

**FACTORS ASSOCIATED WITH UTILISATION OF POSTPARTUM FAMILY
PLANNING AMONG ADOLESCENT MOTHERS AT MUBENDE REGIONAL
REFERRAL HOSPITAL, MUBENDE DISTRICT**

ROSAMOND ATENGA

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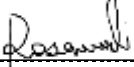
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Declaration

I, Rosamond Atenga, declare that this dissertation titled: “Factors Associated with Utilisation of Post-partum family planning among adolescent mothers at Mubende Regional Referral Hospital” is my original work, conducted under supervision of Ms Jacqueline Kobusingye for partial fulfilment of the award of Masters of public health leadership save the mothers at Uganda Christian University.

I attest that the data collected is authentic, adhering to ethical standards and any assistance received is duly acknowledged. All sources are cited, appreciated and this dissertation has not been submitted for any academic award. I comprehend the impact of misrepresentation and assert the integrity of this work

Signature 

Date; 6TH May 2025

Atenga Rosamond

(Researcher)

Signature 

Date 7th/May 2025

Ms. Jacqueline Kobusingye

(Supervisor)

Report approval form

Name of Student: Atenga Rosamond

Title of Research Study/ Project: Factors associated with utilisation of post-partum family planning among adolescent mothers at Mubende regional referral hospital.

I hereby accept this report for the above research study/Project and approve it for submission to the Uganda Christian University and other concerned organization's Institution Review Board/Research and Ethics Committee.

Signature: 

Date: 7th May 2025.

Ms. Jacqueline Kobusingye

(Supervisor)

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Dedication

I dedicate this research dissertation to the individuals who have served as my sources of strength and motivation throughout my academic Voyage. To my beloved daughters Kiisa and Magero whose consistent prayers, motivation, unwavering faith in me and continual encouragement have been the driving force behind my accomplishment. To my beloved SPNO Mubende RRH Sr Jane Edith Apunyo whose consistent support and sacrifices propelled me forward. This dissertation stands as evidence of our collective perseverance and shared aspirations.

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Acronyms and Abbreviations

ANC	:	Antenatal care
IUD	:	Intrauterine Device
LAM	:	Lactational Amenorrhea Method
MCH	:	Maternal Child Health
PNC	:	Postnatal care
PP	:	Postpartum
PPFP	:	Postpartum Family planning
RH	:	Reproductive Health
UDHS	:	Uganda Demographic Health Survey
WHO	:	World Health Organization

Definition of terms

- Adolescents** : Adolescence refers to a transitional stage of physical and psychological development that generally occurs during the period from puberty to adulthood the age range of 10 to 19 years.
- Contraceptives** : World Health Organisation (WHO) defines contraceptives as methods that prevent pregnancy, allowing individuals to make informed choices about their sexual and reproductive health.
- Family planning** : This refers to an individual's or couple's ability to plan, space, and choose the right time to give birth to achieve their desired family size.
- Postpartum Family Planning:** This is preventing unintended pregnancies within the first 12months following childbirth.
- Utilization** : According to my study, utilization means the ability to access family planning counselling, choose a method, and the method of choice is introduced.

1.0 Abstract

Postpartum family planning (PPFP) is critical in preventing unplanned pregnancies and improving maternal and child health outcomes. Despite national efforts in Uganda, adolescent mothers continue to exhibit low PPFP utilization, particularly in rural settings like Mubende District. This study aimed to determine the level of PPFP utilization and its associated factors among adolescent mothers at Mubende Regional Referral Hospital.

A cross-sectional study employing both quantitative and qualitative approaches was conducted among 123 postpartum adolescent mothers aged 13–19 years. Convenience sampling was used to recruit participants at the postnatal care clinic. Data were collected using structured questionnaires and key informant interviews. Quantitative data were analyzed using SPSS v25, employing descriptive statistics, chi-square tests, and multivariate logistic regression to determine predictors of PPFP utilization. Qualitative data were analyzed thematically.

The overall PPFP utilization rate was 61.8%. Injectables were the most commonly used method (48.5%), followed by implants (7.2%). Statistically significant predictors of PPFP utilization included discussing FP with a partner ($p = 0.002$), prior use of FP methods ($p = 0.000$), intention to use FP ($p = 0.003$), and being visited by a health worker ($p = 0.020$). Leadership support within the community was also significantly associated with PPFP uptake ($p = 0.029$). Multivariate analysis confirmed partner discussion ($B = 0.349$), type of method used ($B = 0.359$), and health worker visits ($B = 0.344$) as strong predictors.

Despite moderate levels of PPFP utilization among adolescent mothers in Mubende, key factors such as partner involvement, method awareness, and health worker engagement significantly influence uptake. Interventions should prioritize couple counseling, community leader involvement, and adolescent-friendly services to improve PPFP coverage.

The postpartum period, particularly the first 12 months following childbirth, presents a critical opportunity to initiate family planning (FP) interventions to prevent unintended pregnancies and improve maternal and child health outcomes. Globally, over 90% of women in the postpartum period express a desire to delay or avoid future pregnancies, yet many resume sexual activity without using contraceptives, increasing the risk of adverse health outcomes

for both mothers and infants. Short inter-pregnancy intervals have been linked to complications such as miscarriage, anemia, and low birthweight.

Postpartum Family Planning (PPFP) is defined as the prevention of unintended and closely spaced pregnancies during the first 12 months following childbirth. Despite its importance, PPFP remains underutilized, particularly among adolescents in low-resource settings. In Uganda, although 40% of women use modern FP methods, postpartum adolescent mothers exhibit significantly lower uptake rates (28%). In Mubende District, where adolescent deliveries constitute nearly half of all hospital births, PPFP coverage remains inadequate.

Previous studies have largely focused on general populations of women, with limited attention to adolescents, a group particularly vulnerable to repeat pregnancies, school dropout, and socio-economic disadvantage. Moreover, few studies have explored PPFP uptake among adolescents in rural Ugandan settings such as Mubende. This study therefore aimed to determine the level of utilization and identify individual, community, and health facility-related factors associated with PPFP utilization among adolescent mothers at Mubende Regional Referral Hospital.

CHAPTER ONE: INTRODUCTION

1.1. Introduction

This contains summary of the research, background of the study, problem statement, objectives, research questions, justification, significance, and conceptual framework that shapes the study.

1.2 Background of the study

The extended postpartum period, which is the first year after giving birth, is a critical time for obtaining family planning interventions and other critical healthcare services that are key to enhancing the health of both the mother and the child (Gaffield et al., 2014). Family planning empowers individuals and couples to control their family size, spacing, and timing of births through access to effective contraceptive methods. During this critical 12-month period, postpartum family planning (PPFP) plays a vital role in preventing unplanned pregnancies and ensuring adequate time between births, ultimately supporting healthy birth spacing and family well-being(World Health Organization, 2013).

Globally, over 90% of women who have just given birth want to either put off or prevent future pregnancies. However, in many cases, they resume sexual activity without family planning, leading to unintended pregnancies(Andualem et al., 2022). These pregnancies, whether they occur too soon, too close together, or too late in life, pose significant health risks to both mothers and babies. Women who become pregnant too early/after giving birth face higher risks of complications like miscarriage, excessive bleeding, anaemia, and delivering a low-birthweight or preterm baby. Additionally, the previously born child does not also receive adequate care and support, making them more vulnerable to disease and malnutrition(Andualem et al., 2022).

A comprehensive analysis of 172 countries revealed that family planning methods have significantly reduced maternal deaths, averting 44.3% of such deaths. Without family planning, maternal deaths would be approximately 1.8 times higher(Ahmed et al., 2012). With a maternal mortality rate of 412 deaths for every 100,000 live births, postpartum family planning, can have a significant impact in Ethiopia. By offering PPFP, medical professionals can lower the frequency of unsafe abortions, avoid unwanted pregnancies, and lessen maternal and foetal health issues(Csace, 2016). Postpartum Family Planning (PPFP) has immense potential in preventing unintended pregnancies and related complications globally. By utilizing PPFP, an estimated 71% of unwanted pregnancies can be prevented, translating to approximately 53 million fewer unintended pregnancies annually.

The World Health Organization recommends a minimum two-year interval between childbirth and the next pregnancy to minimize health risks for mothers and babies(Gaffield et al., 2014). Women should ideally start family planning six weeks postpartum, but many miss this window. The first year post-delivery is crucial for family planning services, yet nearly half of pregnancies occur within two years, underscoring the need for enhanced postpartum support.

In developing regions, Postpartum Family Planning (PPFP) utilization varies significantly, with the lowest rates found in West Africa (36.3%) and East Africa (39.5%)(Dev et al., 2019). The limited adoption of PPFP is due to a complex array of factors, including individual barriers, societal influences, and healthcare system challenges, which differ across regions and countries(Abraha et al., 2017; Kiondo et al., 2020; Sileo et al., 2015). These diverse obstacles hinder women's access to PPFP services, resulting in varying uptake rates across different areas.

In Ethiopia, district-level studies report a low 10.3% usage of postpartum family planning (PPFP), although country-level estimates suggest a slightly higher rate of 29%. In contrast, the overall average for developing regions is 41.2%, with some countries like Ghana reporting as low as 25.5%(Mengesha et al., 2015).

About 40% of Ugandan women utilize modern family planning techniques nationwide, whereas postpartum women use them at a rate of 28% (Reproductive Health Uganda, 2020). Understanding the variables affecting postpartum mothers access, use, and obstacles to family planning services is essential for creating interventions that meet their unique needs and increasing the uptake of PPFP. In Uganda, teenage girls give birth to a sizable percentage of babies (one in four)(Amongin et al., 2020), with half of them likely to have another child during their teenage years. Furthermore, the study had limitations, such as only evaluating women who had given birth during the previous five years and not especially focusing on adolescent mothers. To close these gaps, the current study will employ primary data to give updated estimates on PPFP usage among adolescent mothers of infants under 12 months, as well as investigate the factors associated with PPFP use. The aim is to empower post-partum adolescent mothers to utilize PPFP; directly reducing unplanned pregnancies, malnutrition, improving quality of life & productivity of women and children under five.

1.3 Problem Statement

Despite efforts to boost PPFp utilization, the percentage of Ugandan women who have a second live delivery before the age of 20 has remained stable over the past three decades, with no notable drop in repeat adolescent pregnancies (Muyama & Musaba, 2020). A study conducted by Muyama and Musaba (2020) in Uganda, Mbale City revealed that 61.5% of the adolescents had used family planning in the postpartum period. The prevalence was higher than that reported in Uganda Demographic Health Survey (2011) of 24.1%. Another study done in Uganda among adolescents in 2023 revealed that only 10% of the mothers utilized PPFp and this showed low utilization of PPFp.

Data from Mubende HMIS financial year (2023/24), shows that about 100 adolescent deliveries occur per month and this constitutes about half of total deliveries and at six weeks they are required to start FP. Out of the above deliveries 10% are obstructed labour and 5% are preeclampsia toxemia. Despite several interventions, access and utilization of postpartum FP methods is still not adequate by the adolescent mother. WHO recommends family planning for better health of the mother and the unborn child. If mothers do not enrol on Family planning, this poses health risks to both the mothers and babies. When a woman conceives too soon after giving birth, she faces a higher risk of complications like miscarriage, excessive bleeding, anaemia, and delivering a low-birthweight or premature baby (Kumari et al., 2019). Furthermore, the previously born infant may not receive appropriate care and support, making them more susceptible to sickness and malnutrition.

Therefore, interventions need to be done early to ensure that maternal and perinatal mortality in Uganda is reduced, through elimination of unplanned pregnancies; and short inter pregnancy interval (SIPI) or grand multiparty status (Serbanescu et al., 2017).

1.3.1 Purpose of the Study

To determine the level of utilisation of PPFp and its associated factor among adolescent mothers at Mubende Regional Referral hospital.

1.3.2 Specific objectives

1. To determine the individual factors associated with PPFp utilization among adolescent mothers at Mubende Regional Referral Hospital
2. To examine the community related factors associated with PPFp utilization among adolescent mothers at Mubende Regional Referral Hospital

3. To establish the health facility related factors associated with PFP utilization among adolescent mothers at Mubende Regional Referral Hospital

1.4 Research questions

1. What are the individual factors associated with PFP utilization among adolescent mothers at Mubende Regional Referral Hospital?
2. What are the community related factors associated with PFP utilization among adolescent mothers at Mubende Regional Referral Hospital?
3. What are the health facility related factors associated with PFP utilization among adolescent mothers at Mubende Regional Referral Hospital?

1.5 Justification

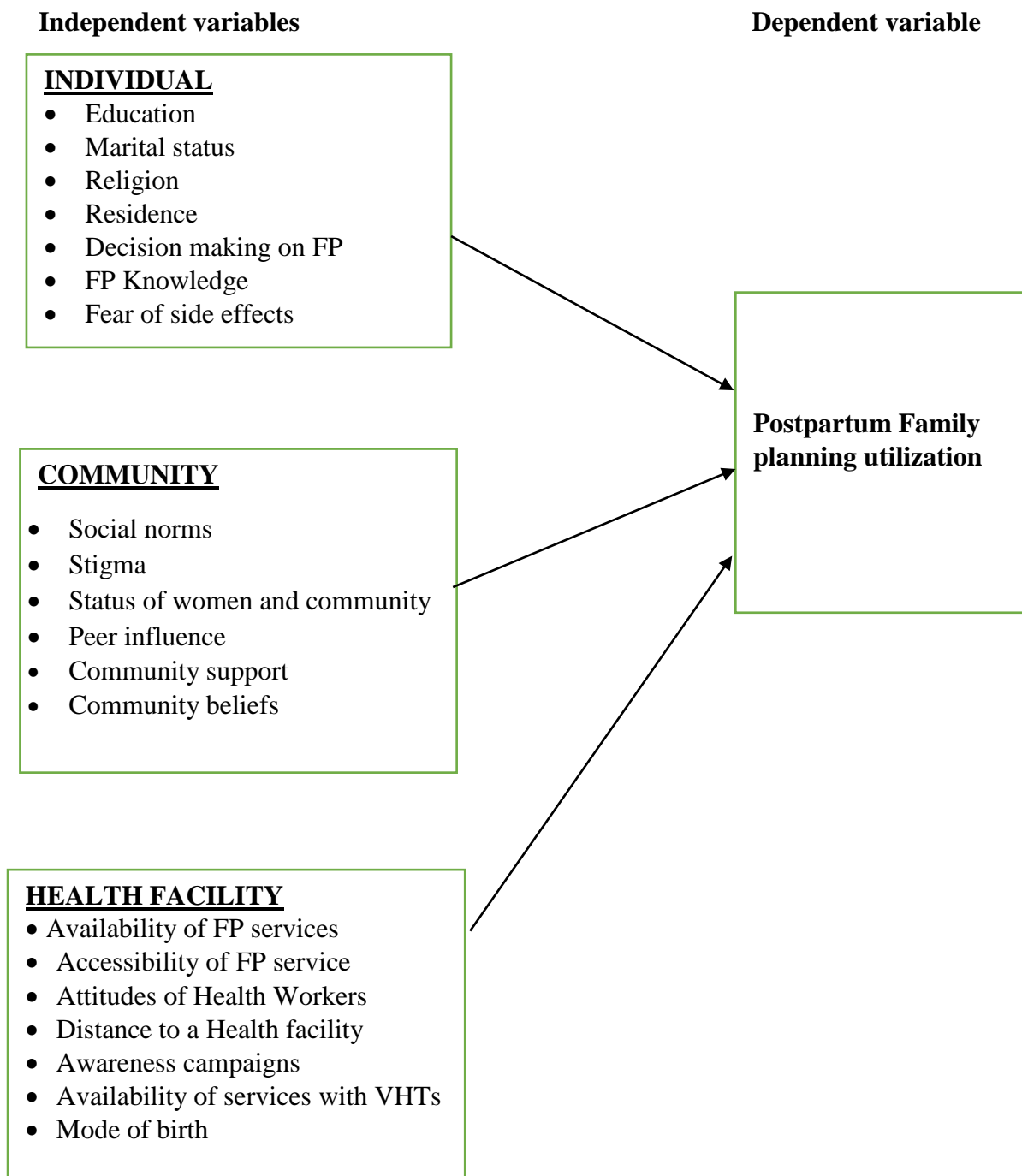
Several global and regional studies have investigated factors associated with postpartum family planning (PFP) utilization, often focusing on mothers of all ages without isolating adolescents as a distinct group (Abraha et al., 2017; Ahmed et al., 2012). While some studies have specifically examined adolescents (Muyama & Musaba, 2020). These were conducted in contexts different from Mubende, including both developed and other developing countries, which may not reflect the unique socio-cultural and health service dynamics of the area. In Uganda, a related study was conducted in Mbale City in Eastern Uganda (Reproductive Health Uganda, 2020) but its findings are geographically limited and cannot be generalized to the Central Region or rural settings like Mubende District. Moreover, Mubende Regional Referral Hospital, despite its high adolescent delivery rate, has not conducted such a study to date. Given the unique demographic, cultural, and healthcare characteristics of Mubende, this study provides much-needed, context-specific evidence to inform targeted interventions. The findings are expected to guide policymakers and healthcare providers in making informed, culturally sensitive decisions to improve PFP uptake among postpartum adolescent mothers in Mubende and similar settings.

1.6 Significance of the study

This study will help the management of the hospital to improve upon family planning service delivery for post-partum adolescent mothers in the area

This study may help the Government of Uganda and the ministry of health in cultivating a better family planning policies to promote increased uptake for family planning services. Surely the findings from this study will be utilised by future scholars doing further studies related to this topic.

1.7 Conceptual framework



Source: Adopted from a study by Bwazi (2012) and modified by the researcher.

Several studies have established that socio-demographic factors significantly impact FP utilization. This research builds upon a conceptual framework linking independent and dependent variables. Independent variables encompass individual, community, and health facility factors, while the dependent variable focuses on postpartum family planning utilization.

CHAPTER TWO: LITERATURE REVIEW

2.0. Introduction

This chapter presents the existing literature on factors influencing postpartum family planning utilization among adolescent mothers, drawing from diverse perspectives of scholars worldwide. Sources include peer-reviewed journal articles, manuscripts, reports, and newspapers.

The literature review is organized around the study's specific objectives, synthesizing existing knowledge to provide a foundational context for the research.

2.1 Individual factors

Marital status

A household survey in Angola was conducted by Prata et al. (2016) to ascertain the parameters impacting the family planning practices being used by women of reproductive age. The study found that marital status was a significant intrapersonal factor that positively linked with the use of contraceptives among adolescents and young adults. This conclusion was supported by a study conducted in Ethiopia, which found a strong correlation between family planning use and marital status. The study discovered a favourable relationship between family planning use and married status (Wassihun et al., 2021). The use of postpartum contemporary contraception was 2.8 times more common among married mothers.

Religion

Additionally, Muyama et al. (2020) observed that religion played a role in FP use, with Muslims (87, 26%), Catholics (101, 32%), and Anglicans (126, 40%) all using it. Because some religious groups oppose the use of contraceptives, it has been discovered that religion affects the usage of contraception (Ochako et al., 2017). Adoption of contraception was hampered by women's desire for additional children (Nanvubya et al., 2015). Furthermore, Jalu et al. (2019) identified that some women believe it is their religious duty to respect their husband's choice about using family planning.

Education

Research conducted in Uganda found a substantial relationship between family planning use and education, with postpartum family planning utilisation much stronger among women with secondary education than among those with lower education (Nakaggwa et al., 2023). According to the study, higher education levels are connected with a greater likelihood of

adopting modern family planning methods, and there is also a positive relationship between mothers' education levels and their usage of these methods.

According to a study by Wassihun et al. (2021), women who attended college education or higher had a higher likelihood to use FP methods than women who were found illiterate. This demonstrates that access to and utilisation of health care services, that is not limited to family planning, depends strongly on education. Moreover, higher education empowers postpartum women with a better understanding of modern contraceptives, their benefits, and the importance of fertility regulation. Educated women possess greater awareness of potential side effects, enabling them to make informed decisions about the most suitable contraceptive methods. This heightened awareness fosters increased adoption and effective utilization of family planning services.

Residence

Research in Uganda by Nakaggwa et al. (2023) discovered that urban mothers are more likely to utilize family planning services compared to ones in rural, highlighting residence as a significant factor influencing postpartum family planning. This phenomenon stems from tight-knit urban communities shaping individuals' attitudes and perceptions, whereas rural settings often feature more isolated lifestyles.

Additionally, Wegs et al.'s mixed-methods study (2016) found community perceptions significantly impact family planning adoption. Community discussions facilitate normative shifts, increasing family planning acceptance. Squarely, Male involvement has been recognized globally and nationally as a critical component of successful family planning programs. The Uganda National Family Planning Costed Implementation Plan (2015–2020) explicitly prioritized engaging men as supportive partners to increase contraceptive uptake and reduce gender-based barriers to family planning (Ministry of Health, Uganda, 2014). Similarly, WHO guidelines emphasize that empowering men with accurate knowledge and encouraging their participation in reproductive health decisions positively influences contraceptive use among couples. Studies have shown that supportive male partners enhance women's confidence in using family planning methods and mitigate fears of stigma or domestic conflict (Wegs et al., 2016). In particular, policies promoting couple-centered counseling and community outreach programs targeting men have been effective in addressing cultural and religious reservations that hinder contraceptive use. Incorporating male involvement policies into interventions therefore remains essential in improving postpartum family planning uptake.

Decisions on FP

A study in Kenya on FP uptake among adolescents and postpartum women, revealed significant partner involvement as a key factor associated with FP uptake. Over half of adolescents (58.5%) reported their husband/partner approved family planning use, increasing to 89% among those using modern methods. However, 38% had not discussed family planning with their partner. Conversely, 90.1% of adolescents using modern methods had prior discussions with their partners (Ndiritu, 2021). This highlights partner support and communication's crucial role in adolescent family planning decisions.

Studies on reproductive decision-making reveal diverse patterns. In one study, couples jointly decided on pregnancy (62%), while women (32%) and men (5%) made individual decisions (Muyama et al., 2020). However, other research indicates women's dependence on husbands' approval for family planning (Nanvubya et al., 2015) and men's dominant role in decision-making despite considering family planning a women's responsibility (Harrington et al., 2016).

A Nepalese study by Shahabuddin et al. (2019) examined married adolescents' access to maternal healthcare services, including family planning. The research revealed that family members, particularly mothers-in-law, partners, and others, significantly influenced adolescents' decisions.

A woman's agency and self-efficacy in choosing whether or not to take contraception are important components of her empowerment, in addition to her knowledge and perceptions about family planning (Wegs et al., 2016). One important individual component that encourages FP use is empowerment, which is demonstrated by having access to financial resources, being free to seek medical care, and having autonomy in making decisions about one's own fertility (Reed et al., 2016). Another important factor is women's participation in home decision-making that is to say, women who participate in making household decisions have higher chances to take contemporary contraception (Ola, Olorun & Hindin, 2014).

Family Planning Knowledge

In a study of 28 young, single women at a Ghanaian university, Gbagbo and Nkrumah (2019) discovered that although the students were aware of FP and had favourable opinions about it, they did not use family planning because of accessibility and availability concerns. The most utilized FP method was emergency contraception since it was easily accessible and didn't need a trip to a medical facility, which many people avoided because they felt stigmatized. Even

though family planning awareness has reportedly increased in Kenya and other nations, other areas lack correct information about FP utilization, especially in rural areas (Mutombo et al., 2014). Jalu et al. (2019) conducted a study in Somali area of Ethiopia and found that people's use of contraceptives was negatively impacted by their lack of awareness about current contraceptive methods and their distrust of modern healthcare practices (Jalu et al., 2019).

Side effects

A study reported that some mothers avoid family planning due to fear of the likely/associated side effects (Nakaggwa et al., 2023). Similarly, in Mbale, Muyama et al. (2020) reported that 314 (61.5%) of adolescent postpartum mothers had either used or were currently on contraceptives in the postpartum period. Among these, the majority, 202 (64.3%), opted for injectable contraceptives, 14 (4.5%) used intrauterine devices, and the remainder chose implants. Ndiritu (2021) investigated the factors influencing teens' and postpartum women's adoption of family planning in Kenya. According to the survey, 63.2% of teenagers said they intended to use FP in the future, compared to 12% who were unsure and 24.2% who had no plans to do so. Injectable contraceptives were the most utilized, with 977 (62.1%) of adolescent mothers choosing this option, followed by implants. However, 22.7% of respondents cited various reasons for discontinuation from contraceptive use, including side effects, health concerns, the need for a more effective method, and inconvenience (Ndiritu, 2021).

Intention to resume school.

Muyama et al (2020) reported that in Mbale 115(37%) of the adolescent PP mothers used FP methods because they wanted to resume their studies whereas, 141(45%) had no intention to resume school although they were using FP methods.

2.2 Community-level factors

Community norms and attributes

The opinions and norms of the community frequently influence a mother's decision to use or forego family planning. Women may be deterred from using family planning by community factors, such as criticism of contraception by community members (Wegs et al., 2016). According to Withers et al. (2015), who looked at men's perspectives on gender roles and cultural expectations surrounding family planning, men frequently cannot accept their spouses' use FP because of beliefs about its side effects.

Gueye et al. (2015) discovered that many community-level misunderstandings connected contraception to possible health concerns and women's fertility loss, which had a detrimental impact on the utilization of FP. Furthermore, even men who stated support for FP talked more about its drawbacks than its advantages, according to Withers et al. (2015). This implies that although men might express verbal support for family planning, they might not have the self-assurance in contraception to fully assist their partners in using it.

Sharing information

In Togo, Koffi et al. (2018) emphasized that men's support for contraception may rise if they are informed about the financial advantages of family planning. According to Withers et al. (2015), community-level conversations that address prevalent beliefs, misunderstandings, and the detrimental effects of gender inequality may also aid in changing norms to support the use of family planning. Similarly, according to David and Allan (2018), an intervention in Papua New Guinea showed that educating the community, particularly men about the advantages of FP could result in a change in attitudes and customs that place a higher priority on FP.

Community beliefs

In a qualitative study, Silumbwe et al. (2018) investigated the elements that hindered the community and health system levels' adoption of family planning services. Community stigma, negative traditional and religious views, rumours, myths, misconceptions, and side effects were among the obstacles to FP at the local level. Conversely, the desire to postpone conception, understanding of contraceptive technologies, and functional community institutions were variables that encouraged the use of FP.

Stigma

A common misconception is that FP is only for married people. A mixed-methods study done in southwest Nigeria by Sieverding et al. (2018), the community's attitudes regarding sexuality cause social stigma for adolescents who are not married. Healthcare providers' bias and discrimination exacerbate this stigma. Some health professionals even discourage unmarried teens from FP use completely, and many are ignorant about recommending longer-acting contraceptive methods to clients.

2.3 Health facility-related factors

Health worker relationships, attitudes, and behaviors

Ndiritu's (2021) study on factors affecting family planning uptake among adolescents and postpartum women in Kenya revealed that only a small percentage of respondents had been visited by a health worker specifically, 4.8% of adolescents in the past 12 months. Among those adolescents using modern family planning methods, just 11% had been visited by a family planning worker. Furthermore, only 3.5% of adolescents had received a visit from a health worker to discuss family planning.

Accessibility and availability of FP services

Two major factors influencing the use of postpartum family planning (PPFP) services are accessibility concerns and the absence of family planning options in medical institutions (Nakaggwa et al., 2023). Prata et al. (2016) carried out a household survey in Angola and discovered that older women who got family planning information from pharmacies were more likely to use contraception.

In Nepal, it was discovered that restrictive operation hours and unwelcoming, inaccessible services impeded service uptake at the policy level. The usage of FP methods was positively impacted by a supportive community setting, which included the availability of female health workers and women's organizations that spread knowledge (Shahabuddin et al., 2019).

Awareness of FP services.

Following contraceptive education from Village Health Teams (VHTs), 130 (41%) of respondents to a study on factors impacting family planning uptake among adolescents and postpartum mothers in Kenya used family planning (Ndiritu, 2021).

Ndiritu's (2021) study also revealed that 17.4% of adolescents had received information about family planning at public forums, and among those modern methods, 27.6% had been exposed to these messages in such settings. Additionally, 19.6% of adolescents reported hearing favourable statements about family planning from political, religious, or community leaders. Only 11.3% of adolescents had learned about FP methods at the health facility; however, among those using modern methods, 33.3% had received information from a health facility.

Furthermore, 65.7% of youth who utilized modern methods had visited a health facility, with 44.3% having done so in the year preceding the interview. 36.7% of teenagers were asked about their family planning needs after giving birth. After giving birth, 49.6% of women who

used current methods were questioned about their family needs, while only 30.1% of women who did not utilize modern methods were given the same question (Ndiritu, 2021).

Mode of birth

According to Muyama et al, (2020), most respondents who used FP methods had delivered Vaginally 282(90%). The majority 268 (85%) had birth-to-birth intervals of ≥ 2 years with < 2 years 46 (15%). Adolescent mothers also utilized contraceptives since 274 (87%) who opted to use family planning methods reported no delivery issues, whereas 32 (10%) of the respondents had complications during labor and needed a cesarean section.

2.4 Summary of the literature and gap

The literature indicates that individual factors such as marital status, education level, and place of residence significantly affect PFP uptake among adolescent mothers. Married adolescents and those with higher educational attainment had higher odds to utilize PFP methods (Wassihun et al., 2021). Additionally, living in rural areas is linked to lower PFP uptake due to limited access to healthcare services (Nakaggwa et al., 2023).

PFP uptake is impacted by issues associated with healthcare facilities, which include; availability and accessibility of family planning services; a barrier to PFP uptake is the lack of contraceptive techniques in health facilities (Nakaggwa et al., 2023). Moreover, the literature underscores the importance of involving men in family planning decisions and addressing power dynamics and gender roles, which influence PFP uptake (Harrington et al., 2016).

The literature highlights the necessity for a comprehensive approach to enhance PFP uptake among adolescent mothers by addressing individual, community, and healthcare facility-related factors. There are also knowledge gaps regarding the factors that influence postpartum family planning uptake among adolescent mothers, particularly in rural settings (Nakaggwa et al., 2023).

Additionally, there is limited knowledge of modern contraceptive methods and their benefits among adolescent mothers (Jalu et al., 2019). Furthermore, insufficient information is available on the role of community norms and attributes in influencing PFP uptake (Wegs et al., 2016).

Methodological gaps are also evident, as most studies have used cross-sectional designs, limiting the understanding of causal relationships between factors and PFP uptake. The limited use of mixed-methods approaches has also restricted the exploration of complex

factors influencing PPFU uptake (Ndiritu, 2021). Few studies examined the perspectives of adolescent mothers themselves, with most studies focusing on healthcare providers or community members (Muyama et al., 2020).

A significant geographic gap exists because several research has been done in urban areas, with little done in rural areas where access to healthcare services may be more difficult (Nakaggwa et al., 2023). Additionally, in some areas, such as Eastern Africa, where adolescent pregnancy rates are high, studies remain limited (Jalu et al., 2019).

CHAPTER THREE: METHODOLOGY

3.0 Introduction

This chapter describes the methods utilized in the study. This includes the study design, study area, study population, sampling size determination, inclusion criteria, study variables, research instruments, Validity and reliability, data management, data processing and analysis, anticipated limitations, Ethical considerations, and dissemination of results.

3.1 Study Design

This study employed both quantitative and qualitative research methods in a cross-sectional study design analytical in nature. This study adopted a cross-sectional study design, which involves collecting data at a single point in time to provide a snapshot of the current situation. A cross-sectional design is particularly suited for descriptive and analytical purposes, as it allows the researcher to measure the prevalence of a phenomenon and explore associations between variables without manipulating the study environment.

In this study, the cross-sectional design enabled the collection of data from adolescent mothers attending the postnatal care clinic at Mubende Regional Referral Hospital during the study period, capturing their postpartum family planning (PPFP) utilization and related factors at one moment in time. This design was chosen for its efficiency, cost-effectiveness, and suitability for identifying patterns and correlations in a relatively short timeframe.

The design facilitated analysis of how demographic characteristics, knowledge, attitudes, and healthcare system factors were associated with PPFP utilization. Statistical methods were employed to determine predictors of utilization, enhancing the analytical rigor of the study. The inclusion of a qualitative component further enriched the findings by providing context and insight into the experiences and perspectives of key informants, complementing the quantitative results.

3.2 Study Area

The study was conducted at Mubende Regional Referral Hospital Post-natal care clinic (PNC.) Mubende Regional Referral Hospital, in the Central Region of Uganda. It is the referral hospital for the districts of Mubende, Mityana, Kiboga, kakumiro, and Kyankwanzi. Maternity unit conducts an average of 4400 deliveries a year of which about half of these are adolescent mothers (2,200).(Sensalire et al., 2019). The age group for the study was 13-19

years old. The Hospital on average receives 100 deliveries among adolescent mothers per month. The hospital had been chosen for the study because of its high number of adolescent deliveries conducted per month and therefore, the researcher would want to know also the utilization of the post-partum family planning methods among these adolescents' mothers.

3.3 Study population

The study included all postpartum adolescent mothers at Mubende Regional Referral Hospital. The study was conducted for one month; it targeted a population of 184 adolescent mothers aged 13 to 19 years attending health services at Mubende Regional Referral Hospital.

3.4 Sample size determination.

The 1970 Krejcie & Morgan sample size determination table was used to calculate the required sample size for this study. This table is a widely recognized and validated method for determining sample sizes for finite populations, providing a balance between precision and feasibility. It is preferred in survey research because it is based on the formula for estimating a population proportion with a specified confidence level (typically 95%) and margin of error (commonly 5%), assuming maximum variability ($p = 0.5$). This makes it suitable for studies where the exact proportion of the outcome (in this case, PPFU utilization) is unknown.

For this study, the **target population** was defined as all postpartum adolescent mothers (aged 13–19 years) attending postnatal care services at Mubende Regional Referral Hospital within the study period. Based on hospital records for the preceding months, approximately **184 postpartum adolescent mothers** were expected to attend PNC services during the one-month data collection period. This figure (184) therefore represented the total accessible population (N) for the study.

Using the Krejcie & Morgan table for a population (N) of 184, the corresponding recommended sample size (n) is 123. This sample size ensures adequate statistical power to estimate the proportion of postpartum family planning utilization among adolescent mothers with a 95% confidence level and $\pm 5\%$ margin of error.

The dependent variable — utilization of PPFU methods by adolescent mothers at Mubende Regional Referral Hospital — was central to the sample size estimation, as the study sought to estimate the proportion of adolescents utilizing PPFU in this defined population. Since no prior estimate for this specific population was available, the calculation assumed $p = 0.5$ to ensure the largest required sample size, maximizing precision.

The formula is given.

$$n = \frac{X^2 N p(1-p)}{e^2(N-1) + X^2 p(1-p)}$$

whereby

n=sample size

N=population size

e=acceptable sampling error (0.05)

x²=chi-square degree of freedom 1 and confidence interval 95% (3.841)

p=proportion of population and here it's unknown (we assume it to be 0.5)

3.5 Sampling method

This study employed convenience sampling to recruit postpartum adolescent mothers attending services at Mubende Regional Referral Hospital. Convenience sampling is a non-probability sampling technique in which participants are selected based on their availability, accessibility, and willingness to participate.

At the start of each clinic day during the data collection period, the researcher worked with the postnatal care (PNC) in-charge to obtain the list of adolescent mothers (aged 13–19) who had registered for PNC services that day. All eligible adolescent mothers present were approached in the waiting area, the purpose of the study was explained to them, and informed consent was obtained. Those who agreed to participate were consecutively enrolled in the study.

In total, approximately 140 adolescent mothers were approached, of whom 123 consented and participated in the study, yielding a response rate of approximately 88%. This method was chosen because it was efficient and cost-effective, enabling recruitment from a readily accessible population within the hospital, while capturing the perspectives and experiences of adolescent mothers actively seeking postpartum care.

For the qualitative component, purposive sampling was used to recruit health workers for key informant interviews. Health workers who were directly involved in maternal and child health services, and who were deemed knowledgeable about postpartum family planning issues, were approached and invited to participate. A total of six key informants were interviewed, and data collection continued until thematic saturation was reached.

3.6 Inclusion and exclusion criteria

Inclusion criteria

Adolescent mothers aged 13 to 19 years attending services (PNC) with children of up to 1 year (12 months) at Mubende Regional Referral Hospital who consented.

Exclusion Criteria

All pregnant adolescent mothers attending other services other than Post Natal Care services.

3.7 Study variables

3.7.1 Dependent

Utilization of PFP methods by adolescent mothers at Mubende Regional Referral Hospital. This was measured in percentages. This was assessed by the percentage of those already on family planning and those not yet on family planning. The methods currently being utilized was also assessed.

3.7.2 Independent

The independent variables in this study, as derived from the conceptual framework, were grouped into three main categories:

i. Individual Factors

- Age of the mother
- Marital status
- Level of education
- Occupation/employment status
- Religion
- Knowledge of postpartum family planning (PFP)
- Attitudes toward PFP
- Perceived side effects of contraceptives
- Decision-making autonomy on contraceptive use

ii. Community-Level Factors

- Support from male partner
- Family and peer influence
- Cultural beliefs and norms regarding contraception

- Community perceptions about PPF
- Male involvement in reproductive health decisions

iii. Health Facility-Related Factors

- Availability of PPF services
- Accessibility of the facility (distance, transport)
- Health worker attitudes and support
- Waiting time at the facility
- Availability of counseling on PPF during PNC visits
- Availability of preferred contraceptive methods

3.8 Data Collection Procedures

The data collection process began with approval of the proposal and permission from the Research and Ethics Committee (REC) at Uganda Christian University, which issued an introduction letter to the Hospital Director and the Hospital Research and Ethics Committee at Mubende Regional Referral Hospital (MRRH).

At the facility, the Postnatal Care (PNC) in-charge introduced the researcher to the eligible clients. From the list of adolescent mothers available at the clinic on each day, those who met the inclusion criteria were approached. The purpose of the study was explained to each potential participant, and those who voluntarily consented were enrolled in the study. Respondents were assured of confidentiality and their right to withdraw at any time.

Data were collected using a self-administered questionnaire consisting of close-ended questions. For respondents who were unable to read or write, the researcher (or trained research assistant) administered the questionnaire verbally in the local language to ensure comprehension and accurate responses.

3.9 Research instruments

Questionnaire

The researcher utilized a structured self-administered questionnaire to collect data. The design of the questionnaire aligned with the study's objectives. Section A covered the socio-demographic characteristics of the respondents, Section B addressed individual factors, and Section C focused on health facility-related factors. The questionnaire consisted of closed-

ended questions. This method was chosen for its simplicity and cost-effectiveness in collecting data from many participants in a short time. Additionally, it was advantageous because it allowed for data collection at a single point in time.

Key informant guide

This study employed Key Informant Guide (KII) to collect information from health workers at Mubende Regional Referral Hospital in Mubende District. The KII were used to examine the factors associated with the utilization of postpartum family planning among adolescent mothers.

The guide was administered to health workers who offer postpartum family planning services to adolescent mothers at Mubende Regional Referral Hospital. It was organized into sections: Section A gathered demographic information about the health workers, while Section B focused on the health facility factors influenced family planning practices among postpartum adolescent mothers.

3.10 Validity and Reliability

3.10.1 Reliability

To ensure accuracy in the results, items in the instruments was adequately and appropriately organized according to the specific objectives of the study. The data collection instruments were discussed with the research supervisor to ensure accuracy and appropriateness. The questionnaire was pretested on five clients from Kuyuni HCIII before embarking on the actual study. Ambiguous questions identified was removed for accuracy and appropriateness. For consistent and reliable results from the research, the instrument was constructed using simple language and appropriate vocabulary for easy understanding for the selected respondents.

3.10.2 Validity

On the other hand, the degree to which the instrument's items accurately reflected the pertinent characteristics of the research determined its content validity. In this case, the senior reproductive health officer and the research supervisor at Mubende Regional Referral Hospital, who both have a great deal of experience and knowledge in the field, provided helpful criticism that maintained the validity of the study.

3.11 Data Management

The researcher collected the questionnaires from respondents after they had filled in their views and responses. The researcher counted and checked all questionnaires so that all that

was returned were completely filled. All variables were given numbers and coded and afterward stored in a file and locked in a cupboard for safety.

3.12 Data processing and analysis

Data checking was done immediately before departing ways with the respondents. Then, data coding and entry followed. Data processing was done by the researcher using computer software, SPSS version 25 and Excel. Thereafter data at univariate analysis, data was analyzed by use of descriptive statistics such as the use of frequencies and percentages. Analyzed data was presented in the form of tables, Objectives one, two, and three was subjected to bivariate analysis using the chi-square test of relationship. Those variables found with a p-value less than 0.05 was considered to be factors associated with PFP utilization. However, all those factors found to have p-value less than 0.05 were subjected to multivariate analysis and those found with p-value less than 0.05 were considered to be true factors related with family planning utilization among adolescents.

Themes were used to examine the qualitative data, which has been presented in quotes as they occurred throughout the data collection procedure. The quantitative results were enhanced by these discoveries. Qualitative findings were also presented through narratives. The main ideas were manually examined.

3.13 Ethical considerations

The proposal was submitted for approval to the research committee of Uganda Christian University. In order to request approval from the hospital director of Mubende RRH and the hospital research committee, the researcher received an approval letter and introductory letter from Uganda Christian University. The research tool had a cover letter from the research committee and the hospital director attached. The researcher presented herself and handed the letter over to the postnatal clinic's supervisor. Informed consent was sought from each study participants in attendance. Throughout the data collection process, participants were guaranteed the privacy of the information. Respondents were cautioned not to write their names on the questionnaires and all the questionnaires were securely and safely kept by the Researcher. Participation was voluntary, and a respondent would make informed decisions prior to consent. Each participant was free to withdraw at any time from participating on the study.

3.14 Anticipated Limitations

Respondent's level of understanding and interpretation of questions was low due to lower level of education or language barrier hence affecting the yield of the study. The researcher

overcame it by translating for easy understanding. The researcher also anticipates time limitations due to competing University programs; however, the researcher adhered to the University calendar.

3.15 Dissemination of results

The data collected was analysed and an approved research report was printed into three copies and distributed as follows; one copy given to Uganda Christian University, one copy to Mubende Regional Referral Hospital, and then another copy retained by the researcher for future reference. Finally after graduation, this research shall be published so as people to access information for either application or improvement.

CHAPTER FOUR

RESULTS

4.0 Introduction

This chapter presents the results/findings of the study which was conducted to establish the factors associated with utilization of postpartum family planning among adolescents Mothers at Mubende Hospital. The study involved 123 adolescent mothers, and the results of the study are presented below.

4.0.1 Socio-demographics of respondents

Table 1: Socio-Demographic characteristics of respondents

Socio-demographics	Frequency	Percent
Age of respondents		
13-15	7	5.7
16-19	116	94.3
Age of delivery		
14	4	3.3
15	15	12.2
16	19	15.4
17	9	7.3
18	28	22.8
19	48	39.0
Religion		
Christian	115	93.5
Muslim	8	6.5
Marital status		
Single	22	18.2
Married	99	81.8
Education level		
No formal education	2	1.6
Primary	71	57.7
Secondary	50	40.7
Employment status		
None	18	14.6
Laborer	14	11.4
Business	39	31.7
Farming	52	42.3
Residence		
Rural	85	69.1
Urban	38	30.9

Source: Primary Data, 2025

The adolescent mothers ranged from 13 to 19 years old, with 94.3% (116) between 16 and 19 years old and 5.7% (7) between 13 and 15 years. The age at delivery varied: 3.3% (4)

delivered at 14, 12.2% (15) at 15, 15.4% (19) at 16, 7.3% (9) at 17, 22.8% (28) at 18, and 39% (48) at 19.

Most respondents identified as Christian (93.5%, 115) and married (81.8%, 99). Education levels revealed 1.6% (2) with no formal education, 57.7% (71) with primary education, and 40.7% (50) with secondary education. Employment status showed 14.6% (18) were unemployed, 11.4% (14) laborers, 31.7% (39) business owners, and 42.3% (52) farmers. Residentially, 69.1% (85) lived in rural areas and 30.9% (38) in urban areas.

4.1 Individual factors associated with PFP utilization among Postpartum adolescent mothers at Mubende Regional Referral Hospital

Table 2: Individual factors associated with PFP utilization among Postpartum adolescent mothers

Individual factors	Utilization of FP		P-value
	Yes	No	
Age			
13-15	4(3.4)	3(2.5)	0.679
16-19	72(61.0)	39(33.1)	
Religion			
Christian	70(59.3)	40(33.9)	0.517
Muslim	6(5.1)	2(1.7)	
Marital status			
Single	13(11.2)	7(6.0)	0.972
Married	62(53.4)	34(29.3)	
Education level			
No formal Education	2(1.7)	-	0.080
Primary	39(33.1)	30(25.4)	
Secondary	35(29.7)	12(10.2)	
Employment status			
None	11(9.3)	6(5.1)	0.113
Laborer	5(4.2)	9(7.6)	
Business	25(21.2)	10(8.5)	
Farming	35(29.7)	17(14.4)	
Residence			
Rural	54(45.8)	27(22.9)	0.448
Urban	22(18.6)	15(12.7)	
Knowledge on FP			
Yes	47(38.8)	43(35.5)	0.801
No	17(14.0)	14(11.6)	
Methods used			
Pills	1(1.0)	1(1.0)	0.059
Condoms	4(4.1)	5(5.2)	
Injectables	47(48.5)	17(17.5)	
Contraceptive implant	7(7.2)	9(9.3)	
Lactation Amenorrhea	-	2(2.1)	
Calendar Days Method	2(2.1)	1(1.0)	

Withdrawal	-	1(1.0)	
Type of person who decides on FP			
My self	42(36.2)	40(34.5)	0.132
Spouse	18(15.5)	12(10.3)	
Community	4(3.4)	-	
Do you discuss about contraceptives as a couple			
Yes	37(41.6)	17(19.1)	0.000
No	9(10.1)	26(29.2)	
Ever used FP methods			
Yes	53(44.9)	23(19.5)	0.000
No	11(9.3)	31(26.3)	
Intention to use FP			
Yes	35(37.2)	30(31.9)	0.003
No	6(6.4)	23(24.5)	

Source: Primary Data, 2025

The study examined individual factors influencing PPFU utilization among postpartum adolescent mothers. Age-wise, a majority of postpartum adolescent mothers who utilized family planning were aged 16-19 years (61.0%), compared to a smaller proportion in the 13-15 age group (3.4%). Those who did not utilize family planning were also predominantly aged 16-19 years (33.1%), with only 2.5% falling within the younger age bracket. However, the association between age and PPFU utilization was not statistically significant ($p=0.679$).

In terms of religion, the majority of adolescent mothers who used postpartum family planning (PPFU) were Christians (59.3%), and they also formed the largest group among non-users (33.9%). Muslim adolescent mothers represented a smaller share of both users (5.1%) and non-users (1.7%). However, there was no statistically significant link between religion and PPFU use ($p = 0.517$).

Marital status seemed to affect PPFU utilization, with married adolescent mothers comprising the largest portion of users (53.4%) and non-users (29.3%). Single adolescent mothers made up 11.2% of users and 6.0% of non-users. Despite these differences, the association between marital status and PPFU use was not statistically significant ($p = 0.972$).

Educational attainment showed some differences in PPFU use. Those with secondary education made up 29.7% of users, while those with only primary education accounted for 33.1%. Interestingly, none of the non-users reported having no formal education, whereas 1.7% of users had not received any formal schooling. Still, the relationship between education level and PPFU utilization was not statistically significant ($p = 0.080$).

Regarding employment status, adolescent mothers involved in farming reported the highest use of PPFU (29.7%), followed by those in business (21.2%), laborers (4.2%), and those

unemployed (9.3%). Among non-users, the highest proportion was also among farmers (14.4%), followed by those in business (8.5%), laborers (7.6%), and the unemployed (5.1%). However, no significant association was found between employment status and PPFU use ($p = 0.113$).

When considering place of residence, postpartum adolescent mothers living in rural areas showed higher usage of family planning methods (45.8%) compared to their urban counterparts (18.6%). This pattern was also evident among non-users, with 22.9% residing in rural areas and 12.7% in urban areas. Nevertheless, the link between residence and PPFU utilization was not statistically significant ($p = 0.448$).

Findings also indicate that knowledge of family planning (FP) methods alone does not significantly impact utilization (p -value 0.801). Instead, previous FP method usage (p -value 0.000) and intention to use FP (p -value 0.003) significantly influenced PPFU utilization.

Injectables were the most commonly used FP method (48.5% vs. 17.5%), followed by contraceptive implants (7.2% vs. 9.3%). Notably, couples discussing contraceptives (41.6% vs. 19.1%, p -value 0.000) and prior FP method usage (44.9% vs. 19.5%, p -value 0.000) significantly correlated with PPFU utilization.

Decision-making authority also played a role. Respondents who made their own FP decisions showed higher utilization rates (36.2% vs. 34.5%, p -value 0.132). Couples' discussion about contraceptives emerged as a crucial factor in PPFU utilization.

This study also had qualitative findings on the individual factors and these were;

"As a nurse, I've worked with many adolescent mothers who are unaware of the family planning options available to them. Some think it's only for older women or married couples. We offer services like implants and injectables, but the quality of care can be affected by the high number of patients we handle daily. I think providing more one-on-one counseling and extending the hours of operation would help adolescent mothers feel more comfortable and supported in their decisions." (KII 4, Female, 2025)

"I have worked at Mubende Regional Referral Hospital for over 10 years, and I've seen how adolescent mothers struggle with postpartum family planning. Many are motivated to prevent another pregnancy so they can focus on their education or work, but they face barriers like stigma, lack of knowledge, and fear of side effects. The hospital offers services like injectables, implants, and counseling, but we need more resources and community support to make these services truly effective. I believe educating families and

community leaders about the benefits of family planning is key to improving uptake among young mothers." (KII 1, Male, 2025)

"As a midwife, I interact with adolescent mothers daily, and I've noticed that many are eager to use family planning but are held back by cultural norms and misinformation. Some families believe that using contraceptives will make young women infertile, which is not true. At the hospital, we provide services like pills and condoms, but we sometimes face stockouts, which discourages mothers from returning. I think involving community leaders in family planning campaigns and offering more adolescent-friendly services would make a big difference." (KII 2, Female, 2025)

4.2 Community related factors associated with PFP utilization among adolescent mothers at Mubende Regional Referral Hospital

Table 3: Chi-square test of relationship between community factors and utilization of FP

Community factors	Utilization of FP		P-value
	Yes	No	
Community support on FP			
Supports	52(45.2)	8(7.0)	0.475
Doesn't support	45(39.1)	10(8.7)	
Leadership support			
Yes	51(44.0)	8(6.9)	0.029
No	38(32.8)	19(15.3)	
Decisions are made by Husbands on FP			
Yes	32(28.6)	25(21.3)	0.194
No	26(23.2)	29(25.9)	
It's my decision to use FP			
Yes	42(36.8)	17(14.9)	0.099
No	31(27.2)	24(21.1)	
It's a community decision to use FP			
Yes	26(23.0)	31(27.4)	0.496
No	22(19.5)	34(30.1)	
Influence of peers/community			
Yes	40(34.2)	21(17.9)	0.586
No	34(29.1)	22(18.8)	
Community beliefs			
Yes	42(36.8)	15(13.2)	0.310
No	37(32.5)	20(17.5)	
Belief on producing more children			
Yes	38(33.9)	17(15.2)	0.939
No	39(34.8)	18(16.1)	
Presence of women groups on FP			
Yes	42(37.2)	16(14.2)	0.631
No	42(37.2)	13(11.4)	

Source: Primary Data, 2025

The study examined community factors influencing family planning (FP) utilization among adolescent mothers. Community support showed 52 (45.2%) utilizing FP and 8 (7%) not, but this association was not statistically significant (p-value 0.475). In contrast, leadership endorsement significantly impacted FP utilization (p-value 0.029), with 51 (44%) using FP and 8 (6.9%) not. Decision-making dynamics revealed varied influences, including husbands (32/28.6% using FP, 25/21.3% not, p-value 0.194), self (42/36.8% using FP, 17/14.9% not, p-value 0.099), and community (26/23% using FP, 31/27.4% not, p-value 0.496). Other factors showed no significant association with FP utilization, including peer influence (40/34.2% using FP, 21/17.9% not, p-value 0.586), community beliefs (42/36.8% using FP, 15/13.2% not, p-value 0.310), desire for more children (38/33.9% using FP, 17/15.2% not, p-value 0.939), and presence of women's groups (42/37.2% using FP, 16/14.2% not, p-value 0.631).

The qualitative findings also suggested community factors influencing family planning utilization among adolescents and the narratives from respondents were;

"I'm a clinical officer at the hospital, and I've seen how adolescent mothers' decisions about family planning are influenced by their partners and families. Some young mothers want to use contraceptives but are afraid of being judged or abandoned by their partners. The hospital tries to make services accessible, but the distance and cost of transportation can be a challenge. I believe we need to engage men and boys in family planning discussions to address these issues and create a more supportive environment for young mothers." (KII 3, Male, 2025).

"I'm a community health worker, and I've seen how community beliefs and norms impact adolescent mothers' use of family planning. In some areas, people think family planning is against their religion or culture, which makes it hard for young mothers to access services. The hospital does its best to provide care, but we need more community outreach programs to change these negative attitudes. I believe working with religious and political leaders to promote family planning could help shift these perceptions."(KII 5, Male, 2025).

"As a counselor at the hospital, I've spoken to many adolescent mothers who are interested in family planning but are worried about the side effects or what their families will say. We offer counseling and a range of methods, but some mothers are hesitant to return because of the stigma they face at home. I think creating support groups for young mothers and increasing awareness through radio and social media would encourage more of them to use postpartum family planning services." (KII 6, Female, 2025).

4.3 Health facility related factors associated with PFP utilization among adolescent mothers at Mubende Regional Referral Hospital

Table 4: Chi-square test of relationship between Health facility related factors and PFP utilization among Adolescents

Health facility related factors	Utilization of FP		P-value
Availability of FP services			
Yes	37(31.6)	39(33.3)	0.444
No	23(19.7)	18(15.4)	
Accessibility of FP services			
Yes	40(33.9)	36(30.5)	0.784
No	21(17.8)	21(17.8)	
Visited by Health worker on FP			
Yes	50(42.7)	34(29.1)	0.004
No	10(8.5)	23(19.7)	
Been visited by VHT to discuss FP			
Yes	40(34.2)	39(33.3)	0.839
No	20(17.1)	18(15.4)	
Been told about FP methods at the facility			
Yes	44(37.6)	44(37.6)	0.629
No	16(13.7)	13(11.1)	
Visit the Health facility for FP needs			
Yes	47(40.2)	39(33.3)	0.364
No	14(12.0)	17(14.5)	
Availability of quality FP services			
Yes	60(50.4)	51(42.9)	0.112
No	2(1.7)	6(5.0)	
FP services are always available			
Yes	47(40.2)	39(33.3)	0.364
No	14(12.0)	17(14.5)	
Belief in production of more children			
Yes	60(50.4)	51(42.9)	0.112
No	2(1.7)	6(5.0)	

Source: Primary Data, 2025

The Chi-square test revealed significant associations between health facility-related factors and postpartum family planning (PPFP) utilization among adolescents. Notably, being visited by a health worker on FP significantly influenced utilization (p-value 0.004), with 50 (42.7%) utilizing FP and 34 (29.1%) not. Other factors showed no significant association with PPFP utilization, including availability of FP services (p-value 0.444), accessibility (p-value 0.784), VHT visits (p-value 0.839), knowledge of FP methods at the facility (p-value 0.629), visiting the health facility for FP needs (p-value 0.364), availability of quality FP services (p-value 0.112), and consistent availability of FP services (p-value 0.364). However, belief in producing more children showed no significant association (p-value 0.112), highlighting potential cultural or societal influences on FP utilization.

Table 5: Multivariate Analysis of the factors associated with utilization of Family planning

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B
	B	Std. Error	Beta			Lower Bound
(Constant)	1.916	1.084		1.768	0.083	-0.262
Discussion with Partner	0.349	0.108	0.348	3.220	0.002	0.131
FP Method Used	0.359	0.111	0.355	3.229	0.002	0.136
Visited by Health Worker	0.344	0.143	0.299	2.407	0.020	0.057

The multivariate analysis examines the factors influencing the utilization of postpartum family planning services among adolescent mothers. Among the independent variables analyzed, **discussing family planning with a partner** ($B = 0.349, p = 0.002$) and the **type of contraceptive method used** ($B = 0.359, p = 0.002$) were statistically significant predictors of family planning utilization. These results indicate that adolescent mothers who engage in discussions with their partners and those who select appropriate contraceptive methods are more likely to utilize postpartum family planning services.

Similarly, **being visited by a health worker** ($B = 0.344, p = 0.020$) was significantly associated with higher utilization of family planning. This finding suggests that direct interactions and counseling by healthcare professionals positively influence the uptake of postpartum family planning services among adolescent mothers.

CHAPTER FIVE

DISCUSSIONS

5.0 Introduction

This chapter presents the discussion of results according to specific objectives and in contrast with other findings from other scholars on the factors associated with PPFPP among adolescent mothers.

5.1 Discussion

5.1.1 Individual factors associated with PPFPP utilization among Postpartum adolescent mothers at Mubende Regional Referral Hospital

The findings from this study demonstrate that while a significant proportion of adolescent mothers (74.8%) had knowledge about family planning (FP) methods, only 52.9% reported actual use primarily injectables (52%) and contraceptive implants (13%). This knowledge-practice gap is consistent with previous studies such as Gbagbo and Nkrumah (2019), who highlighted a similar pattern in Ghana where high awareness did not always translate into practice due to accessibility issues and social stigma. Comparable findings by Mutombo et al. (2014) in Kenya also pointed to misinformation and distrust in health systems as barriers to FP uptake despite awareness.

From the multivariate analysis in this study, discussion with a partner ($B = 0.349$, $p = 0.002$) emerged as one of the most significant predictors of FP utilization. This aligns strongly with Ndiritu (2021) and Muyama et al. (2020), who found that spousal or partner communication and joint decision-making greatly influenced FP behavior among adolescents and young mothers. In our study, 70.7% of adolescent mothers reported making independent FP decisions, but it was those who had discussions with their partners who were significantly more likely to adopt FP, highlighting the added value of mutual understanding and shared decision-making.

The type of family planning method used was also significantly associated with PPFPP uptake ($B = 0.359$, $p = 0.002$). This could suggest that adolescent mothers who are exposed to a variety of options or who find a method that suits their lifestyle and comfort are more likely to adopt and continue using FP. Nakaggwa et al. (2023) emphasized that education plays a crucial role here educated women tend to better understand and accept modern methods. While education level was not statistically significant in the multivariate model ($p = 0.110$),

its influence on knowledge and positive attitudes toward FP likely still plays a background role, especially in combination with other enabling factors.

The third significant factor was being visited by a health worker ($B = 0.344$, $p = 0.020$), suggesting that personal interaction with healthcare providers greatly boosts the chances of FP uptake. This finding mirrors studies by Reed et al. (2016) and Wegs et al. (2016), who emphasized the importance of health outreach, counseling, and education in influencing women's contraceptive choices. Health worker visits not only deliver essential information but also address fears and misconceptions like fear of side effects, which was cited by some respondents and has been widely reported in literature as a barrier to FP (Nakaggwa et al., 2023; Muyama et al., 2020).

Other factors like age, religion, marital status, education, and previous delivery age, although not statistically significant in the final model, were explored in this study and have been widely documented in the literature as influential in shaping adolescent FP behavior. For example, religion can either support or hinder FP adoption depending on the doctrinal position, as noted by Ochako et al. (2017) and Muyama et al. (2020). Education also appears to build the foundation for improved FP understanding, even if it didn't show strong significance in the multivariate results.

5.1.2 Community related factors associated with PFP utilization among adolescent mothers at Mubende Regional Referral Hospital

The study findings revealed that community support plays a significant role in postpartum family planning (PFP) utilization among adolescent mothers, with 84.6% of respondents reporting community encouragement for family planning (FP). Although the Chi-square analysis did not show a statistically significant relationship (p -value = 0.475), the positive influence of community support is well-documented in the literature. For example, Wegs et al. (2016) noted that women who experience strong community backing are more likely to adopt FP methods due to reduced stigma and increased confidence in contraceptive use. However, societal criticism of contraception, as observed by Wegs et al., can discourage FP adoption, highlighting the nuanced role community norms play.

Support from religious leaders was cited by 77.1% of respondents, with a significant association observed (p -value = 0.029). The influence of religious leaders on FP utilization is critical because they shape norms, beliefs, and behaviors in many communities. Silumbwe et

al. (2018) found that religious views could either encourage or hinder FP usage. The endorsement of FP by religious leaders helps dismantle stigma and align FP with community values, facilitating greater acceptance among adolescents.

The data showed varying influences in decision-making, with 52.6% of respondents indicating that their husbands made FP-related decisions, while 64.7% claimed autonomy. The Chi-square analysis found no statistically significant association with FP utilization (p-values = 0.194 for husband's influence and 0.099 for personal decision-making), but decision-making autonomy remains a critical factor. Studies like Withers et al. (2015) demonstrated that men's dominance over FP decisions could inhibit women's use, often fueled by traditional gender roles and beliefs about FP's side effects. Conversely, autonomy enhances FP uptake, as supported by findings from Silumbwe et al. (2018).

Approximately 63.9% of respondents acknowledged peer or community influence on their FP decisions, though no significant statistical association was found (p-value = 0.586). Social norms and peer influence can either support or deter FP use, depending on the prevalent beliefs and misinformation circulating within communities. Gueye et al. (2015) documented that community misconceptions about FP such as associations with infertility or adverse health outcomes negatively impacted utilization. Addressing these beliefs through community-level education and peer influence could foster a supportive environment for FP adoption.

Community beliefs, including the perception that more children equate to a greater social status, were held by 69.3% of respondents. These norms reflect deeply ingrained cultural values and significantly shape FP decisions, as found by Silumbwe et al. (2018) and Withers et al. (2015). However, there was no significant association between these beliefs and FP utilization (p-values = 0.310 and 0.939, respectively). Such findings emphasize the complexity of changing social norms; even when individuals support FP, they may still conform to traditional expectations regarding family size.

The availability of women's groups promoting FP (reported by 74.8% of respondents) is a critical facilitator for FP utilization, providing a platform for education, peer support, and advocacy. While the statistical analysis did not indicate a significant association (p-value = 0.631), Koffi et al. (2018) found that community-driven initiatives, such as women's groups,

effectively disseminate FP information and address misconceptions, leading to more widespread FP acceptance.

5.1.3 Health facility related factors associated with PPFp utilization among adolescent mothers at Mubende Regional Referral Hospital

Health facility–related factors play a critical role in shaping the utilization of postpartum family planning (PPFP) among adolescent mothers. In this study, one of the key findings from the multivariate analysis was the statistically significant relationship between being visited by a health worker and the utilization of PPFp ($B = 0.344$, $p = 0.020$). Adolescents often face barriers such as fear of judgment, lack of privacy, or misinformation, which are better addressed through home visits or interpersonal counseling outside the formal facility setting. Health workers act as trusted sources of information and can help demystify family planning, reassure adolescents, and encourage uptake in a supportive and non-threatening environment. Similar observations have been made by scholars such as Wegs et al. (2016) and Reed et al. (2016), who emphasized the positive impact of health worker interactions on increasing contraceptive adoption, particularly in underserved or rural areas.

Although leadership support within health facilities was not found to have a statistically significant association with PPFp utilization in this study ($p = 0.618$), it remains a relevant aspect of the overall service environment. A significant proportion of respondents (70.6%) acknowledged that health facility leaders promoted family planning. This suggests a generally favorable institutional attitude towards reproductive health services. However, the absence of statistical significance may reflect a disconnect between supportive leadership and the actual experiences of adolescent mothers during service delivery. As highlighted by Silumbwe et al. (2018), leadership encouragement alone is not sufficient unless accompanied by systemic improvements in service quality, confidentiality, and respect for adolescents' unique needs. Therefore, the presence of supportive leadership should be leveraged to influence policy changes and service restructuring within health facilities to ensure adolescent-friendly and responsive care.

Furthermore, the availability and use of specific family planning methods emerged as a significant predictor of utilization ($B = 0.359$, $p = 0.002$), emphasizing the importance of method mix and access. Adolescents who had access to suitable contraceptive options and received appropriate counseling were more likely to initiate and continue family planning. This indicates that not only must health facilities stock a wide variety of modern methods, but they must also ensure that health workers are equipped with the skills to provide clear, age-

appropriate information. Counseling plays a key role in dispelling myths, addressing concerns about side effects, and guiding method choice according to the adolescent's lifestyle and reproductive goals. Studies such as those by Prata et al. (2016) and Nakaggwa et al. (2023) affirm that when adolescents are offered comprehensive and tailored counseling alongside access to multiple contraceptive options, their likelihood of utilizing FP services significantly increases.

CHAPTER SIX: CONCLUSION AND RECOMMENDATIONS

6.1 Conclusion

The study concludes that discussion with a partner is a significant individual factor influencing the utilization of postpartum family planning (PPFP) among adolescent mothers. According to my experience discussion about contraceptive with partners provides opportunities for partners to share knowledge, address misconceptions, and build mutual understanding between couple leading to greater uptake hence reducing unplanned pregnancies. Similarly, when couples don't discuss family planning or when one partner is unsupportive it can lead to unplanned pregnancies and reluctance to use contraceptives.

Among the community-level influences, the type of family planning method used emerged as a key factor. According to my experience as senior midwife, wide range of FP methods is crucial, adolescent mothers are more likely to use a method if its available and has ever used and if they have access to methods they prefer and perceives as suitable for their needs, this is coupled with quality of family planning services including, counselling, confidentiality, and overall experiences, influences uptake.

The study also found that being visited by a health worker, significantly increases the likelihood of PPFP utilization by adolescent mothers. According to my experience as a senior midwife, it's important that adolescent mothers are visited, as the visits offers opportunities for counselling, education, addressing barriers, empowering adolescent mothers to make informed decisions and access to contraceptive services, leading to increased awareness and uptake of PPFP methods, similarly, early exposure to pregnancy related services like, ANC and PNC can increase the likelihood of using modern contraceptives by adolescents mothers during their postpartum period hence reducing inter pregnancy intervals and complications attributed to repeated child birth by adolescent mothers.

6.2 Recommendations

Based on the study findings and grounded in professional experience in reproductive health, the following recommendations are made to enhance postpartum family planning (PPFP) utilization among adolescent mothers:

Promote Partner Communication on Family Planning. The Ministry of Health and implementing partners should prioritize interventions that encourage open dialogue between adolescent mothers and their partners regarding family planning. Couple-focused counseling sessions should be integrated into routine antenatal and postnatal care. Engaging male partners through targeted outreach and educational sessions can improve shared decision-making and reduce misconceptions around contraceptive use.

Ensure Consistent Availability and Accessibility of a Variety of Family Planning Methods. Health facilities, especially those serving adolescent populations, must stock a wide range of contraceptive options and provide clear, adolescent-friendly information on each method. Emphasis should be placed on method choice, convenience, side effects, and effectiveness. Special attention must be paid to ensuring privacy, confidentiality, and respect during service provision, as these are critical for adolescent acceptance and trust in the health system.

Strengthen Home-Based Visits and Continuity of Care through Community Health Workers. Village Health Teams (VHTs) and community health workers should be empowered and supported to conduct regular home visits targeting adolescent mothers. These visits should include PFP counseling, health education, and linkage to appropriate services. Early and sustained engagement, particularly during antenatal and postnatal periods, helps address barriers, build trust, and improve informed decision-making about contraceptive use.

Integrate Youth-Friendly Training into Health Worker Capacity Building: Health care providers should undergo regular training focused on adolescent-responsive care, emphasizing communication skills, nonjudgmental attitudes, and cultural sensitivity. Facility-based mentorship programs can support ongoing professional development and ensure that providers are equipped to meet the unique needs of adolescent mothers.

Utilize Community Platforms to Support Adolescent Family Planning: Engage local leaders, peer educators, youth clubs, and schools to disseminate accurate and age-appropriate information about family planning. Community-based dialogue sessions involving adolescents and their partners can reduce stigma, address myths, and foster supportive environments for contraceptive use. Tailored community messaging should reinforce the benefits of spacing pregnancies and the safety of modern contraceptive methods.

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Appendices

Appendix I: Consent Form

I **Atenga Rosamond** student offering Master of Public Health Leadership save the mothers of Uganda Christian University; I am conducting research to assess factors associated with utilization of postpartum family planning by adolescent mothers at Mubende Regional Referral Hospital so that appropriate interventions can be taken by responsible stake holders and its part of my requirement for the award of Master of Public Health Leadership save the mothers.

I humbly request you to participate in this study as a respondent by answering the question on the questionnaire. Your participation is completely voluntary, and refusal will not affect you in any way. Confidentiality and privacy will be maintained by not reflecting your name on the data collection tool and taking the interview from a private room.

Thank you for your participation.

Researcher's Signature..... Date.....

I have been fully explained to the purpose and benefits of this research and hereby agree and consent to participate in the study.

Respondents' initialsSignature..... Date.....

Appendix II: Questionnaire guide for respondents

Introduction:

I **Atenga Rosamond** student offering Master of Public Health Leadership save the mothers of Uganda Christian University; I am conducting research to assess factors associated with utilization of postpartum family planning by adolescent mothers at Mubende Regional Referral Hospital so that appropriate interventions can be taken by responsible stake holders and its part of my requirement for the award of master of public health leadership save the mothers.

You have been identified as a potential participant in this study and I will regard the information you will give as very important and will be kept confidential.

This research is absolutely for academic purposes and all responses obtained from you shall be treated with maximum confidentiality. You should not include your name or initials and you are free to participate and you may withdraw at any point in time if you wish to do so.

Instructions:

You are requested to answer the questions by ticking in the appropriate box where options are given.

Code..... Date.....

Time started..... Time ended.....

Section A: Socio-demographic characteristics of the study participants

		Tick/fill where it applies to you
1.	How old are you currently?
2.	Age at which you delivered your first baby	
	a. 13	
	b. 14	
	c. 15	
	d. 16	
	e. 17	

	f. 18 g. 19	
3.	What is your religion?	
	a. No Religion	
	b. Christian	
	c. Muslim	
4.	What is your marital Status?	
	a. Single/Not in union	
	b. Married/Cohabiting	
5.	What is your education level?	
	a. No Formal	
	b. Primary	
	c. Secondary	
6.	What do you do to earn a living?	
	a. None	
	b. Labourer	
	c. Business	
	d. Farming	
7	Residence	
	a. Rural	
	b. Urban	

Section B: Individual factors associated with utilization of postpartum family planning by adolescent mothers (tick best option)

1. Do you have better knowledge on family planning services?	a. Yes b. No
2. Are you currently using a FP method?	a. Yes b. No
3. If yes in 1, What FP method are you currently using?	a. Pills b. Condoms c. Injectable d. Contraceptive Implant e. Lactation Amenorrhea

	<p>Method (LAM)</p> <p>f. Calendar Days Method</p> <p>g. Withdrawal</p>
4. Who decides you should use FP methods?	
	<p>a. My self</p> <p>b. My husband</p> <p>c. Community</p>
5. If husband, do you discuss about contraceptives as couple?	<p>a. Yes</p> <p>b. No</p>
6. Have you ever used FP method (Previous FP use)?	<p>a. Yes</p> <p>b. No got to reasons</p>
7. What type of FP did you use?	<p>a. Contraceptive Implant</p> <p>b. Pills</p> <p>c. Injectable</p> <p>d. Condoms</p> <p>e. Withdrawal</p> <p>f. IUD</p>
8. Are you intending to go back to school?	<p>a. Yes</p> <p>b. No</p>

Section B: Community and Personal Beliefs Related to Family Planning (FP)

1. **My community supports the use of FP (Family Planning).**
 - i. Yes
 - ii. No (If no, please provide reasons:)
2. **Our political, religious, or community leaders talk favorably about FP.**
 - i. Yes
 - ii. No
3. **It's my husband's decision on whether or not to use FP.**
 - i. Yes
 - ii. No
4. **It's my decision whether to use contraception or not.**
 - i. Yes
 - ii. No
5. **It's my community's decision whether to use contraception or not.**
 - i. Yes
 - ii. No
6. **I have influence from community/peers on FP.**
 - i. Yes
 - ii. No
7. **My community has different beliefs on FP.**
 - i. Yes
 - ii. No
8. **My community believes in producing more children.**
 - i. Yes
 - ii. No
9. **Women groups through which information on FP is shared are available.**
 - i. Yes
 - ii. No

Section C: Health Facility-Related Factors Associated with Utilization of Postpartum Family Planning by Adolescent Mothers

1. **Availability of female community workers.**
 - i. Yes
 - ii. No

2. **FP services are easily accessible.**
 - i. Yes
 - ii. No
3. **I have been visited by health workers to discuss FP.**
 - i. Yes
 - ii. No
4. **I have been visited by VHT (Village Health Team) to discuss FP.**
 - i. Yes
 - ii. No
5. **I was told about FP methods at the facility.**
 - i. Yes
 - ii. No
6. **I always visit the health facility for FP needs.**
 - i. Yes
 - ii. No
7. **We have quality, accessible, and affordable FP methods.**
 - i. Yes
 - ii. No
8. **FP services are always available.**
 - i. Yes
 - ii. No
9. **I have heard of awareness campaigns on FP.**
 - i. Yes
 - ii. No

End

Thank you for your response

Appendix III: Key informant Guide (Health workers)

Introduction

Thank you for participating in this study. I am interested in understanding the factors that influence the utilization of postpartum family planning among adolescent mothers at Mubende Regional Referral Hospital. Your experiences and insights as a health worker will provide valuable information to inform strategies to improve postpartum family planning services.

Section A: Demographic Characteristics

1. You can begin by introducing yourself (Probe Age, Position, education)

Section B: Individual Factors

2. What do you think motivates adolescent mothers to use postpartum family planning services?
3. What barriers do adolescent mothers face in accessing postpartum family planning services?
4. How do you think adolescent mothers' knowledge and attitudes towards family planning influence their uptake of postpartum family planning services?

Section C: Health Facility-Related Factors

5. What family planning services are available to adolescent mothers at the hospital?
6. How accessible are these services to adolescent mothers? (e.g., location, hours of operation, cost)
7. How would you describe the quality of care provided to adolescent mothers for postpartum family planning services?

Section D: Community Factors

8. How do community beliefs and norms around family planning influence adolescent mothers' decisions to use postpartum family planning services?
9. Are there any community-led initiatives or groups that support or discourage the use of postpartum family planning among adolescent mothers?
10. How do political, religious, or community leaders in this area view and talk about family planning, and how does this impact adolescent mothers' utilization of postpartum family planning services?

11. Have there been any recent changes in community attitudes towards family planning, especially for young or adolescent mothers? If yes, please describe them.

Section C: Additional Insights

8. Are there any challenges you face as a health worker in providing postpartum family planning services to adolescent mothers?
9. What strategies do you think would improve the uptake of postpartum family planning services among adolescent mothers?

END

Appendix IV: Research Budget

ITEM	QUANTITY	UNIT COST	TOTAL COST
Stationary			
• Plain papers	2 Reams	15,000/=	30,000/=
• Pens	1 dozen	5,000/=	5,000/=
• File folder	1	3000/=	3000/=
• Notebook	1	5,000/=	5,000/=
Sub total			43,000/=
Secretarial			
• Typing proposal	60pages	800 @ page	48,000/=
• Printing proposal	100pages	500@ page	50,000/=
• Printing final copy of proposal	3 copies	500@ page	150,000/=
• Binding proposal	3	8000 @ copy	24,000/=
• Photocopying questionnaires	80 questionnaires	500@ copy	100,000/=
• Typing report	30 pages	1000@ page	30,000/=
• Printing report	150	500@ page	75,000/=
• Printing final copy of report	4 copies	500@ page	150,000/=
• Flash disk	8 GB	70,000/=	70,000/=
• Binding Report	4 copies	30,000/=	120,000/=
Sub total			817,000
Others			
• Transport	2 days	50000/=	100,000/=
• Meals	10 days	10,000/=	100,000/=
• Airtime			100,000/=
Grand Total			1,160,000/=

Appendix V: Work Plan

S / N	Activities	2024											2025					Responsible persons	
		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR		MAY
1.	Topic selection																		Researcher
2.	Approval of the topic and literature search																		Research committee
3.	Proposal writing																		Researcher/supervisor
4.	Proposal Defending																		Researcher
5.	Data collection																		Researcher/research assistant
6.	Report writing																		Researcher/supervisor
7.	Research report Marking & approval																		Researcher
8.	Final report Submission																		Research committee
9.	Dissemination																		Researcher

Appendix VII: Sample size determination table by Kregcie and Morgan (1970)

Table 3.1									
<i>Table for Determining Sample Size of a Known Population</i>									
N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	346
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	354
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	191	1200	291	6000	361
45	40	170	118	400	196	1300	297	7000	364
50	44	180	123	420	201	1400	302	8000	367
55	48	190	127	440	205	1500	306	9000	368
60	52	200	132	460	210	1600	310	10000	370
65	56	210	136	480	214	1700	313	15000	375
70	59	220	140	500	217	1800	317	20000	377
75	63	230	144	550	226	1900	320	30000	379
80	66	240	148	600	234	2000	322	40000	380
85	70	250	152	650	242	2200	327	50000	381
90	73	260	155	700	248	2400	331	75000	382
95	76	270	159	750	254	2600	335	1000000	384
<i>Note: N is Population Size; S is Sample Size</i>					<i>Source: Kregcie & Morgan, 1970</i>				

Appendix VIII: Approval Letter from REC



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UNIVERSITY**

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Office of the Vice Chancellor
Research Ethics Committee UG-026

ROSAMOND ATENGA
Uganda Christian University
+256 774460966
Email: rosamondatenga@gmail.com



17th January, 2025

UG-REC-026 APPROVAL NOTICE

To: Rosamond Atenga, Principal Investigator

Re: UCU-REC Application titled: *Utilization of Postpartum Family Planning and Its Associated Factors among Adolescent Mothers at Mubende Regional Referral Hospital, Mubende District.*

Application Number: UCUREC-2024-1132

Version: 4.1

Type: INITIAL REVIEW
 Protocol Amendment
 Letter of Amendment (Loa)
 Continuing Review
 Material Transfer Agreement
 Other, Specify:



I am pleased to inform you that the UG-REC-026; UCUREC approved the above referenced application.

Approval of the research is for the period from 17th January, 2025, to 17th January, 2026

This research is considered minimal risk category.

As Principal Investigator of the research, you are responsible for fulfilling the following requirements of approval:

1. All co-investigators must be kept informed of the status of the research.
2. Changes, amendments, and additions to the protocol or the consent form must be submitted to the REC for re-review and approval prior to the activation of the changes. The REC application number assigned to the research should be cited in any correspondence.

1 of 2

Research and Ethics

P.O. Box 4, Mukono, Uganda, Plot 67-173, Bishop Tucker Road, Mukono Hill
Tel: +256 (0) 312 350 885 Fax: +256 (0) 4142 90 800 Email: rec@ucu.ac.ug Web: www.ucu.ac.ug
UCUREC is accredited by Uganda National Council for Science & Technology, FDA, and National Institutes for Health of the United States of America



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Research Ethics Committee UG-026



3. Reports of unanticipated problems involving risks to participants or other must be submitted to the REC. New information that becomes available which could change the risk: benefit ratio must be submitted promptly for REC review.
4. Only approved consent forms are to be used in the enrollment of participants. All consent forms signed by subjects and/or witnesses should be retained on file. The REC may conduct audits of all study records, and consent documentation may be part of such audits.
5. Regulations require review of an approved study not less than once per 12-month period. Therefore, a continuing review application must be submitted to the REC eight weeks prior to the above expiration date of 17th January, 2026 in order to continue the study beyond the approved period. Failure to submit a continuing review application in a timely fashion may result in suspension or termination of the study, at which point new participants may not be enrolled and currently enrolled participants must be taken off the study.
6. The REC application number assigned to the research should be cited in any correspondence with the REC of record.
7. Your research details have been shared with the Executive secretary of Uganda National Council for Science and Technology (UNCST) and you are not required to get clearance since you are a Master's Degree research. Refer to UNCST Research registration and clearance Policy and guidelines (July 2016) in Uganda section 6(e).

The following is the list of all documents approved in this application by UG-REC _026:

	Document Title	Language	Version	Version Date
1.	Protocol	English	1.0	2024-11-19
2	Questionnaire	English	1.0	2024-11-19
3	Interview Guide	English	1.0	2024-11-19
4	Informed Consent form	English	1.0	2024-11-19

Signed and Stamped

Prof. Peter Waiswa.
UCUREC Chairperson,
pwaiswa@musph.ac.ug



2 of 2

Research and Ethics

Appendix IX: Approval Letter from Mubende Hospital



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Dr. Batiibwe Emmanuel Paul
The Hospital Director
Mubende Referral Hospital
P.O BOX, 4
Mubende

*Authorized
Batiibwe E*

20th January, 2025



Dear Dr. Batiibwe,

RE: REQUEST FOR PERMISSION TO CONDUCT RESEARCH AT MUBENDE REGIONAL REFERRAL HOSPITAL

Greetings from Uganda Christian University!

This is to introduce to you Rosamond Atenga (Reg. No. RM22M07/009) who is doing her research study for the award of the degree in Master of Public Health, Leadership (Save the Mothers) at Uganda Christian University.

The student's topic is *"Factors associated with Utilization of Post- Partum Family Planning Among Adolescent Mothers at Mubende Regional Referral Hospital"*

Any assistance given to her will be highly appreciated.

Thanking you for your cooperation

Yours Sincerely,

Ayebare Andrew
Assistant Academic Registrar, Faculty of Public Health, Nursing & Midwifery
Uganda Christian University



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SCHOOL OF RESEARCH & POSTGRADUATE STUDIES

DISSERTATION CORRECTION COMPLIANCE REPORT BY THE CANDIDATE (POST VIVA FORM)

Date: 03/07/2025

Name of Candidate: **ATENGA ROSAMOND** Reg. No: RM22M07/009

Title of Dissertation: **FACTORS ASSOCIATED WITH UTILISATION OF POSTPARTUM FAMILY PLANNING AMONG ADOLESCENT MOTHERS AT MUBENDE REGIONAL REFERRAL HOSPITAL, MUBENDE DISTRICT**

COMMENTS BY EXTERNAL EXAMINER

SN	COMMENTS BY EXTERNAL EXAMINER	page	ACTION TAKEN	INDICATOR
1	Typos: There are a few typos.	Cover page i-xi 1-56	Typos and grammatical errors throughout the dissertation have been corrected.	Clean and proofread text
2	The study justification is weak; needs to be strengthened.	4	The justification section has been revised to clearly articulate the knowledge gaps, the public health significance, and contribution to policy and practice specific to Mubende District.	Revised justification section
3	Gap in literature review: policy on male involvement in FP missing.	7	Relevant literature on national and regional policies promoting male involvement in family	Enriched literature review

			planning has been added under section 2.1 Individual Factors.	
4	Inappropriate transitioning from one point to another.	6-12	Transition sentences have been inserted to improve the logical flow between paragraphs and sections.	Improved flow and coherence
5	Contradictory statements on rural residence and PFP uptake.	6 and 12	The contradiction has been resolved by aligning the findings with the most credible source and clarifying the contextual differences.	Consistent and accurate statements
6	Inadequate description of the cross-sectional study design.	13	Section 3.1 rewritten to define cross-sectional design, rationale for its choice, and advantages.	Revised methodology section
7	Contradictory statements on age group in Study Area and Inclusion Criteria.	13-14	Corrected to consistently state the age range as 13–19 years throughout the document.	Consistent age group definition
8	Questionnaire translation not addressed.	16	Clarified that the questionnaire was translated into Luganda by a trained research assistant.	Clear explanation about translation process
9	Justification for sample size estimation method unclear.	14	Justification for using Krejcie & Morgan table explained as appropriate for finite population (N=184).	Clear explanation of sample size method
10	Whether dependent variable considered in sample size estimation unclear.	14-15	Clarified that sample size estimation was based on estimating proportion of PFP utilization.	Clarified basis of sample size
11	Target population figure (184) not explained.	14	Added explanation that the figure represents the expected number of postpartum adolescent mothers attending PNC clinic in a month, per hospital records.	Target population defined
12	Number of health workers interviewed not stated.	14	Number of health workers interviewed (n=6) added to methods and results.	Stated number of key informants
13	Inadequate description of convenience sampling.	14-15	Section 3.5 rewritten to describe step-by-step recruitment process and rationale.	Detailed sampling procedure

14	Contradictory statements on sampling technique (non-probability vs. random).	13-14	Corrected to reflect that convenience sampling was used exclusively, not random sampling.	Resolved inconsistency
15	Poor wording about illiterate participants being “translated.”	16	Sentence revised to correctly state that responses from illiterate participants were verbally administered in local language.	Clear and appropriate wording
16	Non-response not addressed.	14,15,16	Clarified that all approached participants consented, hence no non-response (100% response rate).	Non-response explanation added
17	Non-participation consideration not addressed.	14,15,16	Statement added to note that participants were free to decline without consequences.	Non-participation consideration added
18	Missing approval letter from Mubende Hospital.	16-17	Clarified that hospital authorization was indicated on UCUREC approval letter through signature and stamp; note added in appendix.	Clarified and documented approval
19	Missing data in tables.	20-26	Tables reviewed, corrected totals, and added notes to explain any missing responses due to skipped questions.	Corrected tables
20	Calculation of percentages hard to interpret.	20-26	Percentages recalculated and presented in clearer tables following recommended format (Salem et al., 2017).	Improved data presentation
21	Selection process for multivariate model not described.	28	Selection process for independent variables in multivariate analysis described; only significant variables at bivariate level retained.	Corrected multivariate analysis
22	Inclusion of non-significant variables in multivariate analysis.	28	Removed non-significant variables from multivariate model.	Revised multivariate analysis

COMMENTS BY INTERNAL EXAMINER

SN	COMMENTS BY INTERNAL EXAMINER	Page	ACTION TAKEN	INDICATOR
1	Problem Statement: Sentence not logically flowing; consider deleting/paraphrasing.	3	Problem statement revised for logical flow and clarity. Redundant or unclear sentences removed.	Improved, concise problem statement
2	Purpose of the study: Better to first determine level of utilization then examine associated factors.	3	Purpose clarified to include determining the level of utilization as a primary step before examining associated factors.	Revised purpose of study
3	Justification: Weak; Mubende also has limited geographical scope.	4	Justification rewritten to highlight why Mubende was selected despite its limited scope and the need for context-specific findings.	Strengthened justification
4	Significance of the study: Depends on generalizability.	4	Statement on generalizability added to acknowledge findings may be context-specific.	Clarified scope and significance
5	Chapter Two - Residence: Paradoxical finding.	6 -12	Literature review updated to reconcile Nakaggwa et al. findings with general observations and offer possible explanations.	Enhanced literature discussion
6	Decision on FP: Missing policy on male involvement.	7-8	Added relevant literature on policies promoting male involvement in FP.	Enriched literature review
7	Family planning Knowledge: Poor logical flow.	6-12	Transitions improved for clarity and logical progression.	Improved narrative flow
8	Side effects: Poor logical flow.	9	Section rewritten to ensure smooth transition between points.	Clear, logically flowing section
9	Summary of literature and gap: Contradicts earlier statement.	6-12	Contradictory statements resolved	Consistent statements

			and aligned with credible findings.	
10	Study Design: Inadequate description of cross-sectional design.	13	Section 3.1 rewritten to first describe the cross-sectional design, then justify its choice and advantages.	Revised methodology
11	Sample size determination: Justification and details unclear.	14-15	Justification for Krejcie & Morgan table added; target population (184) explained as monthly postpartum adolescents per hospital records; dependent variable clarified as basis.	Detailed and justified sample size
12	Sampling Method: Inadequately described.	14-15	Detailed step-by-step recruitment process added, including number of adolescents approached.	Detailed sampling procedure
13	Study variables: Specific factors missing.	15	Specific variables from conceptual framework explicitly listed.	Clear variable listing
14	Data collection procedures: Poor wording on illiterate participants.	15-16	Statement revised to indicate data was verbally administered to illiterate participants in local language.	Appropriate, clear wording
15	Research Instruments: Translation unclear; duplication noted.	16	A volunteer research assistant was got who would verbally translate from English to luganda.	Clear, consistent instrument section
16	Key informant guide: Is it a guide or questionnaire?	16	Clarified it was a Key Informant Interview Guide, not a questionnaire.	Accurate terminology
17	Fonts: Inconsistent fonts and sizes.	i-xi 1-56	Fonts and sizes standardized throughout the document.	Uniform formatting
18	Dissemination of results: Plan to present to hospital and district?	18	No plan to carry out presentation to the management,	Dissemination plan excluded

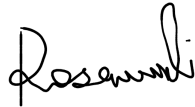
			However, upon request dissemination of findings to Mubende Hospital and district health management team can be organized as per their policy study need.	
19	Socio-demographic respondents: Missing religion of 2 participants.	20	Be notified that there were 115 Christians and 8 Muslims to making total of 123	Complete demographic table
20	Multivariate analysis: Method and selection process unclear; inclusion of non-significant variables inappropriate.	28	Multivariate analysis model specified; selection process described; only significant variables retained in final model.	Corrected and appropriate analysis

COMMENTS BY VIVA VOCE PANEL

SN	COMMENTS BY VIVA VOCE PANEL	Page	ACTION TAKEN	INDICATOR
1	Theoretical framework vs. conceptual framework: Difference not clear. Theoretical framework should be based on an already tested theory.	1-12	Section revised to define and differentiate conceptual and theoretical frameworks. Theoretical framework now explicitly tied to a relevant tested health behavior theory (e.g., Health Belief Model).	Clear distinction and use of theoretical framework
2	Cross-sectional vs. longitudinal: Concepts unclear and poorly explained.	13	Section 3.1 revised to clearly describe cross-sectional design, contrast it with longitudinal design, and justify its choice for this study.	Correct explanation of design
3	Convenience sampling and its effect on validity: Not explained.	13-14	Section 3.5 expanded to explain what convenience sampling is and its limitations regarding representativeness and internal validity.	Defined convenience sampling and implications
4	Disadvantages of convenience sampling: Not highlighted.	13-14	Limitations section updated to include discussion of potential biases and reduced generalizability due to convenience sampling.	Disadvantages discussed
5	Educational level of participants: Effect on findings unclear.	20	Socio-demographic results table and discussion updated to highlight the participants' education levels and how these influenced PFP utilization, supported by literature.	Education level findings discussed
6	Dissemination of findings and publication: No mention of intent to publish.	18	Dissemination plan expanded to include intent to publish findings in a peer-reviewed journal.	Plan for publication added

7	Mixed methods: Title/methods/results should reflect both qualitative and quantitative aspects.	13	Title and methodology section updated to explicitly state mixed-method approach; qualitative themes presented in results and discussed.	Mixed-method presentation improved
8	Focus only on quantitative and qualitative: Needs balance.	13	Balanced presentation of both quantitative results (tables, stats) and qualitative themes (quotes, narratives) added to results and discussion chapters.	Balanced results presentation
9	Definition of utilization of family planning: Not clear in results and proportion unclear.	x	Definition of PFP utilization added to methodology and results chapter updated to present clear proportion of utilization among participants.	PFP utilization clearly defined and reported
10	Qualitative study underutilized: Recommendation to make it purely quantitative.	13	Study revised to remove unsupported qualitative claims and fully adopt quantitative study, with appropriate changes in methodology and discussion.	Changed to purely quantitative study
11	Results for dependent variable missing: Why utilization not measured?	21	Results chapter revised to include utilization of PFP as dependent variable, clearly reported in descriptive and inferential analysis.	Dependent variable results presented
12	Study population unclear: Ages inconsistent and not clearly presented.	14-15	Study population consistently defined as adolescent mothers aged 13–19 years; this is reflected in methodology, results, and discussion.	Consistent study population defined
13	Qualitative results missing despite claiming mixed methods: Gap.	13-18	Removed unsupported claims of qualitative analysis since no qualitative data was collected. Study presented as purely quantitative.	Gap corrected; methodology aligned with data

14	Limitations of the study: Not presented.	18	Limitations section added, addressing sampling method, possible biases, generalizability, and self-reported data limitations.	Limitations clearly stated
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ATENGA ROSAMOND

Candidate's Name & Signature



MS JACQUELINE KOBUSINGYE

Supervisor's Name & Signature