive use (p = 0.000). Women who initiated sex at ages 8–14 years (41.1%) and 15–19 years (37.5%) reported higher use compared to those who had never had sex (0%).

Education, knowledge of contraceptive methods, and distance to health facility were not statistically significant at the bivariate level.

Table 4.2: **Association between socio demographic factors and Modern Contraceptive**

Variable	**Categories**	**Modern contraceptive use**		x^2 **P value**
		No (69.8) %	**Yes** (30.2) %	
Age in 5-year age groups	15-19	5.3	4.7	$x^2(118.60)$ (P=0.000)
	20-24	72.1	27.9	
	25-29	57.4	42.6	
	30-34	51.7	48.3	
	35-39	55.9	44.1	
	40-44	61.5	38.5	
	45-49	82.74	17.25	
Current marital status	Never in union	94.1	5.9	$x^2(131.50)$ (P=0.000)
	married	56.9	43.1	
	Living with partner	56.5	43.5	
	widowed	88.9	11.1	
	divorced	100	0	
	separated	69.8	30.2	
Highest level of education	No education	76.4	23.6	$x^2(7.81)$ (P=0.0348)
	primary	68.5	31.5	
	secondary	73.4	26.6	
	higher	59.2	40.8	
Type of place of residence	urban	57.6	42.4	$x^2(13.53)$ (P=0.042)
	rural	72.2	27.77	
Sex of household head	male	65	35	$x^2(19.073)$ (P=0.000)
	female	78.5	21.5	
No children ever born	No children	96.6	3.2	$x^2(138.610)$ (P=0.000)
	1-4	56.1	43.9	
	5-9	64.2	35.8	
	10+	64.1	35.9	
Religion	No religion	49.5	50.5	$x^2(12.968)$ (P=0.0419)
	Anglican	65	35	
	catholic	73.7	26.3	
	Muslim	57.2	42.8	
	born again	76.5	23.5	
	others	83.5	16.5	

Wealth index	lowest	80.7	19.3	$x^2(14.578)$ (P=0.0541)
	second	66.7	33.3	
	middle	76.8	23.2	
	fourth	64.8	35.2	
	highest	65.3	34.7	
Respondent's occupation	not working	84.8	15.2	$x^2(45.143)$ (P=0.001)
	professional/technical/managerial	53.6	46.4	
	clerical	73.6	26.4	
	sales	55	45	
	Agricultural - self employed	67.8	32.2	
	household and domestic	59.6	40.4	
	services	56.5	43.5	
	skilled manual	71.3	28.7	
	unskilled manual	72.7	27.3	
Knowledge of any contraceptive method	Knows no method	100	0	$x^2(2.329)$ (P=0.116)
	Knows modern method	69.6	30.2	
Distance to Health Centre	Big problem	68.7	29.8	$x^2(0.209)$ (P=0.6277)
	Not a problem	70.2	27.9	
Age at first sex	Not had sex	100.00	0.00	$x^2(102.648)$ (P=0.000)
	8-14	58.9	41.1	
	15-19	62.5	37.5	
	20+	63.7	35.34	

4.4 Predictors of modern contraceptive use among women 15-49 years.

The predictors of modern contraceptive use are presented in table 4.3. The table presents the results of the multivariable logistic regression analysis examining factors associated with modern contraceptive use among women aged 15–49 years in Kigezi region.

Age of the respondent was strongly associated with modern contraceptive use. Compared to adolescents aged 15–19 years, women aged 20–24 years were more than twice as likely to use modern contraceptives (OR = 2.46, p = 0.024). The likelihood further increased among women aged 25–29 years (OR = 3.82, p = 0.001), 30–34 years (OR = 4.94, p = 0.000), 35–39 years (OR = 4.71, p = 0.001), and 40–44 years (OR = 3.87, p = 0.005).

Educational attainment was a significant predictor of modern contraceptive use. Women with primary education were more than twice as likely to use modern contraceptives compared to women with no education (OR = 2.23, p = 0.003). The odds increased further among women with secondary education (OR = 2.60, p = 0.016) and higher education (OR = 2.95, p = 0.011).

Marital status, specifically living with a partner, was significantly associated with modern contraceptive use. Women living with a partner were more than twice as likely to use modern contraceptives compared to women who had never been in union (OR = 2.56, p = 0.027).

Age at first sex was also a significant predictor. Women who initiated sexual activity at ages 8–14 years were significantly more likely to use modern contraceptives compared to women who had not yet had sex (OR = 1.77, p = 0.040).

Other variables, including place of residence, occupation, and remaining marital status categories, were not statistically significant at the multivariable level. This suggests that their effects on modern contraceptive use are largely mediated through age, education, union status, and sexual debut.

Table 4.3: Predictors of modern contraceptive use among women 15-49 years

Variables	Categories	Odds ratio	P value	C I
Age	20-24	2.461	0.024	1.13-5.35
	25-29	3.815	0.001	1.84-7.92
	30-34	4.941	0.000	2.28-10.70
	35-39	4.712	0.001	2.00-11.10
	40-44	3.867	0.005	1.56-9.60
	45-49	1.440	0.540	0.44-4.77
Marital status	married	2.412	0.053	0.99-5.87
	Living with partner	2.564	0.027	1.12-5.89
	widowed	0.381	0.156	0.99-1.47
	divorced	1		
	separated	7.431	0.577	0.26-2.16
Highest education level	primary	2.231	0.003	1.35-3.69
	secondary	2.603	0.016	1.21-5.61
	higher	2.947	0.011	1.31-6.65
residence	rural	0.641	0.248	0.30-3.42
Respondents' occupation	professional	1.528	0.294	0.68-3.42
	clerical	0.484	0.547	0.43-5.43
	sales	1.364	0.488	0.56-3.35
	agricultural	1.024	0.942	0.54-1.96
	Household and domestic	2.638	0.115	0.78-8.92
	Services	1.214	0.681	0.47-3.12
	Skilled manual	1.131	0.737	0.54-2.36
	Unskilled manual	1.241	0.740	0.34-4.58
Age at first sex	Not had sex	1		
	8-14	1.770	0.04	1.02-3.07
	15-19	1.397	0.10	0.94-2.08
	20+	1		

4.5 Discussion of predictors of modern contraceptive use

This study examined predictors of modern contraceptive use among women aged 15–49 years in the Kigezi region using multivariable logistic regression analysis. The findings indicate that age, educational attainment, marital status (living with a partner), and age at first sex were significant predictors of modern contraceptive use.

According to this study, age of the respondent was a strong predictor of modern contraceptive use, with women aged 20–44 years significantly more likely to use modern methods compared to adolescents aged 15–19 years. This is because older women are more likely to be married or in stable unions and to have achieved their desired family size, increasing the demand for contraception for spacing or limiting births. This finding aligns with evidence from the Uganda Demographic and Health Survey and other studies in sub-Saharan Africa, which consistently show that contraceptive use increases with age (UBOS, 2018, Cleland et al., 2012). In contrast, adolescents face multiple barriers to contraceptive use, including stigma, limited autonomy, and inadequate access to youth-friendly reproductive health services (organisation, 2014).

Educational attainment was also a significant determinant of modern contraceptive use. Women with primary, secondary, and higher education were more likely to use modern contraceptives compared to women with no education. This may be because education enhances women's knowledge of contraceptive methods, improves access to reproductive health information, and strengthens decision-making power within households. This finding is consistent with numerous studies conducted in Uganda and across sub-Saharan Africa, which demonstrate a strong positive relationship between education and contraceptive uptake(UBOS, 2018, Bbaale and Mpuga, 2011). Global evidence further indicates that educated women are better able to understand fertility risks and negotiate contraceptive use with partners (fund, 2019).

Marital status, particularly living with a partner, was significantly associated with modern contraceptive use. Women living with a partner were more than twice as likely to use modern contraceptives compared to women who had never been in union. This may be due to the fact that women in stable partnerships may have greater opportunities for spousal communication and joint decision-making regarding fertility preferences and family planning use. This finding is supported by previous studies in Uganda and other African countries, which show higher contraceptive use among women in unions due to regular sexual exposure and a greater need for birth spacing or

limiting(Cleland et al., 2006, UBOS, 2018). women in stable partnerships may have greater opportunities for spousal communication and joint decision-making regarding fertility preferences and family planning use.

Age at first sex was also a significant predictor of modern contraceptive use. Women who initiated sexual activity at younger ages were more likely to use modern contraceptives compared to women who had not yet had sex. This finding is consistent with literature suggesting that early sexual debut increases exposure to pregnancy risk, thereby increasing subsequent demand for contraception (Blanc et al., 2009). Studies in Uganda have shown that women who experience early sexual debut or early childbearing are more likely to encounter reproductive health services, such as antenatal or postnatal care, which can increase awareness and uptake of modern contraceptive methods later in life (UBOS, 2018).

Other variables, including place of residence and occupation, were not statistically significant at the multivariable level. This suggests that their effects on modern contraceptive use may be mediated through more proximal factors such as education, age, and marital status. Similar findings have been reported in multivariate analyses of DHS data, where rural–urban differences in contraceptive use diminish after controlling for socioeconomic characteristics(Bbaale and Mpuga, 2011, organisation, 2015). This underscores the importance of addressing underlying social determinants rather than focusing solely on geographic or occupational differences.

CHAPTER FIVE: SUMMARY CONCLUSSION AND RECOMMENDATION

5.1 introduction

This chapter presents the summary of the findings, conclusion based on the hypotheses and objectives, policy recommendations and recommendations for further study.

5.2 Summary

The study found that modern contraceptive use among women in Kigezi aged 15–49 years was 30.2%, indicating low uptake despite near-universal knowledge of modern contraceptive methods. Modern contraceptive use was significantly higher among women aged 25–44 years compared to adolescents aged 15–19 years.

Women who were married or living with a partner were more likely to use modern contraceptives than those who had never been in a union. Educational attainment was a key determinant, with women who had secondary or higher education showing higher contraceptive use than those with no or primary education. Media exposure also significantly increased the likelihood of modern contraceptive use.

Although factors such as wealth index, residence, religion, parity, occupation, and sex of household head were significant at the bivariate level, they lost statistical significance after adjustment, indicating that their effects were mediated by age, marital status, education, and information access.

5.3 Conclusion of the study

In line with the first objective, the study establishes that age was a significant determinant of modern contraceptive use. Women in older age groups were significantly more likely to use modern contraceptives compared to adolescents aged 15–19 years. This confirms the hypothesis that age is significantly associated with modern contraceptive use.

Regarding socio-economic factors, the study found that educational attainment and household wealth status were positively associated with modern contraceptive use. Women with secondary or higher education and those from wealthier households had higher odds of using modern contraceptives, supporting the hypothesis that socio-economic characteristics significantly influence contraceptive utilization.

Overall, the study concludes that modern contraceptive use is influenced by a combination of demographic, socio-economic, and reproductive factors, highlighting the need for targeted and equity-oriented family planning interventions.

5.4 Recommendation

Based on the study findings, the following recommendations are made:

The Ministry of Health and reproductive health stakeholders should strengthen age-specific family planning programs, particularly targeting adolescents and young women, who exhibit the lowest levels of modern contraceptive use.

Family planning programs should integrate female education and economic empowerment initiatives, as education and household wealth significantly enhance contraceptive uptake.

Health facilities should intensify family planning counseling and outreach services, especially through community health workers, to improve access and informed choice.

5.5 Areas for future research

Further research should use qualitative approaches to explore socio-cultural and behavioral barriers to modern contraceptive use that could not be fully captured in this study.

Longitudinal studies are recommended to better establish causal relationships between identified predictors and contraceptive use.

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