KIBOGORA POLYTECHNIC

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DEPARTMENT OF GENERAL NURSING

ASSESSMENT OF FACTORS INFLUENCING POOR USE OF ANTENATAL CARE ATTENDANCE AMONG TEENAGE MOTHERS AT KIBOGORA HEALTH CENTER IN RWANDA.

undergraduate dissertation presented in partial fulfilment of the requirement for the bachelor's degree with honor in general nursing with health sciences

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DECLARATION

Declaration by the candidate

We, DAKO Darius Salus and MWIZERWA Gedeon hereby declare that, this is our own original work and not a duplication of any similar academic work. It has therefore not been previously or concurrently submitted, diploma or other qualification to kibogora polytechnic or any other institution. All materials cited in this paper which are not our own have been duly acknowledged.

Salus DAKO Darius

Signed…………………………………

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Declaration by the supervisor

I declare that this work has been submitted for examination with my approval as KP Supervisor

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ABSTRACT

This study aimed to assess the factors that hinder the use of antenatal care among teenage mothers at kibogora health center in Rwanda. Specific objectives were:1) To assess the knowledge of the teenage mothers related ANC services mainly at Kibogora health center.2) To assess the Factors that Hinder the attendance of antenatal care among the teenage mothers at Kibogora health center. In Africa same as in other continents the poor use of ANC is still threatening issue where like in south Africa has experienced rapid increase in teenage pregnancy during covid-19 pandemic where a total 58% of the pregnant adolescents had their first ANC visit > 3 months. The study adopted cross sectional study design with quantitative approach. The study includes the target population of 63 teenage mothers and the sample size of 40 against 54 that was calculated. A questionnaire was administered to the respondents to collect data on assessment of factor that hinder the use of antenatal care among teenage mothers at Kibogora health center. The study showed that 55% of teenage had poor partner support, 42.5% did not appreciate the waiting time during antenatal care visits and 57.5% had their recognized partner. A chi-square test was used for analysis of key factors influencing a poor use of antenatal care. Key factors that were associated with antenatal care attendance and use of services included having correct information on benefit of antenatal care (chi-squared=5.469[a], p=0.019), poor partner support (chi-squared=11.831[a], p=0.001) and fear of meeting people while pregnant (chi-squared=9.937[a], p=0.002). there was no association between ANC attendance and travel distance (chi-square=1.205[a], p=0.752), family tolerance (chi-square=0.129[a], p=0.720), and educational level (chi-square=5.047[a], p=0.168). There was no significant association of age, marital status, religion, or residence on antenatal care (p>0.05). All in all, Psychological support, targeted educational program and strengthened partner support is needed to improve ANC attendance.

DEDICATION

To the Almighty God,

To our parents,

To our sisters and brothers,

To our aunts and uncles

To our supervisor

To our classmates and friends.

ACKNOWLEDGEMENT

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LIST OF ABBREVIATION AND ACRONYMS

ANC: antenatal care

HC: health center

HCWs: community health workers

HIV: human immune virus

KM: kilometer

NICHD: national institute of child health and human development

SEM: social ecological model

SPSS: statistical package for the social sciences

WHO: world health organization

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CHAPTER ONE: GENERAL INTRODUCTION

1.0 INTRODUCTION

Antenatal care (ANC) is the care of the woman during pregnancy. The primary aim of ANC is to promote and protect the health of women and their unborn babies during pregnancy so as to achieve at the end of a pregnancy a healthy mother and a healthy baby. This chapter one is concerned with the background of the study, statement of the problem, purpose of the study, research questions, objectives of the study, significance of the study, limitations of the study and the scope of the study.

1.1 BACKGROUND OF STUDY

In resource-limited settings, the use of antenatal care visits among women, especially teenage pregnant women, is disturbingly low((Worku, 2016). Factors that influence the uptake of ANC services among teenage women is largely understudied and poorly understood according to worku. A delay in deciding to seek antenatal care is a predominant problem among pregnant teenagers, this may lead to a delay in reaching treatment and adequate treatment. Early antenatal care attendance plays a major role in detecting and treating a complications of pregnancy so as to manage maternal before and after delivery (Ambaye, 2021). A poor/delay in Antenatal care attendance can results in risk of anaemia, obstructed labour, preterm births, low birth weight, still births and intra uterine death.

health education and concept of contraception might reduce the high risk of teenage mothers and its consequences (Ali, 2011). International studies have shown that early child bearing is the biggest challenge to young people, as it is associated with increased vulnerability to poor health as well as a long-lasting impact on social, livelihood, education, physical, mental health, including risks of maternal death. teenage pregnancy is often not the result of a deliberate choice, but rather the absence of choices which include little or no access to schooling, lack of information that positively influence behavior or quality health services, and lack of empowerment, among others (Worku, 2016). Globally teenage pregnancy and childbirth complications are the leading cause of death among teenage mothers where the evidence showed that 11% of the teenage mothers attend Antenatal care services (Rukundo, 2019). In Africa same as in other continents the poor use of ANC is still threatening issue where like in south Africa has experienced rapid increase in teenage pregnancy during covid-19 pandemic where a total 58% of the pregnant adolescents had their first ANC visit > 3 months.

14.9% did not attend at all. Major contributors to delayed care-seeking include poor pregnancy identification and lack of information about ANC , age , education , and alcohol consumption were significant predictors of poor antenatal care-seeking (Smith, 2024). While the research done in 13 countries of west Africa showed that; west Africa has got high proportion of teenage mothers where 62% of these teenage mothers attended 4 or more ANC visits , whereas 51% of teenage mothers received all antenatal Care components , although a large percentage of west African teen mothers   attend ANC , they seek the care late which may lead to a diverse complications before and after delivery (Owolabi, 2017).

Uganda has one of the highest teenage pregnancy rates in sub-Saharan Africa where 82% of teenage mothers attended ANC for their most recent pregnancy, of these approximately (47%) made the first ANC visit in the first trimester. More than half (55%) of teenage mothers do not know when folic acid intake should begin (Kayemba, 2023). The research done in Ghana shows that 78% of teenage mothers had 4 or more recommended ANC visits, Where low education, living situation, economic status are the factors affecting poor use of ANC services (Osei, 2023). The rate of teenage pregnancy remains unacceptably high in most developing countries. Effective antenatal care services (ANC) present an opportunity to minimize the high risk for poor perinatal outcomes and other birth complications associated with teenage pregnancy. With the failure by Kenya and majority of the Sub Saharan Countries to achieve the Millennium Development Goals (MDG 4 & 5), 91.2% of the teenage mothers attend less than 4 ANC visits. About 54.7% reported late/inappropriate booking time (Mulinge, 2017). The research showed that 49% of all women in Tanzania still deliver at home without any skilled attendant. Moreover, according to the definition of the World Health Organisation (WHO). a quarter of all women in Tanzania begin childbearing as adolescents before reaching the age of 20 years (Gross, 2012).

In Rwanda, studies show a rapid increase over the past two decades despite the political achievements of women's empowerment, and efforts to curtail child sexual abuse. Unfortunately, the current knowledge of the household determinants of teenage pregnancies in Rwanda is limited, as recent studies have focused on providing numbers with little analysis of proximate causal factors or focused on the individual determinants. The study uses secondary data from the recent Rwanda Demographic and Health Survey (RDHS: 2014–2015) to analyses household factors associated with teenage pregnancies in Rwanda (Uwizeye, 2020). increase in teenage- pregnancy rates in Rwanda in recent years is worrisome. The data from NISR indicate that in 2007/2008 to 2014/2015 teenage pregnancy increased from 5.7% to 7.2% of

the teen girls countrywide, and from 14% to nearly 21% among young girls aged 19 (Uwizeye, 2020). There is still a gap in research related ANC attendance among teenage mothers in Rwanda that why our research will focus on assessment of factors influencing poor use of antenatal care attendance among teenage mothers at kibogora health canter in Rwanda.

1.2 PROBLEM STATEMENT

Poor perinatal outcomes are the significant global health burden, where Worldwide each year Approximately 303,000 women and adolescent girls died from pregnancy and childbirth-related complications in 2015.That same year, 2.6 million babies were stillborn. Almost all of the maternal deaths (99%) and child deaths (98%) occurred in low- and middle-income countries (Who, 2018). These maternal deaths could have been prevented if the pregnant women or adolescent girls had been able to access quality antenatal care (Who, 2018).This is mainly caused by poor/delayed use of antenatal care services. Normally mothers who attend all recommended ANC services set by WHO (8 CONTACTS) helps to detect any complications that can arise during pregnancy or labour such as; obstructed labour, preterm births, low birth weight and still births. Proper attendance of ANC will help in early detection of complications so as to be prevented early (Who, 2018). Majority of countries both developed and developing countries they are likely to emphasise on attendance of ANC in older women who are beyond 20 years and forget Teenage mothers.

Specifically, in Rwanda the ANC attendance among teenage mothers is at low level compared to the elder women. the study done in Rutsiro district showed that, travel distance to health facility, coupled with socio-economic constraints, including low education and poverty can make it difficult for teenage mothers to achieve the recommended ANC regimen (Dusingizimana, 2023). In nyamasheke district there is no research done regarding ANC services among teenage mothers that why Our research emphased on assessing factors influencing poor use of antenatal care attendance among teenage mothers at kibogora health center in Nyamasheke District in Rwanda.

1.3 PURPOSE OF THE STUDY

The purpose of this research was to assess the factors influencing antenatal care attendance among teenage mothers at Kibogora health center nyamasheke in Rwanda.

1.4 RESEARCH OBJECTIVES

To explore the factors influencing poor use of antenatal care attendance among teenage mothers at kibogora health center nyamasheke in Rwanda.

1.4.1 SPECIFIC OBJECTIVES

1. To assess the knowledge of teenage mothers regarding ANC services, specifically at Kibogora Health Center in nyamasheke Rwanda.

2. To identify the factors that hinder antenatal care attendance among teenage mothers at Kibogora Health Center in nyamasheke Rwanda.

1.5 RESEARCH QUESTIONS

1. What is the level of knowledge among teenage mothers regarding ANC services at Kibogora Health Center in nyamasheke Rwanda.
2. What are the factors that hinder antenatal care attendance among teenage mothers at Kibogora Health Center in nyamasheke Rwanda.

1.6 SIGNIFICANCE OF STUDY

1.6.1 PERSONAL INTEREST

The researchers will benefit from this study the improvement of the skills and knowledge in terms of ANC services delivery. Additionally, the researcher will gain the new degree in the university level after conducting research.

1.6.2 ACADEMIC INTEREST

The findings of the study will be helpful to other health care professionals, midwives, nurses, community health workers, student nurses and midwives at kibogora health center and the future researchers.

1.6.3 SCIENTIFIC INTEREST

This study will help health care professionals to recognize how the ANC services are delivered the level at which is delivered, and the factors that hinder the ANC delivery and then decide where to put more efforts mainly at kibogora health center.

1.7. LIMITATION OF THE STUDY

Some of the limitations faced during the research was that: difficult in finding the teenage mothers consulting antenatal care, we also faced a problem of money during questionnaire, concert form and research proposal printing which were costly.

We also faced a challenge that no current studies that have been carried out on this topic hence insufficient information regarding our topic.

1.8. SCOPE OF THE STUDY

This refers to the limitation of the study in terms of the time, domain and space.

In time

This research was conducted from February to September 2024.

Domain

This research was conducted in Kibogora Health Center mainly in maternity ward.

Space / geographical location

Kibogora health center is located in western province, Nyamasheke district, kanjongo sector, kibogora cell.

CHAPTER TWO: LITERATURE REVIEW

2.0 INTRODUCTION

This chapter will be reflecting on the   key definitions, concepts, theories regarding ANC and ideas from experts about the factors affecting the ANC services to teenage mothers.

2.1 DEFINITIONS OF THE KEY TERMS

Pregnancy

Pregnancy is the term used to describe the period in which a foetus develops inside a woman's womb or uterus. Pregnancy usually lasts about 40 weeks, or just over 9 months, as measured from the last   menstrual period to delivery. Health care providers refer to three segments of pregnancy, called trimesters. The major events in each trimester are described below (Shriver, 2017).

Assessment

Assessment refers to a connected sequence of measures used to determine a complex attribute of an individual or group of individuals. This comprises acquiring and interpreting information regarding a group of individuals (Yambi, 2020).

Attendance

This is the concept of people, individually or as a group, appearing at a location for a previously scheduled event (Franklin, 2020).

Teenage

This is a transitional stage from childhood to adulthood that occurs between ages 13 and 19 (Statista, 2024).

Antenatal care (ANC)

Antenatal care (ANC) can be defined as the care provided by skilled health-care professionals to pregnant women and adolescent girls in order to ensure the best health conditions for both mother and baby during pregnancy (Who, 2018). The purpose of the ANC is to prevent, identify or treat conditions that may threaten the health of the foetus / new-born and the mother and to help the women approach pregnancy and birth as a positive experience. Those conditions to carryout in ANC includes: Check-up of risk identification, management and prevention of pregnancy-related risk factors and concurrent diseases, as well as health counselling. The term 'contact' is more used as it implies an active connection between a pregnant woman and a health care provider that is not implicit with the word 'visit'.

In the new WHO ANC guideline, an ultrasound scan before 24 weeks' gestation is recommended for all pregnant women to:

- Estimate gestation period

- Detects, foetal anomalies and multiple pregnancies

- Enhance the maternal pregnancy experience

Table 1:2016 WHO antenatal care model

WHO FANC MODEL	2016 WHO FANC MODEL	TERM
Visit 1: 8-12 weeks	Contact 1: 1-12 weeks	First term
Visit 2: 24-26 weeks	Contact 2: 20weeks Contact 3: 26 weeks	Second term
Visit 3: 32 weeks	Contact 4: 30weeks Contact 5: 34 weeks Contact 6: 36 weeks	Third term
Visit4: 36-38 weeks	Contact 7: 38weeks Contact 8 :40 weeks	Third term

Return to the delivery at 41 week if not given birth (Who, 2018).

First Trimester (Week 1 to Week 12)

 The events that lead to pregnancy begin with conception, in which a sperm penetrates an egg. The fertilized egg (called a zygote) then travels through the woman's fallopian tube to the uterus, where it implants itself in the uterine wall. The zygote is made up of a cluster of cells that later- form the foetus and the placenta. The placenta connects the mother to the foetus and provides nutrients and oxygen to the foetus.

Second Trimester (Week 14 to Week 26)

Between 18 and 20 weeks, the typical timing for ultrasound to look for birth defects, you can often find out the sex of your baby.

At 20 weeks, a woman may begin to feel movement.

At 24 weeks, footprints and fingerprints have formed and the foetus sleeps and wakes regularly.

According to research from the NICHD Neonatal Research Network, the survival rate for babies born at 28 weeks was 92%, although those born at this time will likely still experience serious health complications, including respiratory and neurologic problems (Shriver, 2017).

Third Trimester (Week 27 to Week38- 42)

At 32 weeks, the bones are soft and yet almost fully formed, and the eyes can open and close. Infants born before 37 weeks are considered preterm. These children are at increased risk for problems such as developmental delays, vision and hearing problems, and cerebral palsy. Infants born between 34 and 36 weeks of pregnancy are considered to be " late term" (Shriver, 2017). Infants born in the 37th and 38th weeks of pregnancy—previously considered term—are now considered "early term." These infants face more health risks than infants who are born at 39 weeks or later, which is now considered full term (Shriver, 2017).

Infants born at 39 or 40 weeks of pregnancy are considered full term. Full-term infants have better health outcomes than do infants born earlier or, in some cases, later than this period. Therefore, if there is no medical reason to deliver earlier, it is best to deliver at or after 39 weeks to give the infant's lungs, brain, and liver time to fully developed (Kennedy, 2016)Infants born at 41 weeks through 41 weeks and 6 days are considered late term.

Infants who are born at 42 weeks and beyond are considered post term (Shriver, 2017).

2.1.6 Inclusion & Exclusion Criteria

Teenage mothers who were resident of nyamasheke district who were visiting kibogora health center for their current pregnancy were part of the research. While teenage mothers who live-outside Nyamasheke even those who doesn't visits kibogora health center for ANC and teenage mothers who have difficulties to conduct the interview were excluded from the study.

2.2 Literature review of knowledge of the teenage mothers related ANC services

Teenage mothers who are pregnant are a vulnerable population to poor uptake of antenatal care attendance due to poor health literacy, knowledge and skills deficit on ANC.

2.2.1 poor health literacy

Poor health literacy among teenagers is correlated with high-risk health behaviours and adverse health outcomes into adulthood. There is a significant gap in research related to knowledge and skills about ANC in teenage mothers (MacLean, 2020). Antenatal care is linked to improved reproductive health outcome for both mothers and babies. However its low attendance among teenage mothers implies that many of this mothers including their new born in a district like luuka where the teenage child bearing rates stands higher at 18.1% among girls aged 12-19 years face an increased risk for complications during and after delivery (Wasswa, 2022).

2.2.2 knowledge of teenage mothers on ANC

Antenatal care attendance among teenage mothers is still a limited problem in Uganda. the majority of adolescent mothers 82% attended ANC for their most recent pregnancy. Of this approximately 47% made the first ANC visit in the first trimester. More than a half (55%) of teenage mothers do not know when to start Antenatal care (Kayemba, 2023).

2.3 literature related to the Factors that Hinder the attendance of antenatal care among the teenage mothers

teenage mothers face numerous barriers for access to maternal health care like social–ecological model (SEM) of health-seeking behaviour. The theory suggests that factors at the individual level, which may include intra and interpersonal ,community and structural level interact and shape health-seeking behaviour including uptake of Antenatal care (Erasmus, 2020). Globally , the factors that hinder the uptake of ANC care services among teenage mothers are as follow : negative emotional response to pregnancy, lack of knowledge , fear of disclosing pregnancy , fear of stigmatisation and judgement , negative perception of healthcare workers.

Negative emotional response to pregnancy

Participants indicated that they experienced negative emotional responses such as sadness, fear and guilt when they realised that they were pregnant (Dutton, 2020).

Lack of knowledge

Knowledge about the availability and recommended timing of access to ANC services also influenced teenage mothers uptake of these services (Knight, 2020).

Fear of disclosing pregnancy

Family and social norms played a crucial role in access to ANC services. A common thread amongst the participants was fear of pregnancy disclosure to parents or guardians for fear of bringing shame to the family.

Fear of stigmatisation and judgement

Participants in this study identified community and social factors as influencing teenage mother's access to ANC.

Negative perception of healthcare workers

At the system level, behaviour of HCWs influenced health-seeking behaviour (Erasmus, 2020).

2.4 Antenatal care related costs for Rwandan households and the health system

The costs and possible results that countries would face if they make that change are still up for dispute. Understanding the expense of present antenatal care practices is a crucial first step for Rwanda, as to our knowledge, this has not yet been documented (Lars Lindholm, 2018). According to current Rwandan norms, the societal cost (home + health facility) of antenatal care for the four visits was calculated at $160 in private health facilities and $44 in public and faith-based health facilities. Out of the three appointments, the first visit cost the most ($75 in private and $21 in public and faith-based health institutions). In private health institutions, drugs and consumables accounted for 54% of total costs; in public and faith-based health facilities, they accounted for 73%. Prenatal care services are significantly less expensive per unit in public health institutions than with private ones. While the household cost is only a minor part of the total—between 3% and 7%—it is significant for families with lower incomes. A thorough equitable analysis of the availability and utilisation of prenatal care services is required, and strategies to lower the time costs to households as a potential deterrent to antenatal care utilisation should be explored (Hitimana, 2018).

2.5 THEORETICAL UNDERPINNING

Pregnancy-related issues are identified and managed as part of antenatal care services, which aim to preserve women's health throughout the process and enhance pregnancy outcomes (Nsibu, 2016). Pregnancy care visits serve as a forum for the delivery of professional healthcare practitioners' evidence-based clinical interventions and counselling on maternal health, childbirth, and emergency preparation (WHO, 2018).

Self-determination theory holds that individuals with a higher degree of self-determination are better able to make spontaneous decisions in all spheres of life (Deci, 2017). According to this idea, when a person's demands for competence, relatedness, and autonomy are met, they can become self-determined (Gabriel, 2023). Understanding how mother self-determination results in decisions about desirable behaviour, such using antenatal care facilities, is made easier by adopting self-determination theory. A researcher can evaluate a subject's perceived competence, perceived relatedness, and perceived autonomy by applying this theory, which collectively characterise a subject's degree of self-determination with regard to acting

appropriately (Gabriel, 2023). According to studies, one of the main obstacles to using antenatal care services in many African nations is the inability to make decisions for oneself and the lack of self-determination (Abubakar, 2017).

factors such as early pregnancy, the requirement for couple HIV testing, unintended pregnancies, and unfavourable attitudes from healthcare professionals were obstacles to using antenatal care services. This is consistent with research done in other parts of Africa. For instance, (DIRISU, 2020) found that the usage of antenatal care services is impacted by healthcare worker's unfavourable attitudes and fear of stigma.

One possible explanation for why younger pregnant women may not be using antenatal care services could be because they are not exposed to information about the services, which leads to a lack of awareness of its significance and a disregard for scheduled appointments. Similarly, a reduced adoption of antenatal care services may be caused by financial issues, such as not having enough money for transportation, fear of medical procedures (such HIV tests), and embarrassment over an unanticipated pregnancy. This is the situation in the UK, according to (Whitworth, 2017).

2.6 CONCEPTUAL FRAMEWORK

Independent variables

- Knowledge
- Fear of stigma and judgement
- Fear of disclosing pregnancy
- Negative emotion response to pregnancy

Dependent variable

Poor uptake of antenatal care attendance among teenage mothers
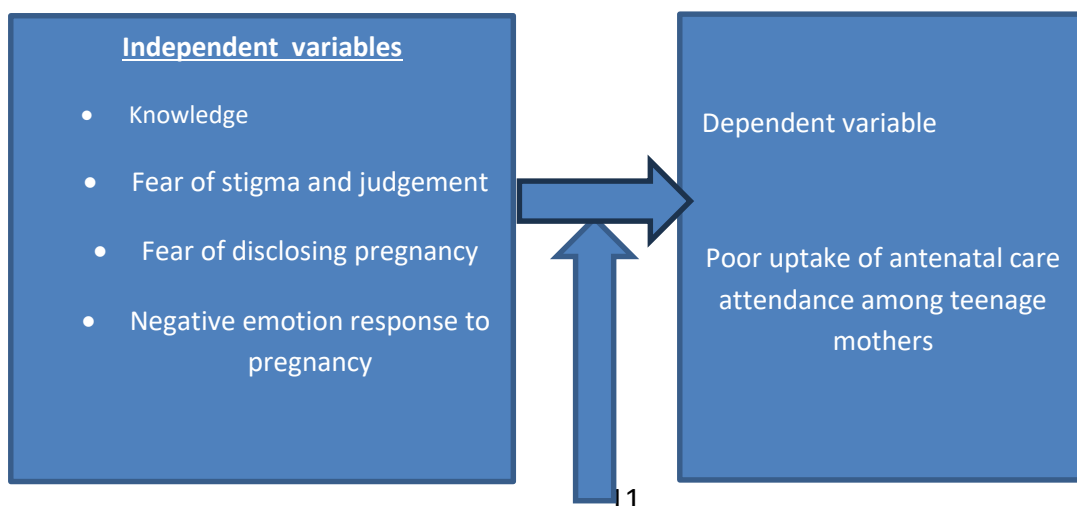
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Intervening VARIABLES

- health care facility

- health care provider

-mobilization by CH
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Figure 1: conceptual framework

CHAPTER THREE: RESEARCH DESIGN AND METHODOLOGY

3.0 INTRODUCTION

This chapter presents the methodology that to be used in carrying out the research project. It is composed of research approaches and design, target population, sampling procedures, sample size, data collection process, reliability and validity of measurements and data analysis details among others.

3.1 RESEARCH APPROACH

This study used quantitative approach. Therefore, quantitative data analysis method was used; Quantitative research approach is defined as the process of collecting and analysing numerical data. (Bhandari, 2020).

3.2 RESEARCH DESIGN

A research study design serves as the framework or set of methods and procedures used to collect and analyse data on variables specified in a particular research problem (Akesh, 2018). In our study, we employed a cross-sectional study design. According to Lauren Thomas, a cross-sectional study is a research design in which data is collected from various individuals at a single point in time (Thomas, 2020).

3.3 TARGET POPULATION

The target population is defined as group of individuals or subjects who meet specific criteria for inclusion in the research (Willie, 2023). Our target population was 63 teenage pregnant who attend antenatal care at kibogora health center.

3.4 SAMPLING TECHNIQUE

Sampling methods or sampling techniques in research are statistical methods for selecting a sample representative of the whole population to study the population's characteristics (Bisht, 2023). Our sampling technique was non-probability convenience sampling technique.

3.5 SAMPLE SIZE

Is defined as the number of observation used for determining the estimations of a given population (Hossan, 2023).

the researchers worked in their collaboration on at least 40 teenage mothers with all inclusion criteria. As teenage mothers are more vulnerable to worsening effects of unwanted pregnancy

, the sample size was calculated using the formula of taro Yamane , where the confidence interval is 95% and the margin error of 5% (Yamane, 1967).

$$n = \frac{N}{1+N(e)^2}$$ where N: study population , n : sample size , e : constant number =0.05

n= 63/1+63(0.05)^2

n=63/1.1575

n=54.42 approximately n=54

3.6 INCLUSION CRITERIA

All teenage mothers attending antenatal care visit at Kibogora Health Center during the period of the study will be included.

3.6.1 EXCLUSION CRITERIA

Teenage mothers who weren't present during the study and those who doesn't meet our proposed age group (less than 14 and above 19 years) was excluded.

3.7 DATA GATHERING PROCEDURE

3.7.1 DATA COLLECTING TOOLS

A structured questionnaire was used as data collection instrument. to assess the factors influencing poor use of antenatal care attendance among teenage mothers at Kibogora health center, was assessed by using self- administered questionnaire. The questionnaire was in English with a translated Kinyarwanda version.

3.8 DATA COLLECTION PROCEDURES

After getting a permission letter from Kibogora Polytechnic to conduct the study, we submitted it to kibogora health center administration in order to be approved and then present approved letter to the health center manager, who allowed us to conduct the research as well.

3.9 ETHICAL ISSUES

Ethical clearance was obtained from Kibogora polytechnic, and researcher letter to carry out the research. The permission sought from kibogora health Center administration through the Chief of Health Center to carry out the study. The data collected from Kibogora Health Center was used for research purposes only and kept with high confidentiality.

3.10 DATA ANALYSIS

In order to present the results of the study to be undertaken in a meaningful form, the data was edited, coded and entered into a computer then analysed through sub-processes classification and tabulation by using SPSS version 16. Collected data was transformed into frequencies and percentages that facilitated the task using descriptive statistics.

3.11 RELIABILITY AND VALIDITY MEASURES

Reliability refers to whether an assessment instrument gives the same results each time is used in a setting to the same type of subjects (Sullivan, 2011). Our data collection tool (questionnaire) consistency was checked through pre testing it on retrieving information from 4 registered nurses and midwives working in maternity ward and in order to check for stability of responses provided by questionnaire. These was excluded in the actual data collection.

Validity refers to how accurately the instrument measures what is supposed to measure or a study answers the study (questions (Sullivan, 2011). This is further divided into face and content validity. According to Yagmale (2003), content validity evaluates whether an instrument fully or sufficiently includes all the items required to reflect the idea being tested. All of the study objectives and the many components of the variables that were intended to be measured are represented by the items on our checklist. Additionally, the validity of the research content was guaranteed by distributing instruments to researchers and supervisors, among other professionals, who evaluated whether the instruments measured the intended outcomes. The degree to which the research instrument's items capture respondents' appearances or points of view as intended is known as face validity (Apa, 2023).

3.12 CONCLUSION

This chapter has discussed in depth the research methodology, including the research approach, research design, target population, sampling procedures, sample size, research instrument for data collection, data collection procedures, ethical issues, data analysis, reliability and validity measures.

CHAPTER 4: DATA PRESENTATION, INTERPRETATION AND DISCUSSION

4.0 INTRODUCTION

This chapter represents the study findings as obtained from the field by the researcher from the study entitled.The study involved the sample of 40 respondents who were subjected to 40 questionnaires. The respondents were teenage mothers below 20years and the mothers who had their first pregnancy at the age below 20years. Data were collected within 3weeks and are presented using frequency tables to presents the findings. We used tables to help others to understand easily, all of these were made using SPSS version 16, and 40 questionnaires as well.

4.1 social demographic characteristics of participants

In accordance to data presented in Table 2 it is clearly that 24 respondents corresponding to 60% were aged between 16-18 years,14 respondents corresponding to 35% were aged between 14-16 years, and finally 2 respondents corresponding to 5% were less than or equal to 14 years (<14).The findings of study showed that 18 respondents corresponding to 45% had primary school level, 13 respondents corresponding to 32.5% were illiterate, 5 respondents corresponding to 12.5% had secondary school level while 4 respondents corresponding to 10% had university level. Regarding the religion of respondents, the study revealed that 12 respondents corresponding to 30% were Adventist, 9 respondents corresponding to 22.5% were catholic,9 respondents corresponding to 22.5% were protestants,7 respondents corresponding to 17.5% were adepr, 3 respondents corresponding to 7.5% belongs to other religions.

In terms of occupation, the research found that 27 respondents corresponding to 67.5% were unemployed, 8 respondents corresponding to 20% were self-employed, 5 respondent corresponding to 12.5% were employed. In terms of residence our research revealed that 17 respondents corresponding to 42.5% they live in parent's home, 12 respondents corresponding to 30% they live in their own ghetto, 9 respondents corresponding to 22.5% they were adopted by other family,2 respondents corresponding to 5% they live elsewhere means they don't have homes. According to respondents information the research found that the insurance had no significant effect on antenatal care attendance among teenage mothers.

Table 2:Demographic information of the respondents

Variable	Description	Frequency	Percentage
Gender	Female	40	100%
	Male	0	0%
Age	<14	2	5%
	14-16	14	35%
	16-18	24	60%
Educational level	None	13	32.5%
	Primary level	18	45%
	Secondary level	5	12.5%
	University level	4	10%
Religion	Catholic	9	22.5%
	ADEPR	7	17.5%
	Adventist	12	30%
	Protestants	9	22.5%
	Others	3	7.5%
occupation	Employed	5	12.5%
	Self-employed	8	20%
	Unemployed	27	67.5%
Residence	Parent's home	17	42.5%
	Own ghetto	12	30%
	Adopted family	9	22.5%
	Else where	2	5%
Insurance	None	1	2.5%
	RSSB	17	42.5%
	MMI	5	12.5%
	MUSA	17	42.5%

Source: primary data,2024.

4.2 Factors that hinder the use of antenatal care among teenage mothers

Regarding table 3, the research found that 23 respondents corresponding to 57.5% they traveled 2-3km to reach health center, 8repondents corresponding to 20% they travelled >3km to reach health center, 5repondents corresponding to 12.5% they travelled 1-2km to reach health center, 4 respondents corresponding to 10% they travelled <1km to reach the health center. In terms of poor partner support the research found that 22 respondents corresponding to 55% they experienced poor partner support, while 18 respondents corresponding to 45% they didn't

experience poor partner support. Regarding waiting experience before service delivery during antenatal care visits the research revealed that 17 respondents corresponding to 42.5% they experienced poor appreciation,12 respondents corresponding to 30% they experience highly appreciation, 11 respondents corresponding to 27.5% they didn't appreciate the waiting time. In terms of recognizing the partner the research revealed that 23 respondents corresponding to 57.5% they were able to recognize their partner, 17 respondents corresponding to 42.5% they were not able to recognize their partner.

In accordance to the nurse and midwives interest to teenagers who were pregnancy the research found that 26 respondents corresponding to 65% they said nurses and midwives were interested in them while 14 respondents corresponding to 35% said that nurses and midwives they were not interested in them during service delivery. In terms of fear of meeting people while they were pregnancy, the research shows that 29 respondents corresponding to 72.5% they experienced fear of meeting people while they were pregnancy while 11 respondents corresponding to 27.5 they didn't experience the fear of meeting people while they were pregnant. The study revealed that 23 respondents corresponding to 57.5% were not supported by their partners,17 respondents corresponding to 42.5% had the support from their partners.

Regarding the family tolerance of respondents, the study shows that 27 respondents corresponding to 67.5% were tolerated by their family, 13 respondents corresponding to 32.5% were not tolerated by their family. In terms of pregnancy expectation, the research found that 29 respondents corresponding to 72.5% were not expecting to get pregnancy while 11 respondents corresponding to 27.5% were expecting to get pregnancy. The study revealed that 32 respondents corresponding to 80% they experienced family support during pregnancy while 8 respondents corresponding to 20% they didn't experience the family support during pregnancy.

Table 3:Factors that hinder the use of antenatal care among teenage mothers

Variables	Description	Frequency	percentage
Distance	<1km	4	10%
	1-2km	5	12.5%
	2-3km	23	57.5%
	>3km	8	20%
Poor partner support	Yes	22	55%
	no	18	45%
Waiting experience	Highly appreciated	12	30%
	Poorly appreciated	17	42.5%
	Not appreciated	11	27.5%
Recognised partner	Yes	23	57.5%
	no	17	42.5%
Supportive partner	Yes	17	42.5%
	no	23	57.5%
Family tolerance	Yes	27	67.5%
	no	13	32.5%
Pregnancy expectation	yes	11	27.5%
	no	29	72.5%
Family support	yes	32	80%2
	no	8	20%
Were the nurses and midwives interested in you	yes	26	65%
	no	14	35%
Were you fearful for meeting people while you were pregnant	yes	29	72.5%
	no	11	27.5%

Source: primary data, 2024.

4.3. knowledge of teenage mothers related antenatal care services (N=40)

Table 4 shows The factors related to the knowledge of teenage mothers on antenatal care services considered in this study included information regarding the benefit of antenatal care, time to start antenatal care and sources of information related antenatal care. In accordance

with data presented above, it is clear that 26 respondents corresponding to 65% had no information on benefit of antenatal care; 14 respondents corresponding to 35% had information on benefit of attending antenatal care. Also the findings of our study found that 27 respondents corresponding to 67.5% had no information on when to start antenatal care visits;13 respondents corresponding to 32.5 they knew when to start antenatal care. The research found that 27 respondents equivalent to 67.5% they had no other sources of information about antenatal care attendance while 13 respondents equivalent to 32.5% had the other source of information about antenatal care.

Table 4:knowledge of teenage mothers related antenatal care services

Variables	Description	Frequency	Percentage
Information regarding the benefits of ANC	Yes	14	35%
	no	26	65%
Did you know when to start ANC	Yes	13	32.5%
	no	27	67.5%
Did you have other sources of information about ANC	Yes	13	32.5%
	No	27	67.5%

Source : primary data, 2024

4.4 relation between participant demographic data and the support from partners with pregnancy expectation

Table 5 presents the results of a chi-squared analysis examining the relationship between various demographic characteristics and both pregnancy expectation and partner support. The analysis consistently reveals no statistically significant associations across all variables tested. Regarding age, there was no significant association with either pregnancy expectation (χ^2 = 0.800, p = 0.670) or partner support (χ^2 = 1.807, p = 0.405). Similarly, no significant associations were found between educational level and pregnancy expectation (χ^2 = 5.047, p = 0.168) or partner support (χ^2 = 3.367, p = 0.338).

Concerning religion, the analysis showed no significant correlation between religion and the variables in question, with χ^2 values of 1.626 and 6.760 and p-values of 0.804 and 0.149, respectively. For occupation, there was no significant relationship between occupation and pregnancy expectation (χ^2 = 4.143, p = 0.126) or partner support (χ^2 = 3.289, p = 0.193). In

terms of residence, no significant associations were observed between residence and both partner support (χ^2 = 3.063, p = 0.382) and pregnancy expectation (χ^2 = 1.981, p = 0.576). Lastly, regarding insurance status, the analysis revealed no significant association between insurance and either pregnancy expectation (χ^2 = 6.365, p = 0.095) or partner support (χ^2 = 3.316, p = 0.345).

Table 5:Relationship between demographic characteristics and supportive partner and pregnancy expectations

	supportive partner		Pregnancy expectation	
	X^2- value	p-value	X^2-value	p- value
Age	1.807[a]	.405	.800[a]	.670
Education level	3.367[a]	.338	5.047[a]	.168
Religion	6.760[a]	.149	1.626[a]	.804
Occupation	3.289[a]	.193	4.143[a]	.126
Residence	1.981[a]	.576	3.063[a]	.382
Insurance	3.316[a]	.345	6.365[a]	.095

4.5 Association between factors that hinder the use of antenatal care and pregnancy expectation and supportive partner

Table 6 presents the results of a chi-squared analysis exploring the association between factors that hinder the use of antenatal care among teenage mothers and the variables of pregnancy expectation and having a supportive partner. The analysis indicates that the distance of travel does not significantly correlate with either pregnancy expectation (χ^2 = 1.205, p = 0.752) or having a supportive partner (χ^2 = 2.856, p = 0.414). Poor partner support, on the other hand, shows a strong and significant association with both pregnancy expectation (χ^2 = 8.310, p = 0.004) and having a supportive partner (χ^2 = 11.831, p = 0.001), suggesting that inadequate support from partners significantly affects these outcomes. Waiting experience is significantly related to pregnancy expectation (χ^2 = 9.707, p = 0.008). Having a recognized partner is significantly correlated with having a supportive partner (χ^2 = 7.473, p = 0.006) but does not show a significant association with pregnancy expectation (χ^2 = 1.440, p = 0.230). Additionally, family tolerance and family support do not exhibit significant correlations with either

pregnancy expectation ($\chi^2 = 0.103$, p = 0.748; $\chi^2 = 0.502$, p = 0.479) or having a supportive partner ($\chi^2 = 0.129$, p = 0.720; $\chi^2 = 0.102$, p = 0.749).

Fear of meeting people while pregnant is strongly associated with both pregnancy expectation ($\chi^2 = 9.937$, p = 0.002) and having a supportive partner ($\chi^2 = 5.673$, p = 0.017), indicating significant correlations. Conversely, there is no significant correlation between nurses and midwives' interest toward teenage mothers and either pregnancy expectation ($\chi^2 = 2.548$, p = 0.110) or having a supportive partner ($\chi^2 = 1.890$, p = 0.169). poor partner support and the fear of meeting people while pregnant are the primary factors significantly associated with both pregnancy expectation and having a supportive partner. Other factors, such as distance of travel, family tolerance, family support, and nurses and midwives' interest, do not show significant correlations with the variables studied.

Table 6: Association between factors that hinder the use of antenatal care with pregnancy expectation and supportive partner

	supportive partner		Pregnancy expectation	
	X^2- value	p-value	X^2-value	p- value
Distance of travel	2.856[a]	.414	1.205[a]	.752
Poor partner support	11.831[a]	**.001***	8.310[a]	**.004***
Waiting experience	2.462[a]	.292	9.707[a]	**.008***
Recognized partner	7.473[a]	**0.006***	1.440[a]	.230
Family tolerance	.129[a]	.720	.103[a]	.748
Family support	.102[a]	.749	.502[a]	.479
Fear of meeting people while pregnant	5.673[a]	**.017***	9.937[a]	**.002***
Were the nurses and midwives interested in you	1.890[a]	.169	2.548[a]	.110

4.6 Association between knowledge of teenage mothers with pregnancy expectation and supportive partner

Table 7 presents the results of a chi-squared analysis exploring the association between the knowledge of teenage mothers and their pregnancy expectations as well as having a supportive partner. The analysis reveals a strong association between understanding the benefits of antenatal care and both pregnancy expectation and having a supportive partner. The p-values for these associations are less than 0.05, with chi-square values of 5.469 and 4.183 and corresponding p-values of 0.019 and 0.041, respectively. In contrast, the analysis shows no significant association between knowing when to start antenatal care and either pregnancy expectation ($\chi^2 = 1.161$, p = 0.281) or having a supportive partner ($\chi^2 = 1.015$, p = 0.314).

Additionally, having other sources of information about antenatal care does not show any significant correlation with either pregnancy expectation or having a supportive partner, with chi-square values of 0.103 and 0.105 and p-values of 0.748 and 0.746, respectively.

Table 7:Association between knowledge of teenage mothers with pregnancy expectation and supportive partner

	supportive partner		Pregnancy expectation	
	X^2- value	p-value	X^2-value	p- value
Information on Benefits of antenatal care	4.183[a]	**.041***	5.469[a]	**.019***
Knowledge of when to start antenatal care	1.015[a]	.314	1.161[a]	.281
Many sources of information about antenatal care	.105[a]	.746	.103[a]	.748

4.7 DISCUSSION OF FINDINGS

The discussion of the data reveals several critical insights into the factors influencing the use of antenatal care among teenage mothers at Kibogora Health Center in Rwanda. First, the

results from demographic characteristics such as age, educational level, religion, occupation, residence, and insurance status do not significantly influence pregnancy expectations or partner support among teenage mothers. This suggests that these factors may not be as crucial in shaping the experiences of teenage mothers to use the ANC services as previously thought Gerard (Uwimana, 2023).The lack of significant associations across the demographic variables suggests that teenage pregnancy and partner support may be experienced similarly across different demographic groups. This could imply that factors influencing these experiences are more universally applicable or that there are other, unmeasured factors playing a more critical role. Specifically, the challenges faced by younger teenage mothers in accessing partner support could be due to various factors, such as reduced relationship stability, limited social support networks, or developmental issue (Shah, 2013).

In contrast, Table 6 highlights that psychosocial factors, such as poor partner support, fear of societal judgment, and the recognized status of the partner, are significantly associated with the non-use of antenatal care (ANC) services. Poor partner support and fear of social stigma are strongly linked to lower utilization of ANC services, indicating that these negative experiences and perceptions are crucial deterrents for teenage mothers seeking prenatal care. Moreover, the recognized status of the partner influences the likelihood of using ANC services. Supportive and formalized relationships appear to facilitate better engagement with healthcare services, suggesting that a partner's recognition and support can enhance a teenage mother's access to prenatal care. Additionally, the time spent waiting at healthcare facilities affects ANC service utilization. Longer waiting periods are associated with reduced use of these services, highlighting that both logistical and psychosocial barriers—such as waiting times—can prevent teenage mothers from accessing timely prenatal care, as noted by Sarah. (Penman, 2023).

 This finding emphasizes the importance of addressing these psychosocial challenges when designing interventions to support teenage mothers .The significant correlation between recognized partner status and having a supportive partner underscores the role of formalized relationships in enhancing partner support (River, 2022). Table 7 reveals that knowledge about the benefits of antenatal care is significantly associated with both pregnancy expectations and partner support. This finding suggests that a better understanding of the advantages of antenatal care positively influences teenage mothers' expectations about their pregnancy and the level of support they receive. Specifically, when teenage mothers are informed about the benefits of prenatal care, they are more likely to have positive pregnancy expectations and receive stronger

support from their partners. This underscores the importance of targeted health education in improving both the anticipatory outlook and relational dynamics of teenage mothers, as informed individuals are better positioned to engage with and benefit from prenatal care services, as noted by Phoebe Miller (M.D, 2022).

 Interestingly, the lack of significant associations between knowledge of when to start antenatal care or having other sources of information and the dependent variables suggests that it is not merely the presence of information, but the specific content and understanding of the benefits that matter most .This finding may point to the need for targeted and context-specific education rather than generic information dissemination (Dusingizimana, 2023). The overall findings suggest that interventions to improve antenatal care attendance among teenage mothers should focus on providing psychosocial support and targeted health education. Addressing stigma and fear associated with teenage pregnancy, enhancing partner recognition and support, and increasing awareness of the benefits of antenatal care are crucial. These efforts could significantly impact teenage mothers' engagement with prenatal care services and overall pregnancy outcomes (Hackett, 2019).

CHAPTER 5: CONCLUSIONS AND RECOMMENDATION

5.1 CONCLUSION

In conclusion, the research emphasizes that psychosocial factors and knowledge about antenatal care significantly impact attendance and partner support. Specifically, poor partner support, fear of societal judgment, and understanding the benefits of prenatal care are strongly associated with the use of ANC services. To enhance antenatal care attendance among teenage

mothers, interventions should address the user friendly antenatal care, psychosocial challenges, and focus on improving health education. By reducing stigma, increasing partner support, and raising awareness of the benefits of antenatal care, healthcare providers can better support teenage mothers and foster greater engagement with prenatal services.

Recommendations

To community health workers

1. Foster a more supportive and understanding environment for teenage mothers by reducing societal stigma associated with teenage pregnancy. Public awareness campaigns can help normalize and support teenage mothers.
2. Encourage the development of community support networks that provide emotional and practical assistance to teenage mothers, including peer support groups and mentorship programs.

To Teenage Mothers:

1. Actively seek information about the benefits of antenatal care and engage in educational resources provided by healthcare institutions to better understand and manage pregnancy.
2. Strengthen relationships with supportive partners and family members to ensure a robust support system during pregnancy.

To Healthcare Institutions:

1. Implement targeted educational programs that emphasize the benefits of antenatal care, addressing common fears and misconceptions to improve understanding and engagement.
2. Develop and offer services that address psychosocial challenges, such as counseling and support groups, to help teenage mothers overcome barriers to accessing antenatal care.

3. Work on reducing waiting times and other logistical barriers within healthcare facilities to make it easier for teenage mothers to access and utilize antenatal care services.

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DATA COLLECTION CHECKLIST(QUESTIONNAIRE)

ENGLISH VERSION

Appendix 1: questionnaire designed FOR assessment of factors influencing poor use of antenatal care attendance among mothers at kibogora health center in Rwanda.

Dear participant,

We are MWIZERWA Gedeon and SALUS Dako Darius, students at kibogora polytechnic, Faculty of health sciences and Department of general nursing.

We are conducting a research to explore out factors influencing poor uptake of antenatal care attendance among teenage mothers at kibogora health center in Rwanda. We would like to ask your help in this study by responding to the questions in the questionnaire. All information provided will be confidentially treated and used only for academic purpose.

Date…../……2024

INSTRUCTIONS

A.   Do not write your name

B.   Circle the best alternative am the responses provided on your choice

SECTION A: demographic informations

A)Gender

    1.Male

    2.Female

B)Age of respondents

    1.<14

    2.14-16

    3.16-18

C)Educational level

1.None

2.Nursery

3.Primary

4.Secondary

5.University

D)Religion

    a. Catholic

    b. ADEPR

    c. Adventists

    d. Protestants

    e. Others

E)Occupation

1.Employed

2.Self- employment

3.Unemployed

F)Do you have a supportive partner?

1.Yes

2.No

G)Does your family tolerate ?

1.Yes

2.No

H)Were you expecting to have the pregnancy?

1.Yes

2.No

I)Does your family support you?

1.Yes

2.No

J)Where do you live?

1.Parent's home

2.Own ghetto

3.Adopted family

4.Else where

K)What kind of insurance do you use?

    1.None

    2.RSSB

    3.MUSA

    4.Others

SECTION B: questions related to factors that hinder the attendance of antenatal care among the teenage mothers at kibogora health center

    A)What distance do you travel from home to health facility?

    1.<1km

    2.1-2km

    3.2-3km

4.>3km

B)Poor support from the partner

   1.Yes

   2.No

C)What was your waiting experience at health Center during ANC visit?

   1.Highly appreciated

   2.Poorly appreciated

   3.Not appreciated

D)Does teenage have the recognized partners?

   1.Yes

   2.No

SECTION C: knowledge and skills related to antenatal care among teenage mothers

A)Did you know the benefit of antenatal care?

   1.Yes

   2.No

B)Did you know when to start antenatal care?

   1.Yes

   2.No

C)Were the nurses and midwives interested in you?

   1.Yes

   2.No

D)Were you fearful in meeting people during pregnancy?

   1.Yes

   2.No

E)Did you have other sources of information about antenatal care?

   1.Yes

   2.No

Data collection tool adopted from a study entitled " The factors contributing to, and effecting, pregnancy among teenagers in juba. Which was carried out by Gwido Vincent (vincent, 2016).