PERCEPTIONS OF ADOLESCENT PARENTING AMONG HIGH SCHOOL ADOLESCENT STUDENTS FROM SELECTED RURAL AND URBAN SCHOOLS IN RWANDA

KAYIRANGA Dieudonné

College of Medicine and Health Sciences

School of Nursing and Midwifery

Master of Science in Nursing (Paediatrics)

2017

PERCEPTIONS OF ADOLESCENT PARENTING AMONG HIGH SCHOOL ADOLESCENT STUDENTS FROM SELECTED RURAL AND URBAN SCHOOLS IN RWANDA

by

KAYIRANGA Dieudonné
216339170

A dissertation submitted in partial fulfillment of the requirements for the degree of
MASTER OF SCIENCE IN NURSING (PAEDIATRICS)

In the College of Medicine and Health Sciences

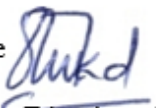
Supervisor: Mrs. UWIMANA Marie Chantal

Co-Supervisor: Dr. MORELAND Patricia

July 2017

DECLARATION

I, Kayiranga Dieudonné, do hereby declare that this research dissertation titled "Perceptions of adolescent parenting among high school adolescent students from selected rural and urban schools in Rwanda" submitted in partial fulfilment of the requirements for the degree of Master of Science in Nursing (Paediatrics) at the University of Rwanda/ College of Medicine and Health Sciences, is my original work and has not previously been submitted elsewhere. Also, I do declare that a complete list of references is provided indicating all the sources of information quoted or cited.

Signature 

Kayiranga Dieudonné

DEDICATION

I sincerely dedicate this work to:
My beloved wife Céline Ugiriwabo for her care and support during my studies,
My daughter Celia Kayiranga Ganza and son Bruce Kayiranga Ngenzi for your love,
My mother Césarie Mukanyana for special love shown since my conception and birth,
All my brothers and sisters for good collaboration and support,
All my classmates for the moments shared together,
Finally to all my relatives, friends and family friends.

Your love, patience, and support helped me through all this Master's education.
May the Almighty God richly bless you all.

ACKNOWLEDGEMENTS

I would like to thank the Almighty God who created us and enabled us to finish our studies. Also, this research dissertation could not have happened without the following people who contributed financially, professionally and morally towards the completion of this work:

Mrs. Marie Chantal Uwimana and Dr. Patricia Moreland, my supervisors, for their understanding, assistance, encouragement, sacrifice and meticulous guidance that permitted me to produce this work on time.

Professor Judith W. Herrman, for her permission to use and adapt the questionnaire she developed entitled “Thoughts on Teen Parenting Survey”.

Staff from the College of Medicine and Health Sciences especially Mr. Valens Mbarushimana, Dr. Madeleine Mukeshimana and Dr. Geldine Chironda, classmates and friends for their research inputs, encouragement, and help.

The University of Rwanda for sponsoring my studies.

Staff from secondary schools where I conducted my study, students and their parents for their commitment and contribution to the fulfilment of the study objectives by consenting for the study and responding the questionnaires following the instructions that were given.

My last but not least acknowledgement goes to my beloved family especially my wife for her patience, love and encouragement during my studies, and my daughter and son, for their patience and love. God bless you in abundance.

All of you who assisted me in different ways for the completion of my Master's studies, the Almighty God bless you.

ABSTRACT

Background: Globally, adolescent pregnancy is a public health concern. Early parenting has been found to be associated with increased risk of maternal and neonatal morbidity and mortality and violates the rights of girls worldwide. In Rwanda, adolescent pregnancy has increased from 4.1% in 2005 to 7.3% in 2015.

Aim: To determine the perceptions of adolescents 15-19 years of age on how their lives would change if they experienced a teen birth.

Methods: This was a non-experimental, cross-sectional study. A proportionate stratified random sampling technique was used to select study respondents. Data were collected from 245 adolescents aged 15 to 19 years attending the two selected secondary schools of Rwanda and analysed by SPSS Version 20. Bivariate and logistic regression models were used to determine the association of variables with perceptions of adolescent parenting. Data from descriptive and inferential statistics were presented in tables.

Results: The analysis of the findings revealed the positive perceptions of adolescents parenting among high school adolescent students from selected rural and urban schools in Rwanda. The response rate was at 100% and the bivariate analysis showed a statistical association between gender, attendance to church and pregnant status with perceptions of an adolescent. The majority of females had negative perceptions while the majority of males presented positive perceptions regarding adolescent parenting. In addition, adolescents that did not attend any spiritual or religious groups at least once per month had more positive perceptions compared to those that attend. The perceptions of all adolescents that confirmed to be pregnant during this study were positive toward teen parenting. This study indicated that there was a strong statistical association between adolescents who had sexual intercourse and the positive perceptions of adolescents parenting among high school adolescent students. However, multivariate analysis showed gender as the only variable with statistical significance.

Conclusion: The findings suggest that there is a need to strengthen the sexual health education programs in secondary schools to raise adolescents' awareness of sexual and reproductive health. Health facilities should facilitate adolescents to easily afford contraceptive methods as part of health services delivered.

TABLE OF CONTENTS

Page

LIST OF SYMBOLS, AND ABBREVIATIONS/ACRONYMS

CI: Confidence Interval

CMHS: College of Medicine and Health Sciences

ICT: Information, Communication, and Technology

INSR: Institut National de la Statistique du Rwanda

LMIC: Low and Middle Income Countries

MIGEPROF: Ministry of Gender and Family Promotion

MINEDUC: Ministry of Education

MOH: Ministry of Health

NISR: National Institute of Statistics of Rwanda

NYC: National Youth Center

ONAPO: Office National de la Population

OR: Odds Ratio

PTBS: Perceptions of Teen Births Scale

RDHS: Rwanda Demographic and Health Survey

SES: Socio Economic Status

SPSS: Statistical Package for Social Sciences

SRH: Sexual and reproductive health

STI: Sexually transmitted infection

TRA: Theory of Reasoned Action

TTPS: Thoughts on Teen Parenting Survey

UNFPA: United Nations Population Fund

UR: University of Rwanda

USA: United States of America

WHO: World Health Organization

LIST OF TABLES

Page

LIST OF FIGURES

LIST OF ANNEXES

CHAPTER ONE: INTRODUCTION

1.1 INTRODUCTION

Globally, the estimates show that the number of adolescents stands at 1.2 billion and 7.3 million adolescent girls under 18 give birth yearly in developing countries (UNFPA, 2013b, p. 6,28). Countries of the Sub-Saharan Africa are the first with the highest prevalence of adolescent pregnancy and birth among developing countries with a prevalence of 28 percent of girls (UNFPA, 2013a, p. 15). According to the UNFPA (2013), births to girls under age 15 in Sub-Saharan Africa are projected to double by 2030 (UNFPA, 2013b, p. 18).

Research indicates that adults often perceive adolescent parenting to result with negative implications, however, some adolescents perceive it to be positive and necessary to foster personal growth (Smith, Skinner and Fenwick, 2012, p. 181). The adolescent period is characterized by many changes and multiple influences that lead to adulthood. Kincaid and colleagues (2012, p. 177) have revealed that early introduction of sexual behaviours among adolescents with multiple sex partners or unprotected sex has been accompanied with negative consequences including maternal mortality.

To reduce maternal mortality, the World Health Organization set up various programs in order to increase the community awareness of the importance of pregnancy prevention at an early age; by increasing the availability and use of contraceptive methods and also by preventing forced sex (World Health Organization, 2015a, p. 9). This was to reduce marriages that happen before age of eighteen especially in developing countries. This organization is also striving to reduce unsafe abortions, avail and encourage the community to visit health care settings in order to have access safe maternal care during peripartum (World Health Organization, 2015a, p. 9).

In Rwanda, adolescent pregnancy has increased from 4.1% in 2005 to 7.3% in 2015. The high rate of maternal and neonatal morbidity and mortality associated with adolescent parenting makes reducing pregnancy in adolescents an urgent priority (World Health Organization, 2015a, p. 9). Research indicates that developing and implementing targeted programs to prevent adolescent pregnancy should include the perception of adolescents about how their lives would change if they experienced childbearing (Herrman and Waterhouse, 2011, p. 579). Through the Ministry of Gender and Family Promotion of Rwanda, a campaign was launched in 2015 to last 8 months with the aim to set up strategies

to prevent unintended pregnancies among adolescents in secondary schools across the country (MIGEPROF, 2015; NYC, 2017). To improve the health of children at school, the Ministry of Education of Rwanda elaborated thematic areas which include Sexual Reproductive Health through the national school health strategic plan 2013-2018 in order to manage adolescent pregnancies in schools (MINEDUC, 2014, p. 8).

1.2 BACKGROUND TO THE STUDY

Adolescent pregnancy is a public health concern worldwide. Current studies indicate that 70,000 adolescents die from complications related to pregnancy and childbirth every year (UNFPA, 2013b, p. 4). An estimated three million unsafe abortions are from adolescents. Other health impact includes risks of illness and disability, including obstetric fistula, sexually transmitted infections, including HIV, and health risks to infants including premature birth (UNFPA, 2013b, p. 32).

The cost and rewards of adolescent parenting indicated the magnitude of perceptions in adolescents. Smith and colleagues (2012) in a study to describe perceptions of teen motherhood in adolescent females from Australia revealed that the rewards of adolescent births were viewed by some adolescents as being an adult with full independency with a transformative experience that foster personal growth. They believe it changes their life in a good way by becoming strong and growing faster. In contrast, the cost of adolescent parenting was viewed as decreasing social life and social isolation. It causes multiple demands and inhibiting opportunities for personal development (Childs, Knight and White, 2015).

The study conducted by Lebese and colleagues (2015) in South Africa revealed that adolescent parenting was perceived to be either positive or negative among students. The adolescent pregnancy was perceived to be good if planned by sexual partners and they were going to work and plan to get married or if the concerned female student was already married and the full support is granted by the husband and/or both parents. However, the adolescent pregnancy was perceived to have negative effects on the student, parents to the student and the born child as the student may be rejected by the sexual partner who impregnated her, the factor that may also be emotionally and psychologically affecting.

In Rwanda, the adolescent pregnancy is much prevalent in the East province and less prevalent in Kigali city. The East province has the highest prevalence (23.1%) of women

with unintended pregnancies while Kigali city has the lowest prevalence (14.7%) of women with unintended pregnancies (Basinga *et al.*, 2012, p. 26). The early introduction of sexual behaviours among adolescents with multiple sex partners or unprotected sex has been accompanied with negative consequences (Kincaid *et al.*, 2012, p. 2).

Adolescent parenting starts at an early age in Rwanda, and there is an increment of ratio across the country.

Year	*Percentage of adolescents who have begun childbearing*
2000	5
2005	4.1
2008	5.7
2010	6.1
2015	7.3

Table 1. Adolescent pregnancy and motherhood (ONAPO and ORC Macro, 2001; INSR and ORC Macro, 2006; MOH, NISR and ICF Macro, 2009; NISR, MOH and ICF International, 2012, 2015)

According to qualitative studies' recommendations, additional research that may increase the measure's reliability might generate the useful research findings (Herrman, 2008; Herrman and Nandakumar, 2012). Quantitative studies might determine adolescent perceptions of adolescent births with larger groups of youth (Herrman and Nandakumar, 2012).

The Demographic Health Survey conducted in Rwanda in 2015 revealed East province and Kigali City to have about two times more earlier childbearing than other provinces (NISR, MOH and ICF International, 2015). The rural district of Nyagatare in the East province of Rwanda is the first to have a lowest median age in girls and is among the four first districts with lowest median age in boys at first sexual intercourse with lowest median age at first birth. Also, the survey indicated the urban district of Gasabo in Kigali City was among the two first districts of Rwanda with advanced median age in girls at first sexual intercourse and at first birth. By determining the perceptions of adolescent parenting among high school adolescent students from selected rural and urban schools in Rwanda, this study elaborated recommendations to different areas in order to minimise and prevent early childbearing.

1.3 PROBLEM STATEMENT

Many programs and campaigns were initiated by the government of Rwanda to prevent adolescents' pregnancies. This was to respond to statistics that show an increase of adolescent parenting where Rwanda accounts about seven percent of adolescent births every year (NISR, MOH and ICF International, 2015, p. 10). However, Herrman and Nandakumar (2012, pp. 3–4) revealed to be perceived negative and positive rewards related to adolescent parenting among adolescents but the above perceptions are not considered when implementing programs and running campaigns.

Although Demographic Healthy Surveys and studies to evaluate adolescent perceptions on sexuality and relationship pregnancy were done in Rwanda (Michielsen, Remes, Rugabo, Van Rossem, *et al.*, 2014), little is known about adolescents' parenting perceptions. The Rwanda Demographic Health Survey shows that adolescents in rural areas of Rwanda engages in sexual relationships earlier and lead to early first birth compared to the urban areas of the country. A study conducted by Condon and colleagues (2001, p. 255) recommends further studies about the views of male and female adolescents students regarding adolescent pregnancy and parenthood. In addition, little is known about adolescents' perceptions of adolescent parenting and there is no study done in Rwanda to assess the above adolescent perceptions. The researcher, therefore, determined the perceptions of adolescent parenting among 15 to 19 years old high school adolescent students from selected rural and urban schools in Rwanda**.**

1.4 THE AIM OF THE STUDY

The aim of the study was to determine the perceptions of adolescents 15-19 years of age on how their lives would change if they experienced a teen birth.

1.5 RESEARCH OBJECTIVES

a) To determine the perceptions of adolescents 15-19 years-of-age, attending two secondary schools in Rwanda, regarding the positive or negative aspects of teen parenting.
b) To determine the association between demographic variables and the positive or negative perceptions of teen parenting among adolescents 15-19 years of age attending two secondary schools in Rwanda.

c) To determine the association between positive or negative perceptions of teen parenting and safe sexual behaviour.

1.6 RESEARCH QUESTIONS

a) What are the perceptions of adolescents 15-19 years-of-age, attending two secondary schools in Rwanda in regard to their positive or negative aspects of teen parenting?
b) What is the association between demographic variables and the positive or negative perceptions of teen parenting among adolescents 15-19 years of age attending two secondary schools in Rwanda?
c) What is the association between positive or negative perceptions of teen parenting and safe sexual behaviour?

1.7 SIGNIFICANCE OF THE STUDY

Research:

The findings will serve as a baseline for further studies aimed to determine the perceptions of adolescent parenting among adolescents.

Nursing Education:

This research dissertation will be used as a reference material in nursing schools to make nursing students aware of adolescents' perceptions regarding adolescent parenting.

The nursing education delivered to adolescents' students will include sexual reproductive health that bases on adolescents' perceptions regarding adolescent parenting for the prevention of early childbirth.

Nursing Practice:

The results from this study will help health care professions to know the adolescents' perceptions regarding adolescent parenting and take them into consideration when caring for them and in daily nursing practice.

Nursing Leadership and management:

The results from this study will be used by nurse leaders to plan and coordinate focused school health education aiming at preventing early childbearing and promoting adolescent friendly services.

1.8 DEFINITION OF CONCEPTS

This section defines key terms used in research questions that analyse adolescents' perceptions of adolescent parenting.

Adolescent: Adolescent is a developmental period between the age of 10 and 19, characterized by human growth and development that occurs after childhood and before adulthood. The early adolescence is between 10 and 14 years of age while late adolescence is between 15 and 19 years of age (Curtis, 2015). Because pregnancy requires physical development, this study included adolescent students from 15 to 19 years of age. In this study, the adolescent was simultaneously replaced by a teen in some paragraphs but they mean the same.

Perception: it is an interpretation that bases on previous knowledge and experience to understand the environment. It is built based on the environment and kept information from the past (Carbon, 2014). Perception in this study is about the feelings of study respondents on how they understand the statements from the questionnaire.

Parenting: it refers to being responsible for raising and belonging to children in order for the child becomes well equipped and be able to apprehend his or her full potential. It is all about raising children and make them capable persons they can be (Kincaid *et al.*, 2012). Parenting in this study reflects to raising and belonging to children.

Pregnancy: it refers to as period that begins after conception and it occurs at fertilization before childbearing (Fiedler *et al.*, 2015). This means, there is the presence of embryo or foetus inside the uterus of the female. In this study, adolescents that conceived and did not abort or deliver are considered to be pregnant.

Birth: this is a process by which a pregnant mother delivers a baby.

1.9 STRUCTURE/ORGANIZATION OF THE STUDY

This research dissertation is made of two main parts. The first part consists of title page, declaration, dedication, acknowledgements, abstract, table of contents, a list of symbols and abbreviations/acronyms, a list of tables, a list of figures and list of annexes. The second part consists of chapter 1 for introduction, chapter 2 for literature review, chapter 3 for

methodology, chapter 4 for research findings, chapter 5 for the discussion, chapter 6 for the summary, conclusions, and recommendations, references and appendices.

1.10 CONCLUSION TO CHAPTER ONE

This introductory chapter of this research report gives an orientation of the study that was conducted. It shows the background to the study, the problem statement, research questions, the aim and objectives as well as the significance of the study and the definition of concepts that are complemented by the next chapter of the literature review to make a sounding flow of systematic enquiry.

CHAPTER TWO: LITERATURE REVIEW

2.1 INTRODUCTION

To identify the aspects of the problem where research is conducted, there is a need of being familiar with studies that were done (Polit and Beck, 2008, p. 48). This chapter of the literature review includes four main parts. The first part is theoretical literature that defines adolescent parenting, it highlights physiological changes that happen in adolescents, it shows the current prevalence of adolescents parenting, it describes various effects of adolescent parenting and ways for its mitigation. The second part is the empirical literature that describes factors contributing to adolescent parenting and perceptions of parenting among adolescents. The third part focuses on the critical review and research gap identification regarding adolescent parenting. The fourth part is a theoretical framework of the theory of reasoned action.

The literature search identified similar studies that were done in order to be linked with perceptions of adolescents for the study settings of the current research. To get these studies, a purposeful and systematic research that used the key words of perceptions, beliefs, adolescent pregnancy and adolescent parenting identified online studies through Google Scholar, HINARI, PubMed CINAHL, EBSCO and grey search.

2.2. THEORETICAL LITERATURE

The adolescent pregnancy is a public health concern. The various studies have indicated the adolescent births to be associated with contributing factors where they can lead to school dropouts. The adolescent birth has been listed as one of the negative outcomes related to sexual activity among adolescents and has an impact on adolescents' relationship with their family, intimate others, and peers, a vocation at school and work, and the personal characteristics are affected (Olivari *et al.*, 2015, p. 247). This section of theoretical literature determines physiological changes that happen in adolescence period, prevalence and effects of adolescent parenting and ways to mitigate adolescent parenting.

2.2.1 Definition of adolescent parenting

Curtis and colleagues (2015) defined adolescent as a developmental period between the age of 10 and 19, characterized by progressive changes that are physiologic, psychosocial, temporal and cultural. This age period starts from childhood and followed by puberty in

adulthood. The adolescent parenting comes when adolescents give birth and become responsible for raising children in order for the child becomes well equipped and be able to apprehend his or her full potential (Kincaid *et al.*, 2012, p. 2). The adolescent parenting refers to any pregnancy or birth that happens in the adolescent period before the age of 20 (Vincent and Alemu, 2016, p. 28).

2.2.2 Physiological changes that happen in adolescents

Adolescence is the final stage of child growth to adulthood characterized by dynamic development that follows continuously within various developmental events. This continuous development is divided into physical, social, cognitive and psychological development (Curtis, 2015) and the baby presents various developmental milestones immediately after birth that have a sequential follow related to the development of body systems (Dosman and Andrews, 2012, p. 75).

According to Curtis (2015), the author noted the period of adolescence to include physical development that is manifested by rapid increases in weight and height in both boys and girls, development of secondary sex characteristics and a continuous brain development. These physiological changes affect teens in one way or another, by making them lack grace in movement or posture due to growth changes, being concerned about the physical development of their peers, asking various questions about sex, and girls usually become over sensitive about their weight.

In addition, the cognitive and social-emotional development is part of milestones which are present along the lifespan. Dosman and Andrews (2012, pp. 75–76) stipulated the above developmental milestones to cause the innovative and abstract reasoning skills that make them think to be the only one who experienced feelings and emotions, demonstrate an intensified level of self-consciousness, take unnecessary risk thinking that nothing bad can happen to them and become cause-oriented. In their study to understand normal development of adolescent sexuality, Kar and colleagues (2015) revealed that adolescence is characterized by a need for intimacy and sexuality with opposite sex. The Centers for Disease Control and Prevention (2016) showed the percentage of being sexually active among high school adolescents students to be about one third (30.1 percent). Adolescents get various types of information about sexuality which contribute to major health concerns including sexually transmitted diseases and teen pregnancy (Ruffin, 2009, p. 4).

2.2.3 Prevalence of adolescents parenting

The adolescent parenting in most regions and countries have declined in the past three decades. There is an increase of age at first marriage and adolescents are more often using contraceptive methods than past two decades (World Health Organization, 2016a). The policy of education for all has been implemented in many countries which lead to the increased number of educated girls and boys. This education contributed to the reduction of early childbearing in some countries (Sedgh *et al.*, 2015). Other countries like Rwanda laid behind with an increase of adolescent parenting (NISR, MOH and ICF, 2015).

The study of Vincent and Alemu (2016, p. 28) has shown that about 16 millions of adolescent girls aged between 15 to 19 years give birth each year. The prevalence of girls under 15 years that give birth every year from mostly low and middle-income countries LMIC stands at one million (World Health Organization, 2016b). Ten percent of girls from LMIC give birth before attaining 16 years of age and they are most common in Sub-Saharan Africa, South-Central, and South-Eastern Asia. The proportion of pregnancies in adolescents less than 15 years of age vary extremely in LMIC, the example of Rwanda which is at 0.3% versus 12.2% of Mozambique (World Health Organization, 2016a). The sub-Saharan Africa has the highest adolescent pregnancy rate habitually associated with early marriage where more than 30% of girls marry before the age of 18, around 14% of girls marry before the age of 15 (World Health Organization, 2016b) and twenty five percent of girls have given birth by the age of 18 (Vincent and Alemu, 2016, p. 28).

The majority of the studies concentrate on unintended pregnancies which lead to the personalized designs of various programs to the needs of women. Even if adolescent pregnancy and childbearing in adolescence are associated with various fatal effects, it was proven that a significant proportion of these pregnancies are wanted and even planned (Mushwana *et al.*, 2015). It is beneficial for the adolescent pregnancy to be intended to have good outcomes on both the wellbeing of the mother and the child. The unintended pregnancies have adverse effects and the father is most of the time less involved in the care of the child when this happens (World Health Organization, 2016a).

2.2.4 Effects of adolescent parenting

The birth rates related to adolescent pregnancies have decreased since 1990 but 11% of all births are from adolescent girls aged from 15 to 19 years old. The complications related to adolescent pregnancy and childbearing are the second cause of girls mortality aged 15 to 19

years. It contributes to maternal and child mortality with various states of ill-health and poverty (World Health Organization, 2016b). These complications related to adolescent parenting dropped from 523000 in 1990 to 289000 in 2013. The common causes of maternal deaths include haemorrhage occupying 27%, maternal hypertensive disorders occupy 14% and sepsis occupy 11% (World Health Organization, 2015b).

The current challenges faced from adolescent pregnancy as presented by the United Nations Population Fund (2013) include the obstetric labour and fistula due to the immaturity of the adolescent to conceive with premature delivery associated with low birth weight babies (UNFPA, 2013b, p. 6). In addition, the asphyxia is high in children from adolescent mothers which lead to health problems and death (World Health Organization, 2016a).

The adolescent parenting has several effects with possible associated conditions. The sexually transmitted infections STIs that include HIV is among infections that may follow adolescent parenting due to having unprotected sexual intercourses (Tripp and Viner, 2005; Kanku and Mash, 2010, p. 564). Also, adolescents' parents are at high risk of dropping out from school and lacking a qualification that should be a base for future employment with well paid jobs (Mwaba, 2000). This leads the majority of adolescents mothers to live with the unemployed single parent or guardian and become a financial burden, one of the issues that contribute to their mental disorders (Vundule *et al.*, 2001).

A study conducted by Kanku and Mash (2010) in the selected study setting to determine attitudes, perceptions and understanding amongst teenagers regarding teenage pregnancy, sexuality and contraception revealed that adolescents being boys or girls perceive adolescent pregnancy and parenting as a negative outcome that is unexpected leading to the separation between girl and boy relationship, the lack of job, a feeling for remorseful, the blame from the family and friends, failure and difficulty to attend school activities, the risk of contracting STIs especially HIV and other infectious infections, abortion and related complications such as secondary infertility and early pregnancy related complications (Kanku and Mash, 2010).

2.2.5 Ways to mitigate adolescent parenting

The World Health Organization published guidelines to prevent early pregnancy and poor reproductive outcomes that lead to major public health concerns caused by the adolescent pregnancy and parenting (World Health Organization, 2011; Chandra-Mouli, Camacho and

Michaud, 2013). The published guidelines are classified into main domains and include the prevention of early marriage, increasing the use of contraception, increasing education opportunities for both girls and boys, economic and social support programs, the sexuality education, reducing coerced sex, preventing unsafe abortion; and increasing the frequent consultations for the safety of prenatal care, childbirth, and postpartum care programmes (World Health Organization, 2011).

The developing countries were reported to have the high prevalence of adolescent pregnancy and birth (UNFPA, 2013a, p. 17). Following the published guidelines from the World Health Organization, there should be clear and effective legal prohibition and the plan for enrolling girls in schools be reinforced by the community leaders to prevent early marriage. As this kind of prevention must be collaborative, the community leaders must lead all efforts by making the community aware of the effects of early adolescent pregnancy.

Forke and colleagues (2011, p.1) stipulated that efforts from states, institutions and health care providers should deliver education and services for comprehensive reproductive health that are affordable to adolescents. The reproductive health services offered should be made confidential by states to facilitate their use by adolescents. Adolescents should have access to confidential voluntary counselling and testing, condoms and other health support to remove barriers to services, own the results from testing without a disclosure or request for consents from third parties. The legal provision to exercise these rights by adolescents should relate to states' policies and their compliance in health care providers (Binagwaho *et al.*, 2012).

2.3. EMPIRICAL LITERATURE

The studies to determine perceptions of adolescent parenting among school adolescent students were conducted in various settings with different results. This section of literature review describes factors that contribute to adolescent parenting and perceptions of parenting among adolescents.

2.3.1 Factors contributing to adolescent parenting

The early sexual activity among adolescents leads to adolescent pregnancy. The research findings revealed the sexual activity of adolescents to be related to multiple factors.

A study conducted by Mushwana and colleagues (2015) in South Africa on factors which influence pregnancies in adolescent age revealed that poor relationship with nurses due to the difficult accessibility of health services stands as number one to increase pregnancy rate in the province. Apart from health services, a certain study conducted in South Africa revealed other contributing factors including the inadequate knowledge on sexual relationships that was at 60.7%, individual attitudes towards sex at 58.9%, pressure from peers at 56.3%, unawareness of age related pregnancy at 54.6% and children sexual exploitation at 53.1% (Mushwana *et al.*, 2015, p. 10).

Nowadays, the adolescent sexual violence is a serious health concern in many societies and lead to unwanted teen births. The systematic review of articles that were published in 11 years from 2000 to 2010 on adolescent sexual violence revealed many risk factors categorized in poor friendship or family quality, risky sexual behaviours, substance abuse, child's sex or age, use of violent media and mental health problems (Vagi *et al.*, 2013, p. 635). In addition, getting drunk, having sexual relationships and deviant friends are associated with an unwanted pregnancy (East and Hokoda, 2015, p. 1288).

Additionally, poor social status has been much indicative for adolescent pregnancies. However, child support in some countries has been a motive for many girls to have planned pregnancies. This increases the prevalence of adolescent pregnancy with the associated health effects (Mushwana *et al.*, 2015, p. 11; Sedgh *et al.*, 2015).

The concerns of adolescent pregnancy and prevention are further complicated by different factors including the economic status, geographical and community contexts, and family experience with teen parenting. Adolescent girls and boys who become parents use not to live together as married couples and even if it is done later, they are not ready to accomplish parental tasks. Studies revealed the economic status to be a strong predictor of parenting as it affects parents' psychological functioning, leading to change in parenting behaviours and adolescent's socioemotional functioning (Conger *et al.*, 2002). The evidence shows that fathers with low socioeconomic status SES showed less involvement than those with higher SES and became more restrictive and punitive with their children (Yeung *et al.*, 2001; Lansford *et al.*, 2004) while mothers with low SES were more restrictive, controlling and judgmental than those with higher SES (Querido, Warner and Eyberg, 2002; Hoskins, 2014). Similarly, Ceballo and colleague*s* (2003) revealed that adolescents living in bad

places or with high-risk neighbourhoods encounter the levels of community violence that affect their developmental stages and is associated with symptoms of depression.

However, the family structure such as single-parent or divorced families are among risk factors for adolescents to be exposed to adolescent parenting and is two to three times more likely to cause behaviour problem (Simons, Simons and Wallace, 2004; Hoskins, 2014). It was revealed that the highest rates of early sexual behaviour and pregnancy were found in adolescents who lived with their mother as a single parent by or before age five and girls were prone to adolescent pregnancies (Moore, 2001; Ellis *et al.*, 2003; Hoskins, 2014, p. 518). Flouri and Buchanan (2002) found that adolescents who lived closely with the nonresident father are less likely to develop depression, delinquency with a high level of self-esteem compared to those who lived with a father whom they were not close. An active non-resident father in assisting adolescents for example when setting goals or doing homework, equip the last with positive outcomes (Amato and Gilbreth, 1999; Hawkins, Amato and King, 2007; Hoskins, 2014, p. 517).

The family structure is complex and train adolescents differently. For adolescents that live in step-families experienced a poor performance at school and social competence than those living with both married biological mother and father (Hetherington, 1999; Amato and Sobolewski, 2004). The evidence showed that step-children do not respect efforts exercised by their step-fathers as they do not respect them as real parents. Similarly, step-fathers are less communicative with stepchildren by delivering less physical, emotional care and nourishment than biological fathers living with their children (Hofferth *et al.*, 2002).

Factors that lead to adolescent parenting are numerous and rely on different conditions. According to Vundule and colleagues (2001), the authors identified the big association between adolescent pregnancy and poverty, sexual coercion, testing if someone is fertile, sexual intercourses without consistent contraceptive methods, poor sexual agreement and communication with partners, perception of condom use to be linked with lack of trust and perception for imitating peers that experienced pregnancies. Kanku and Mash (2010) found that adolescent parenting is sometimes influential and sex is done among adolescents for giving pleasure to the boyfriend or vice-versa, consumption of alcohol and tobacco, poor understanding of contraception concepts, lack of organised activities to occupy adolescents during holidays, transactional sex to get needed equipment and need of child support grants offered by partners.

A study conducted by Mwaba (2000) in South Africa revealed an existence of pressure by boys/men on girls for having sex (66%) and sometimes boys/men refuse to use condoms during sexual intercourse (65%). Some adolescent girls were found to engage in sexual intercourse to verify if they could bear a child (23%) or thinking that infrequent sex could not cause them be pregnant (19%).

2.3.2 Perceptions of parenting among adolescents

The interventions designed to prevent adolescent pregnancy and parenting often base on adults' beliefs. This hinders the exploration of adolescents' perceptions regarding adolescent parenting which provide superficial influence to the development of strategies that aim to prevent adolescent pregnancy (SmithBattle, 2009; Herrman and Waterhouse, 2011, p. 578). The study conducted by Herrman (2006, 2008) revealed that adults perceive negative impacts of teen pregnancy and parenting and they often thought to have the same perceptions as adolescents. The author further highlighted that adolescent parenting was perceived to have a negative impact on friendship and social relationship, stress, sleep, career goals and increase personal responsibilities.

However, the studies have shown that perceptions of adolescents regarding adolescent parenting vary, they are negative in some adolescents and positive in others. Wiemann and colleagues (2005) found that adolescent parenting was perceived by teens to have a negative impact on adolescent parenting experience, for example, family disharmony, the lack of freedom, financial problems, school dropouts and work juggling school and parenting. In contrast to nonparenting adolescents surveyed, they noted positive perceptions regarding parenting like gaining money through child support and governmental aids, having amplified maturity, and occasions for later education after completing their mothering (Herrman and Waterhouse, 2011).

Richter and Mlambo (2005) in their study to explore and describe the perceptions of adolescent teenagers in a rural area towards teenage pregnancy revealed that adolescents, especially those attending school, were not glad to be pregnant before attaining the age of 20 perceiving pregnancy to come as a crisis because it differs from community values. Most of these pregnancies are related to poor knowledge about contraceptives use and fear for infertility. Adolescents' boys were reluctant to use condoms and most of the adolescents did not visit health care facilities for getting knowledge on contraceptive methods because of their anonymity that is not guaranteed. Pregnant adolescents or those with babies had poor

relationships with their boyfriends and were blaming each other. This affects adolescent social status especially females leading to a dishonour in when with parents or community (Richter and Mlambo, 2005, pp. 64–67).

Even if there is a decrease of friends when pregnancy happens, both rural males and females' adolescents agreed better to keep the baby and become a parent than initiating risk behaviours like abortion. The adolescent pregnancy and parenting is related to poor sex education, coercion from old boy friends, transactional sex, influence from peers, ignorance of physiological mechanisms of conception, parental influences on girls to be married earlier and their encouragement to have relationships with different sex (Richter and Mlambo, 2005, p. 65).

According to Gallup-Black and Weitzman (2004) in their study to determine urban adolescents' perceptions regarding adolescents' parenting, about 79% of adolescents responded that parents would be very disappointed if adolescents engaged in sexual activity. Over 50% of adolescents reported that is acceptable to begin sexual activity when you are 15 years old (Gallup-Black and Weitzman, 2004, p. 372).

However, there is evidence of a relationship between religious belief and adolescent pregnancy that lead to adolescent parenting (Akella and Jordan, 2015, p. 47). Adolescents with religious beliefs are less likely engaged in sexual behaviours (Trinitapoli and Regnerus, 2007, p. 505; Osafo *et al.*, 2014, p. 1) and are more likely to delay the initiation of sexual intercourses with poor use of condoms (Agha, Hutchinson and Kusanthan, 2006, pp. 551–553) and avoid abortion if they get pregnant as it is considered as killing (Akella and Jordan, 2015, p. 47). A study conducted by Osafo and colleagues (2014, p. 2) revealed a lack of association between religious beliefs and the use of condoms. The sociocultural and economic pressures in adolescents influence unsafe sexual practices particularly those living in the poorest communities (Anarfi, 1995, 2000). The religious values prevent adolescents from certain malpractices by instructing them to make good choices (Osafo *et al.*, 2014, p. 6).

a. Adolescent perception of the impact of adolescent parenting on friendship and relationship with friends, family, and parents.

Adolescent parenting has been viewed differently among adolescents. In their study to describe the perceptions of adolescents about adolescent motherhood, Smith and colleagues

(2012) revealed that parenting restricts the transition to adulthood and that the baby distance adolescent women from their social networks.

In her study, Herrman (2008) dermined adolescent perceptions on adolescent childbirths to end up with negative consequences of loosing friends, preventing participation in sport and leisure activities and being busy for always by looking after the child. Some friends provide to adolescent parents, the support and assistance to child care. In the study of Herrman, some of the respondents indicated that boys often do not take responsibilities for parenting, adolescent parenting makes life hard and decreases family cohesion while few young parents perceived adolescent parenting to impact positively the relationship of parents and provide a positive force for the family. This study also determined the presence of stigma especially in girls where adolescent parenting is perceived by some people as a fault from girls (Herrman, 2008).

b. Adolescent perception of the impact of adolescent parenting on economical and education status.

A study conducted to determine adolescents' thoughts on how their lives would change if they experienced an adolescent birth in the areas of relationships, vocation, and life impacts focuses on negative impact, revealed that adolescent birth has negative impact related to adolescent parenting and there is a loss of freedom among adolescent parents, increase of level of stress and sleep disturbances, increase of school dropouts and financial stressors, family disharmony and increase of adolescent responsibilities (Herrman and Waterhouse, 2011, p. 579).

According to Herrman (2008, pp. 46–47), her study revealed that having a baby being an adolescent decreases financial capacity. On the other hand, this study determined positive impact related to adolescent parenting that includes gaining the money to support the child, support from the government, increasing mother's maturity, and chances to complete the motherhood earlier and be free for education.

The Australian research found that young adolescent girls who adhere to school based on the covered number of educational years, school performance and favourite school program use to complete education than becoming pregnant during an adolescent period. They consider pregnancy as losing chances for a determined career, ending education and losing freedom (Smith, Skinner and Fenwick, 2012).

A study conducted by Atuyambe and colleagues (2008) in Uganda revealed that the pregnancy and parenting in adolescence significantly affect education with one third of adolescents mothers dropping out from school and is perceived to lead to the lack of employment with low social economic status.

c. Adolescent perception of the impact of adolescent parenting to life and personal characteristics.

Herrman (2008) determined beliefs of nonparenting youth and parenting youth in respect to childbearing. The positive impact of adolescent parenting has been described individually. The nonparenting youth found that being a parent during adolescent period motivate them in focusing on success. It increases judgmental skills, sense of responsibility, improved behaviour and the ability for time management and organizational skills. The current or future parenting perceived childbearing to increase responsibilities and stress. According to the study conducted by Smith and colleagues (2012) to determine perceptions of adolescent motherhood, it was positively considered as a transformative experience that increases individual growth.

2.4. CRITICAL REVIEW AND RESEARCH GAP IDENTIFICATION

A number of studies conducted by different authors focused on the perceptions of adolescents regarding parenting styles and contraceptive use, attitudes and beliefs of adolescents regarding pregnancy and parenthood among adolescents' students, experiences of pregnancy among adolescents, but still, some data are missing.

A study conducted by Herrman and Waterhouse (2011) measured the demographic variables and perspectives on the costs and rewards of teen parenting among students through the administration of the questionnaire of Thoughts on Teen Parenting Survey. This study has shown that less is known about perceptions among adolescents who are not parents and it alters programs that should intervene to prevent adolescent parenting in that group. The authors recommend that health care professionals working with adolescents should build perceptions based curricula and evaluate the effectiveness of interventions initiated to promote safe sex (Richter and Mlambo, 2005; Herrman and Waterhouse, 2011). They also recommend that studies should consider adolescent's sexual history, the number of pregnancies or parenting status. This study is criticized for pointing out various costs and

rewards regarding teen parenting but did not show negative and positive perceptions of adolescents.

Another study conducted by Kinaro (2013) on perceptions that influence the use of contraceptives among Kenyan adolescents revealed that perceptions on the capability to get contraceptives for using, health literacy for using contraceptive methods, approval from parents to use contraceptives and sexual partner collaboration on contraceptive use had a significant effect on contraception. This study achieved its aim but perceptions of adolescent parenting were out of its scope (Kinaro, 2013, pp. 4–6).

According to Michielsen and colleagues (2014) in their study to determine young Rwandans' perceptions on sex and relationships, revealed to be an experimental sex which takes place unprepared, driven by desire between adolescents of the same age, and transactional sex which occurs after negotiation between young adolescents' girls and older men/women in exchange for money or goods. No result regarding perceptions of adolescent parenting was highlighted in this study (Michielsen, Remes, Rugabo, Van Rossem, *et al.*, 2014, pp. 55–57).

According to the qualitative study conducted by Herrman (2008) to investigate perceptions of adolescents on the costs and rewards associated with births, 17 focus groups were conducted to collect individuals views. It was revealed that some young mothers perceive adolescent parenting to result in the loss of friends and changes in social life while others perceive adolescent parenting to result in holding on to true friends, making better choices in friends and activities. Also, being an adolescent parent was thought to limit educational decisions but some mothers stipulated to lead to more focus on school and doing well in school. The study recommends that additional studies may generate quantitative measures in order to determine perceptions of adolescents on adolescents' births with a large sample size of youth.

From studies' recommendations, randomization and stratified sampling techniques with a large sample size should be used in studies that evaluate adolescents' perceptions to rise the measure's reliability and the effectiveness of the findings from research (Herrman and Nandakumar, 2012). The questionnaire of Thoughts on Teen Parenting Survey (TTPS) should be administered and determine perceptions of adolescents of high and low risk.

Referring to different research findings, perceptions of adolescent parenting among high school students in Rwanda are not known. Studies that were conducted in Rwandan adolescents regarding sexual and reproductive health did not look at the above stipulated perceptions. This study aims at determining the perceptions of adolescent parenting among high school adolescent students aged 15 to 19 years from selected rural and urban schools in Rwanda and is a key for future research that will be conducted in Rwanda assessing perceptions of adolescent parenting.

2.5 THEORETICAL FRAMEWORK

When a theoretical framework is used in quantitative research, a previous theory is used to generate assumptions that are tested and results from the study may be used in various ways (Polit and Beck, 2008, p. 49). The Theory of Reasoned Action (TRA) served as a theoretical framework for this study. The TRA focuses on the relationship existing between behaviour and beliefs, attitudes, subjective norms, and intentions (Butts and Rich, 2011, p. 253). Individuals' health decisions are based on their perceptions to a certain behaviour and how they value peers or members of their family who would support or dislike their behaviour. Behaviour is most importantly determined by behavioural intentions. The TRA looks at people' attitudes towards their behaviour. It is effective in explaining behaviour when deliberate intention control is at a high level. Interventions conducted in schools and communities to evaluate certain behavioural beliefs to health indicated how some people may change while others did not change (Butts and Rich, 2011, pp. 253–254).

The theory of reasoned action was chosen for this study as it integrates the cost and reward perspectives which influence perceptions and lead to decision making (Herrman and Waterhouse, 2011, p. 580). It was found to be a suitable guide for perceived perceptions than other theories. It predicts and explains a variety of health behaviours and intentions (Butts and Rich, 2011, p. 253). As people decision making and choice of action significantly depend on their attitudes and beliefs, the TRA is appropriate to behaviour change. The key components of the theory of reasoned action include (Hasbullah *et al.*, 2014, p. 143):

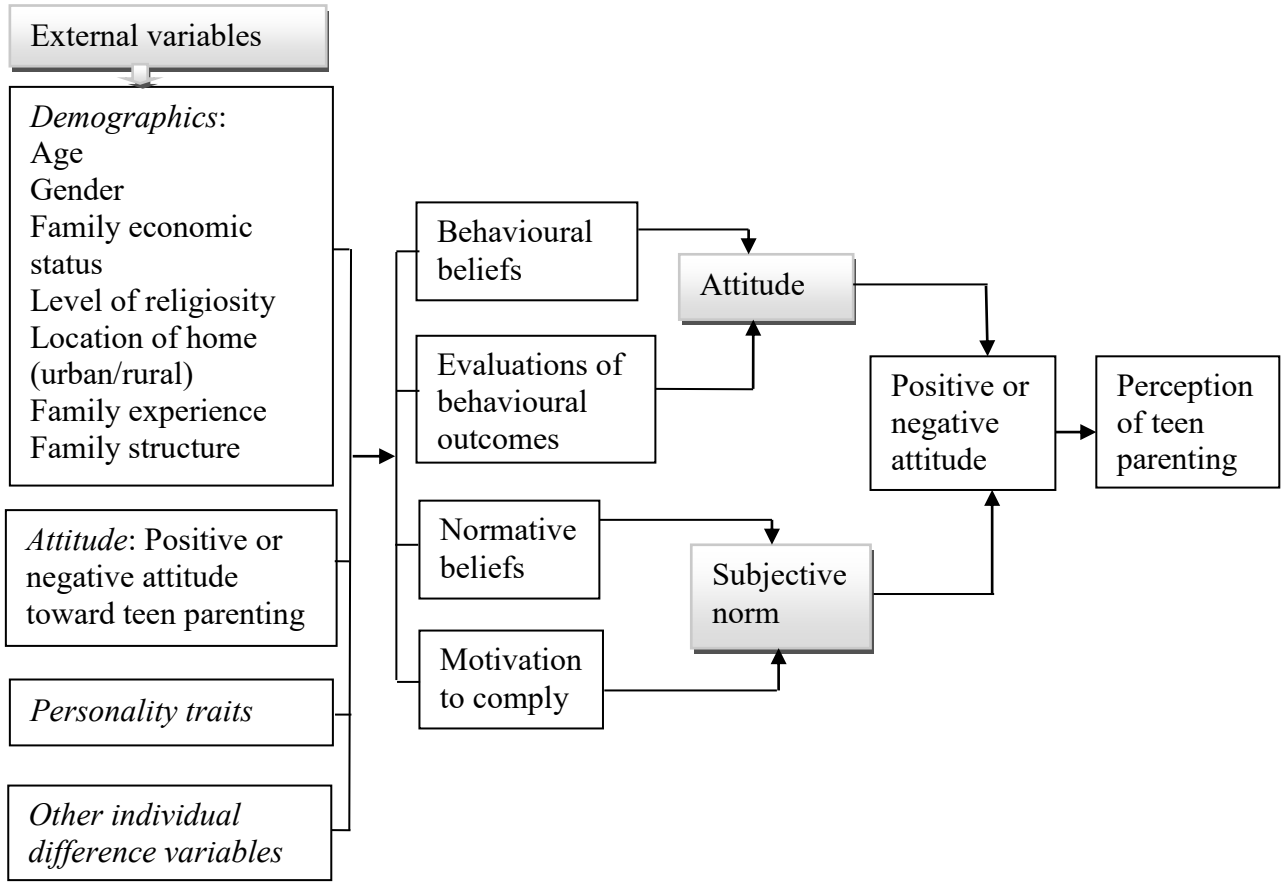
Attitudes (towards the behaviour): an extent by which an individual feeling to behave a certain way. These feelings may be positive or negative.

Subjective norms: it refers to social references on how a certain behaviour is perceived by others. The theory of reasoned action suggests that the social influence impacts beliefs of people and shape the behaviour.

Behavioural intentions: Personal perception to perform a certain behaviour.

Behaviour: action that follows behavioural intentions

Figure 1. The Theory of Reasoned Action (Adapted from Ajzen and Fishbein, 1980)



CHAPTER THREE: RESEARCH METHODOLOGY

3.1. INTRODUCTION

Research methodology is defined by Polit and Beck (2008) as a systematic investigation that improves knowledge on the important issues for a given profession, looking at all its aspects.

This chapter describes the research design and approach that were used to achieve set objectives. It also includes the study population, sample size and sampling strategy, data collection and data analysis that was done. It highlights the consideration of ethical issues and management of data, dissemination of data, limitations, and challenges that the researcher encountered.

This study aims at determining the perceptions of adolescent parenting among high school adolescent students aged 15 to 19 years from selected rural and urban schools in Rwanda.

3.2. RESEARCH DESIGN

A research design is defined as an overall plan to get knowledge through an approach that answers research questions (Rebar *et al.*, 2011, p. 175). A design use to be well organized in quantitative research, with close control over extraneous variables (Polit and Beck, 2008, p. 65). In addition, the research design determines how participants are recruited and involved in the study, the process for the study, including the timing of any activity and when the study will be completed(Rebar *et al.*, 2011, p. 175).

This study used a non-experimental descriptive and exploratory cross-sectional design. The researcher collected data from the study setting once in order to determine the perceptions of adolescent parenting among high school adolescent students at that particular time.

3.3. RESEARCH APPROACH

The research approach was quantitative in nature. Grove and colleagues (2013, p. 23) describe quantitative research as a formal, objective, systematic process by which numerical data are processed to get new information about the world. Quantitative methods focus on a comprehension and split down phenomenon into parts to evaluate the outcome (Rebar *et al.*, 2011, p. 30). The quantitative research can be descriptive, exploratory, correlational, quasi-experimental or experimental (Polit and Beck, 2008, p. 20; Grove, Burns and Gray, 2013, p.

26). This study was descriptive in nature as it describes the variables by showing frequencies for each variable and exploratory in nature, as it explores variables and their association.

3.3.1 Descriptive

Descriptive studies offer an exact interpretation of characteristics of an individual, the group or the situation by determining a new meaning of the phenomenon, describing what exists, showing how frequent something occurs and classifying information (Grove, Burns and Gray, 2013, p. 26). This study has the aim to describe the phenomena and the participants' perceptions were described.

3.3.2 Exploratory

The exploratory research explores the complete nature of the phenomenon, the way it is manifested, and the associated factors (Polit and Beck, 2008, p. 20). Therefore, the current study explored the association between demographic variables, safe sexual behaviour, and adolescents' perceptions.

3.4. RESEARCH SETTING

The study was conducted in two selected secondary schools (urban and rural) in Rwanda. The first criteria to select research settings of the study considered a school from urban area versus school from rural area referring to the Rwanda Demographic Health Survey that currently shows early first birth to be higher in rural areas compared to the urban areas. The second criteria of selection looked at a school from a district with early first birth versus a school from a district with advanced median age at first birth. The third criteria of selection considered a school from a district with early versus advanced median age in girls at first sexual intercourse.

The background to this study described one rural district from the Eastern Province to be the first to have a lowest median age in girls at first birth and one urban district from Kigali City to be the first urban district with advanced median age in girls at first sexual intercourse and at first birth. The researcher, therefore, contacted the education directorates of the above two districts fulfilling the criteria to know from each, the first school that presented many cases of adolescent students who fall pregnant by 2016. The first school from each of the two districts was taken as a research setting.

The rural school located in the Eastern Province has two hundred and seventy nine students aged 15-19 years. The urban school located in Kigali City has three hundred and ninety two students aged 15-19 years attending classes.

Below is the map of Rwanda showing the selected two schools of the study:

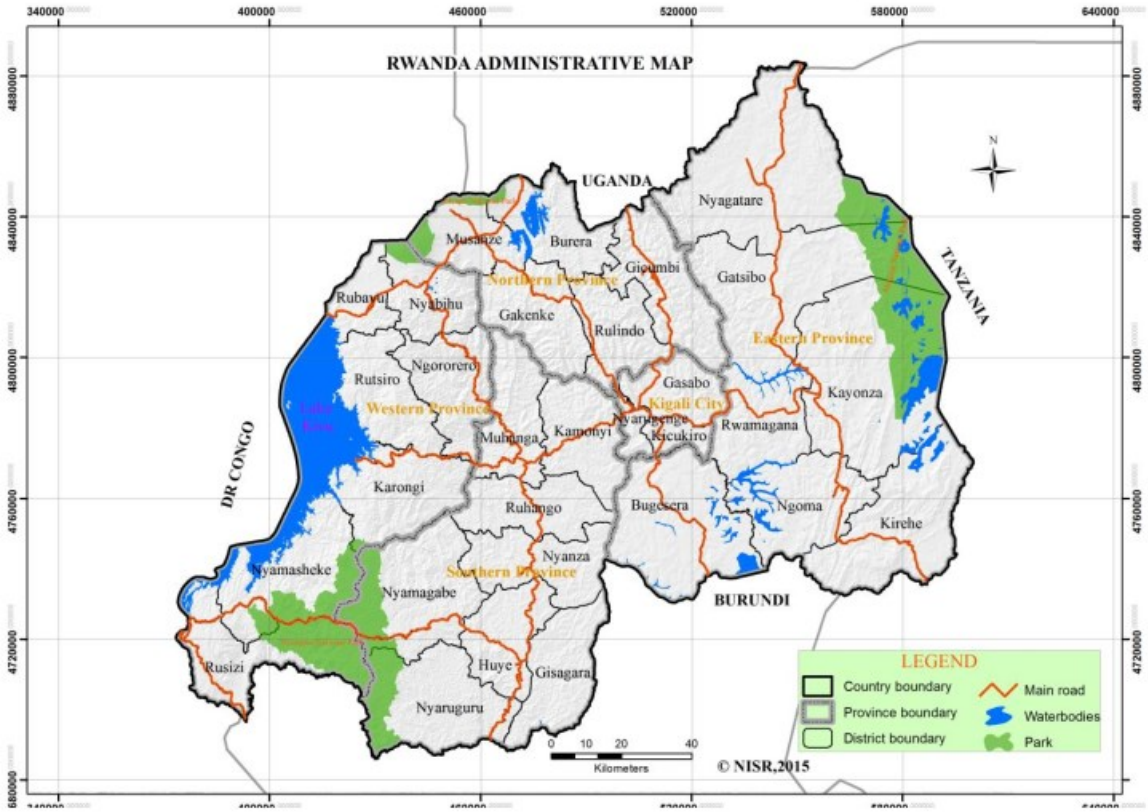


Figure 2. Map of Rwanda (NISR, 2016, p. 23)

3.5. POPULATION

A population is an entire group of individuals, substances or objects that meet inclusion criteria set by the researcher (Grove, Burns and Gray, 2013, p. 44). The population of this study comprised all students aged 15 to 19 years attending the two selected secondary schools. School registers were used to identify the number of high school students in our sampled study setting which was equal to six hundred seventy one adolescent students during the time for data collection.

3.6. SAMPLING

The sampling approaches in quantitative research refer to the process of choosing a portion of the population of interest for representation in order to draw inferences and conclusions (Polit and Beck, 2008, p. 307; Grove, Burns and Gray, 2013, p. 37). The sample was

selected from high school adolescents that fulfil inclusion criteria. Inclusion criteria that were considered to recruit respondents to this study are the following: being a high school student, being adolescent, age between 15 and 19, being available during data collection. A proportionate stratified random sampling technique was used.

3.6.1 Sample Size

To calculate the sample size, the following formula was used:

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

Where

n stands for *sample size*,

e stands for the *Margin of Error*,

N stands for the *population*.

z stands for *z-score*,

p stands for *sample proportion* or *response distribution*,

Given:

The confidence interval of 95% and the margin of Error of 5%,

The sample proportion of 50%,

The population of 671 adolescent students,

The z-score of 1.96.

The sample size is:

$$n = \frac{\frac{(1.96)^2(0.5)(1-0.5)}{(0.05)^2}}{1+\left(\frac{(1.96)^2(0.5)(1-0.5)}{(0.05)^2(671)}\right)} \quad \Rightarrow \quad n = \frac{\frac{(3.8416)(0.5)(0.5)}{(0.0025)}}{1+\left(\frac{(3.8416)(0.5)(0.5)}{(0.0025)(671)}\right)}$$

$$n = \frac{384.16}{1.57} = 244.69 \simeq 245$$

The sample size was determined to be 245 based on a total student population of 671.

3.6.2 Sampling Strategy

Grove, Burns, and Gray (2013, p. 357) describe the concept of probability sampling method as a technique with an equal chance of individuals to be selected from the population. This study used a proportionate stratified random sampling technique, a type of probability

sampling methods. This sampling technique refers to the subdivision of the population into subsets with similar characteristics from which the number of respondents to the study are selected by equal chance (Polit and Beck, 2008, p. 297) in regard to their magnitudes.

	Rural School	**Urban School**	**Total**
Population	279 students	392 students	671 students
Distribution of the population by gender	129 boys and 150 girls	178 boys and 214 girls	307 boys and 364 girls
Sample	102 students	143 students	245 students
Proportionate sample by gender	47 boys and 55 girls	65 boys and 78 girls	112 boys and 133 girls

Table 2. Proportion of students in 2 schools

The two selected secondary schools were found to have 6 different levels (classes) each with adolescents in the needed range of years but with different proportions of adolescent students aged between 15 and 19. Therefore, all levels (classes) were categorized with the proportional number of respondents to be retrieved from. This depended on the number of participants that a class possesses. A list of males and females from each class fulfilling the inclusion criteria and who accepted to participate in the study by signing the assent form was drawn before collecting the data. A total number of 671 students listed from all classes made the sampling frame.

Thereafter, a systematic random sampling was used to obtain the sample from each class. A sampling interval of 2.7 was set, considering the sample of 245 from 671 students. The selection of an appropriate number of respondents in each level/class was done and administration of questionnaires followed.

3.7. RESEARCH VALIDITY AND RELIABILITY

The successful quantitative research must have an accuracy and consistency in measurement. The instrument, questionnaire, or procedure must measure what they are supposed to measure and be consistent to what they are measuring (Rebar *et al.*, 2011, pp. 161–162).

3.7.1 Validity of the research instrument

The validity is the degree to which an instrument measures what it is supposed to measure (Polit and Beck, 2008, p. 422). In this study, the content and construct validity were ensured when categorizing items of the questionnaire against the research objectives, the literature review and the theoretical framework. The data collection tool used, is an existing developed and approved questionnaire to assess adolescent perceptions of teen parenting and was adapted to fit the Rwandan context. The questionnaire was given to adolescent reproductive health content experts, to test its consistency and accuracy. The questionnaire was fairly easy to read.

The internal validity was controlled by avoiding the use of complicated and confusing words in data collection tools. The questionnaire was translated from English into the local language by the expert in English-Kinyarwanda with understandable words and the researcher pretested the translated questionnaire before conducting the main study.

The external validity was controlled by selecting a representative sample size from the sampling frame with a random sampling of participants. The research assistants were trained on the use of the questionnaire prior to the study, and researcher and research assistants selected participants at random, making sure that all participants fulfil the inclusion criteria to prevent selection bias.

3.7.2 Reliability

The reliability of an instrument refers to the consistency with which it measures the target attribute (Polit and Beck, 2008, p. 416). In other words, there must be the same results which are true if the feature being measured has not changed (Polit and Beck, 2008, p. 416; Rebar *et al.*, 2011, p. 162). In this study, the reliability was controlled by administering the questionnaire to 10 respondents fulfilling the inclusion criteria for piloting to refine the methodology and make sure for the usefulness of the questionnaire, a pilot study which has been successful. Therefore, the researcher calculated the internal consistency reliability coefficient. The questionnaire had 63 items and the Cronbach's alpha test was .912, the value which shows that items were completely connected or related to each other at 91% (Rebar *et al.*, 2011, p. 163).

3.8 DATA COLLECTION

Data collection assisted the researcher in gathering information from respondents. A structured data collection approach was used and a self-administered questionnaire containing closed questions was administered to respondents.

All participants were given the same questionnaire with predetermined and standardized words. The order of questions was kept uniform and possible responses were given to participants in order to choose the corresponding one, the approach that facilitated the quantification of the findings. The data collection instrument, pilot study, and data collection procedure are below described.

3.8.1 Data collection Instrument

The *Thoughts on Teen Parenting Survey* (TTPS) tool (Herrman & Nandakumar, 2012) was adapted by making revisions of its contents and used to collect data. The TTPS is a Likert-style paper and pencil self-report survey consisting of two sections. **Part A** contains demographic information including age, gender, economic status, the level of religiosity, the location of home (urban vs rural), family experience with teen parenting (parent and sibling) and family structure. In this study, low economic status was defined referring to financial assistance for food, school fees, school materials or eligibility for free Community Based Health Insurance. The level of religiosity was defined as attending any religious functions at least once per month. The family experience with teen parenting was assessed by the presence of parent or sibling who had a teen pregnancy.

Part B, entitled the Perceptions of Teen Births Scale (PTBS), includes 44 items designed to assess teens' perception of the costs and rewards associated with teen parenting. Costs are defined as the perceived negative aspects of the parenting experience and rewards are defined as the perceived positive aspects related to birth and having a child. Individuals are asked to determine the level to which they agree with statements about the impact a teen birth would have on their lives using the responses, strongly disagree, disagree, neutral, agree, strongly agree. The subscales of the TTPS include Relationships (friends, boyfriend/girlfriend, and family), Vocations (education, work, and money), and Life Impacts (personal characteristics and life in general). A cumulative score was calculated by summing the responses from the subscales. A higher score represents a more positive perception of teen parenting (higher rewards, lower costs). A lower score indicates a more negative perception of teen parenting (lower rewards, higher costs). The minimum possible

score for this scale is 44, and the maximum is 220.

Revision of Thoughts on Teen Parenting Survey

The TTPS was revised to include an additional section in order to respond to research questions and theoretical framework. **Part C** looks at the sexual intercourse related behaviours and the use of condom among respondents. The revised TTPS was translated in Kinyarwanda by the expert in English-Kinyarwanda, the native language of respondents.

The TTPS has previously demonstrated strong internal consistency, with alpha levels ranging from 0.89 to 0.93 (Herrman & Nandakumar, 2012; Herrman & Waterhouse, 2011). Therefore, after revision and pretesting of TTPS, the researcher calculated a Cronbach's alpha to determine the internal consistency of the questionnaire since it has not been used in this population of the study. The Cronbach's alpha has been 0.912.

3.8.2. Pilot study

The revised questionnaire was pretested among 10 secondary students aged 15-19 years of age. This was to determine whether the present study is feasible in terms of availability of study subjects and also studying the cost and timeframe of the study. The pilot study is useful to develop or enhance a research instrument and examine its reliability and validity, detect problems with a study design, and to determine if the sampling technique and data analysis techniques are effective (Grove, Burns and Gray, 2013, p. 46). Therefore, a careful review of the constructed questionnaire in terms of clarity, readability, appropriateness to the Rwandan context and validity of the questions was done for the usefulness of the questionnaire. The results from the pilot study were used for testing the validity and reliability of the questionnaire only, they were then kept and the used respondents in the pilot study were not included in the main study.

3.8.3. Data collection procedure

The researcher provided a written request to the school headmasters to conduct the study. Once the permission secured, the researcher met students on the general assembly organized by the school and explained the aim, objectives, benefits and inclusion criteria to the study. The researcher and two research assistants who were trained in data collection by the researcher and who were given the questionnaire sample before to be familiar with questions to ensure uniformity of the process welcomed students that fulfil inclusion criteria and who accept to take part in the study.

In collaboration with the high school administration, the researcher organized the meeting with the parents/guardians where he explained the research process. From the meeting, the researcher made all parents/guardians understood the purpose and significance of the study. He promised the confidentiality of the research process and good data management. Thereafter, parents/guardians were requested to voluntarily accept if their children may take part in the study. A consent from the parents/guardians to allow students participate in the study was given and were requested the signature as a sign of agreement.

Students have fully explained the study in Kinyarwanda and alternatively in English to those who do better understand English than Kinyarwanda. The purpose of the study, its significance, and methods to be used were explained. Participants were assured of privacy for the information that was provided and effective responses to questions they raised regarding the study. Withdrawing from the study was explained as the right of any participant. Participants that voluntarily accept to take part in the study were requested to sign the assent form. The sampling frame was used as a reference to monitor the submission of signed assents and consent forms. Selection of an appropriate number of respondents in each level/class was done, followed by the administration of questionnaires and students were given 45 minutes to fill the questionnaire. Thereafter, the researcher and two research assistants started collecting questionnaires from those who completed filling.

3.9. DATA ANALYSIS

Data collected from the respondents were entered, categorized and analysed by SPSS Statistics version 20. Descriptive statistics were used to analyse the frequency, distributions, means and standard deviations, and percentages. Descriptive categories included age, gender, economic status, the level of religiosity, the location of home (urban versus rural), family experience with teen parenting (parent and sibling) and family structure.

The independent variables from collected data were computed by bivariate analysis, chi-square and multivariate analysis to test the association between the demographic variables, safe sexual behaviour and adolescents' perceptions regarding teen parenting. The strength of association between dependent and independent variables was determined by estimating the confidence interval of 95 % and the probability of less than 0.05 was taken as statistically significant. The data were presented in tables and the treatment of the text was made in Microsoft Office Word.

3.10 ETHICAL CONSIDERATIONS

The research using humans as study participants must ensure that human rights are conserved (Polit and Beck, 2008, p. 141). Grove and colleagues recommend that a research that is done ethically must protect rights of study participants, obtain informed consents from the study participants, get approval from the institutional review board after submitting a research proposal and balance benefits and risks in a study (Grove, Burns and Gray, 2013, p. 159).

3.10.1 Permission

The research proposal was approved by the UR-CMHS Institutional Review Board that issued an ethical clearance and the headmasters of two selected secondary schools of the study issued permission letters to conduct a study in their respective schools.

3.10.2 Beneficence and Right to self-determination

Prospective participants with sufficient information regarding the nature of the research and its possible risks and benefits are in a position to make appropriate decisions, permitting them to consent to or decline participation voluntarily from the study (Polit and Beck, 2008, pp. 150–151).

The participants were assured of the right to self-determination, explained that the study is part of the academic requirement and that data obtained are for research purposes only and will be kept confidentially. The research purpose and its significance, the nature of the questionnaire and procedure to use when collecting the data were fully explained to participants. The participants were explained that it is voluntary to take part in the study with rights to withdraw or withhold information at any time without any related consequence. The researcher assured that there is no potential risk from participation and that everyone will have the equal chance to be selected for the study to meet the required sample. In addition, the participants were informed that there is no compensation in terms of money associated with participation in the study. The contact information of the researcher, the Chairperson of UR-CMHS/IRB and Deputy Chairperson of UR-CMHS/IRB were provided to research participants.

3.10.3 Consent, anonymity and confidentiality

Research participants have the right to take part in the study and expect that any data they provide will be kept confidentially without the linkage of participants to their data (Polit and Beck, 2008, p. 149).

Adolescents' students that were interested in participating in the study were identified and signed assents forms. Signed parental/guardian informed consents were obtained for adolescents to participate in the study. The research participants' anonymity and confidentiality were assured by giving a code to each participant and using those codes instead of their names when filling the questionnaire. Responses were treated strictly confidentially and the filled questionnaires were kept in a locked filing cupboard in the researcher's room and the data in soft copy was saved in a separate password protected computer files to be accessed by only the researcher and research supervisor.

3.11. DATA MANAGEMENT

All filled questionnaires were kept confidential in a locked cupboard in the researcher's room for a period of five years then destroyed. Data on the computer is password protected to only be viewed by the researcher and research supervisor. Results from the study were reported to the supervisor and staff from the Masters of Science in the nursing program. The dissertation is to be submitted to the Directorate of Postgraduate studies at UR-CMHS with a copy to the school of nursing and midwifery. The publication of study findings will be done in scientific journals.

3.12. DATA DISSEMINATION

The findings from this study will be disseminated to different stakeholders that may have positive influence referring to the recommendations made. The findings will also be published in scientific journals and the selected schools of the study will be given a copy.

3.13. LIMITATIONS AND CHALLENGES

The objectives of this study were achieved. A number of limitations and challenges encountered during this study are below described:

The financial constraints and the time which is not elastic caused the researcher to limit the study in one rural school and one urban school. Therefore, the results from the study ca not be generalized to all schools of Rwanda.

The perceptions of adolescents were determined through Likert scaled questions. This type of questions is widely used and preferred as participants feel free to select one item of their choice but it may encourage participants that rate to select middle responses especially when the question is not clear and cause Central tendency bias. To minimize this bias, the questionnaire used was checked by various experts and the response-set bias was avoided by phrasing some scale items negatively and other items positively.

Selected schools of the study may differ from them and also from others which prohibit results to be generalized for all schools due to possible divergences in results.

This study was conducted with adolescents attending secondary school. The selected public secondary schools of this study are free of charge to all attending students and the determined perceptions cannot be generalized to adolescents who did not attend secondary school as perceptions may differ.

3.14 CONCLUSION TO CHAPTER THREE

This chapter discussed the research methodology that was used in this study. It discusses the study design that was used, the sampling and data collection procedure. It also shows the validity and reliability of the questionnaire that was used. It finally shows how the ethical implication was considered, data management and data dissemination.

CHAPTER FOUR: RESULTS

4.1 INTRODUCTION

This chapter presents the research findings. The results from this study are presented to answer the research questions starting from socio-demographic characteristics of the respondents, followed by the perceptions of adolescent parenting among respondents, adolescents' sexual behaviour, and the association between study variables.

All results were presented in form of graphs and tables displaying frequencies and percentages. The Perceptions of Teen Births Scale was assessed through Likert scaled questions and respondents had to choose at which level they agree with the statement (strongly disagree, disagree, neutral, agree, strongly agree). The 100% of respondents filled questionnaires accordingly. The higher the score, the better were the perceptions.

4.2 DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS

Demographic characteristics (N=245)		Frequency	Percentage
Age	15 years	40	16.3%
	16 years	60	24.5%
	17 years	54	22%
	18 years	55	22.4%
	19 years	36	14.7%
Gender	Female	133	54.3%
	Male	112	45.7%
Possible financial assistance to the family	Yes	33	13.5%
	No	150	61.2%
	Not sure	62	25.3%
Family assistance received by the family	No family assistance	212	86.5%
	Food	5	2%
	School fees	3	1.2%
	School materials	3	1.2%
	Community Health Insurance	14	5.7%
	Food, school fees, and materials, community health insurance	8	3.3%
Being religious or a spiritual person	Yes	236	96.3%
	No	6	2.4%
	Not sure	3	1.2%
Attendance to any spiritual or religious groups at least once per month	Yes	201	82%
	No	44	18%
Having a sister or brother who had an adolescent pregnancy	Yes	78	31.8%
	No	147	60%
	Not sure	20	8.2%
Having a parent who has been an adolescent parent	Yes	21	8.6%
	No	184	75.1%
	Not sure	40	16.3%
Living place	Urban	88	35.9%
	Suburban	98	40%
	Rural	59	24.1%
The one living with	Parent	76	31%
	Adult/relative	19	7.8%
	Adult/non-relative	4	1.6%
	Parents	127	51.8%
	Parent Partner	9	3.7%
	None of the Above	10	4.1%
Pregnancy status	Yes	4	1.6%
	No	227	92.7%
	Not sure	14	5.7%

Demographic characteristics (N=245)		Frequency	Percentage
Have children	Yes	9	3.7%
	No	236	96.3%
Number of children	No child	236	96.3%
	1 child	4	1.6%
	2 children	2	0.8%
	More than 3 children	3	1.2%

Table 3. Demographic characteristics of respondents (N=245)

Age of the respondents

The table 3 shows that 16.3% of the respondents were 15 years old, 24.5% were 16 years old, 22% were 17 years old, 22.4% were 18 years old and 14.7% were 19 years old.

Gender of the respondents

Of the respondents, 54.3% were females and 45.7% were males.

Possible financial assistance to the family of respondents

Of the respondents, 13.5% received possible financial assistance to their family, 61.2% did not receive any financial assistance to their family and 25.3% were not sure if they receive financial assistance to their family.

Family assistance received by the family

Of the respondents who receive financial assistance to their family, 2% receive food, 1.2% receive School fees, 1.2% receive School materials, 5.7% receive Community Health Insurance and 3.3% receive the food, school fees, school materials and community health insurance.

Being religious or a spiritual

Of the respondents, 96.3% stipulated to be religious or spiritual persons, 2.4% denied to be religious or spiritual persons and 1.2% were not sure if they were religious or spiritual persons.

Attendance to any spiritual or religious groups at least once per month

Of the respondents, 82% attended to any spiritual or religious groups at least once per month and 18% did not attend to any spiritual or religious groups at least once per month.

Having a sister or brother who had an adolescent pregnancy

Of the respondents, 31.8% had a sister or brother who had an adolescent pregnancy, 60% did not have a sister or brother who had an adolescent pregnancy and 8.2% were not sure if they had a sister or brother who had an adolescent pregnancy.

Having a parent who was an adolescent parent

Of the respondents, 8.6% had a parent who has been an adolescent parent, 75.1% did not have a parent who has been an adolescent parent and 16.3% were not sure if they had a parent who has been an adolescent parent.

Living place

Of the respondents, 35.9% were living in urban area, 40% were living in the suburban area and 24.1% were living in rural area.

The one living with

Of the respondents, 31% were living with one parent, 7.8% were living with a relative adult person, 1.6% were living with a non-relative adult person, 51.8% were living with both parents, 3.7% were living with a parent partner and 4.1% were living with anyone from the listed people.

Pregnancy status of the respondents

Of the respondents, 1.6% were pregnant, 92.7% were not pregnant and 5.7% were not sure if they were pregnant.

Respondents and having children

Of the respondents, 96.3% did not have children and 3.7% had children.

Number of children of the respondents

Of the respondents who had children, 1.6% had 1 child, 0.8% had 2 children and 1.2% had more than 3 children.

4.3 PERCEPTIONS OF ADOLESCENTS REGARDING POSITIVE OR NEGATIVE ASPECTS OF TEEN PARENTING

4.3.1 Perceptions on how adolescent parenting would impact the relationship with peers

Having a baby as an adolescent:	Strongly disagree		Disagree		Neutral		Agree		Strongly agree	
	Frequency	*Percentage*	*Frequency*	*Percentage*	*Frequency*	*Percentage*	*Frequency*	*Percentage*	*Frequency*	*Percentage*
Increases the number of friends.	124	50.6	52	21.2	53	21.6	8	3.3	8	3.3
Decreases time to spend with friends.	48	19.6	29	11.8	39	15.9	60	24.5	69	28.2
Causes loss of friends.	39	15.9	48	19.6	57	23.3	51	20.8	50	20.4

Table 4. Perceptions on how adolescent parenting would impact the relationship with peers (N=245)

Respondents presented various perceptions on the relationship between adolescent parents and their peers. Each of the specified statements above was answered by 245 respondents by disagreeing or agreeing with the statements in order to score their perceptions and some of the respondents became neutral. Statements were some evaluating the cost and others evaluating the rewards of adolescent parenting.

The majority of respondents (71.8%) disagreed and strongly disagreed that being an adolescent parent would increase their number of friends and 52.7% agreed and strongly agreed that time to spend with friends would be decreased. Forty-one percent agreed and strongly agreed to have a baby would cause a loss of friends.

4.3.2 Perceptions on how adolescent parenting would impact the relationship with a boyfriend or girlfriend

Having a baby as an adolescent:	Strongly disagree		Disagree		Neutral		Agree		Strongly Agree	
	Frequency	*Percentage*	*Frequency*	*Percentage*	*Frequency*	*Percentage*	*Frequency*	*Percentage*	*Frequency*	*Percentage*
Brings boyfriends and girlfriends closer.	94	38.4	49	20	37	15.1	38	15.5	27	11
Makes the boyfriend stay in a relationship with the mother of the baby.	69	28.2	56	22.9	38	15.5	51	20.8	31	12.7
Makes couples break up.	55	22.4	47	19.2	54	22	51	20.8	38	15.5
Makes boys feel more like men.	32	13.1	50	20.4	51	20.8	66	26.9	46	18.8
Is easy since adolescent parents share child care responsibilities more than older parents.	92	37.6	46	18.8	49	20	34	13.9	24	9.8
Is usually an unwelcome surprise.	45	18.4	44	18	67	27.3	48	19.6	41	16.7

Table 5. Perceptions on how adolescent parenting would impact the relationship with a boyfriend or girlfriend (N=245)

Respondents presented various perceptions on the relationship between adolescent parents and their boyfriends or girlfriends. Each of the specified statements above was answered by 245 respondents by disagreeing or agreeing with the statements in order to score their perceptions and some of the respondents became neutral. Statements were some evaluating the cost and others evaluating the rewards of adolescent parenting.

More than half of respondents disagreed and strongly disagreed that having a baby as an adolescent would bring boyfriends and girlfriends closer and would make the boyfriend stay in a relationship with the mother of the baby (58.4% and 51.1% respectively). Fifty-six percent disagreed and strongly disagreed that having a baby would be easy since adolescent parents share child care responsibilities more than older parents. Regarding the perception that a baby would be an unwelcome surprise, 36.4 disagreed and strongly disagreed, 36.3 agreed and strongly agreed and 20.8% were neutral. Almost half of respondents (45.7%) agreed and strongly agreed that being an adolescent parent would make boys feel more like men.

4.3.3 Perceptions on how adolescent parenting would impact the relationships with family and parents/guardians

Having a baby as an adolescent:	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
	Frequency	*Percentage*	*Frequency*	*Percentage*	*Frequency*	*Percentage*	*Frequency*	*Percentage*	*Frequency*	*Percentage*
Would conflict with family's values.	39	15.9	14	5.7	28	11.4	67	27.3	97	39.6
Would cause parents/guardians to be angry.	20	8.2	14	5.7	23	9.4	75	30.6	113	46.1
Would cause the family to be closer.	100	40.8	70	28.6	39	15.9	21	8.6	15	6.1
Would cause the family to help with babysitting.	60	24.5	55	22.4	80	32.7	38	15.5	12	4.9

Table 6. Perceptions on how adolescent parenting would impact the relationships with family and parents/guardians (N=245)

Respondents presented various perceptions on the relationship between adolescent parents and their families and parents/guardians. Each of the specified statements above was answered by 245 respondents by disagreeing or agreeing with the statements in order to score their perceptions and some of the respondents became neutral. Statements were some evaluating the cost and others evaluating the rewards of adolescent parenting.

Respondents agreed and strongly agreed that having a baby would conflict with their family's values and cause parents/guardians to be angry (66.9% and 76.7% respectively). Sixty-nine percent disagreed and strongly disagreed that having a baby would cause the family to be closer and 46.9% disagreed and strongly disagreed that the family would help with babysitting.

4.3.4 Perceptions on how adolescent parenting would impact the financial status

If I had a baby as an adolescent:	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
	Frequency	*Percentage*	*Frequency*	*Percentage*	*Frequency*	*Percentage*	*Frequency*	*Percentage*	*Frequency*	*Percentage*
I would need more money.	26	10.6	14	5.7	18	7.3	79	32.2	108	44.1
Money would not be problem.	107	43.7	46	18.8	40	16.3	24	9.8	28	11.4
My family and I would be short of money.	44	18	42	17.1	57	23.3	53	21.6	49	20
I would have to learn how to budget more.	57	23.3	43	17.6	35	14.3	59	24.1	51	20.8
I would have to get a job/another job.	46	18.8	35	14.3	38	15.5	70	28.6	56	22.9

Table 7. Perceptions on how adolescent parenting would impact the financial status (N=245)

Respondents presented various perceptions on how adolescent parenting impact financial status. Each of the specified statements above was answered by 245 respondents by disagreeing or agreeing with the statements in order to score their perceptions and some of the respondents became neutral. Statements were some evaluating the cost and others evaluating the rewards of adolescent parenting.

Of the 245 respondents, the majority (76.3 %) agreed or strongly agreed that they would need more money if they had a baby and 41.6% believed that they and their family would be short of money. Fifty-one percent agreed and strongly agreed that they would need to get another job if they were an adolescent parent.

4.3.5 Perceptions on how adolescent parenting would impact the education

If I had a baby as an adolescent:	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
	Frequency	*Percentage*	*Frequency*	*Percentage*	*Frequency*	*Percentage*	*Frequency*	*Percentage*	*Frequency*	*Percentage*
I would be more likely to graduate from high school.	143	58.4	52	21.2	25	10.2	14	5.7	11	4.5
I would easily juggle (balance) school and being a parent.	27	11	25	10.2	56	22.9	70	28.6	67	27.3
I would drop out of school.	50	20.4	28	11.4	47	19.2	62	25.3	58	23.7
I would do better in school.	132	53.9	57	23.3	26	10.6	18	7.3	12	4.9

Table 8. Perceptions on how adolescent parenting would impact the education (N=245)

Respondents presented various perceptions on how adolescent parenting impact education. Each of the specified statements above was answered by 245 respondents by disagreeing or agreeing with the statements in order to score their perceptions and some of the respondents became neutral. Statements were some evaluating the cost and others evaluating the rewards of adolescent parenting.

The majority of the respondents, 79.6% disagreed or strongly disagreed that they would be likely to graduate from high school if they became an adolescent parent. Almost half (49%) of the respondents agreed or strongly agreed that they would drop out of school and only 12 % of respondents agreed or strongly agreed that they would do better in school. Interestingly, 55.9 % of respondents agreed or strongly agreed that they could easily juggle (balance) school and be a parent.

4.3.6 Perceptions on how adolescent parenting would impact the career and work

If I had a baby as an adolescent:	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
	Frequency	*Percentage*	*Frequency*	*Percentage*	*Frequency*	*Percentage*	*Frequency*	*Percentage*	*Frequency*	*Percentage*
I would set higher goals for my future career.	97	39.6	52	21.2	40	16.3	39	15.9	17	6.9
I would not achieve as much in my future work.	38	15.5	22	9	32	13.1	80	32.7	73	29.8
I would still be able to reach my dreams and goals.	77	31.4	48	19.6	36	14.7	42	17.1	42	17.1
I would have a hard time juggling work and being a parent.	31	12.7	19	7.8	37	15.1	77	31.4	81	33.1

Table 9. Perceptions on how adolescent parenting would impact the career and work (N=245)

Respondents presented various perceptions on how adolescent parenting impact career and work. Each of the specified statements above was answered by 245 respondents by disagreeing or agreeing with the statements in order to score their perceptions and some of the respondents became neutral. Statements were some evaluating the cost and others evaluating the rewards of adolescent parenting.

The majority (60.8%) of the respondents disagreed or strongly disagreed that they would set higher goals for their future career if they became an adolescent parent. Sixty-two percent agreed and strongly agreed that they would not achieve as much in their future work. Only 34% agreed and strongly agreed that they would still be able to reach their dreams and goals and 64% agreed or strongly agreed that they would have a hard time juggling work and being a parent.

4.3.7 Perceptions on how adolescent parenting would impact the personal characteristics

If I had a baby as an adolescent:	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
	Frequency	*Percentage*	*Frequency*	*Percentage*	*Frequency*	*Percentage*	*Frequency*	*Percentage*	*Frequency*	*Percentage*
I would be more responsible.	70	28.6	34	13.9	39	15.9	54	22	48	19.6
I would get in more trouble.	35	14.3	23	9.4	21	8.6	79	32.2	87	35.5
I would feel better about my life.	103	42	64	26.1	35	14.3	25	10.2	18	7.3
It would conflict with my personal values.	56	22.9	35	14.3	38	15.5	55	22.4	61	24.9
I would feel bad about myself.	51	20.8	51	20.8	54	22	52	21.2	37	15.1
I would make better decisions.	44	18	24	9.8	50	20.4	81	33.1	46	18.8
I would feel more grown up.	56	22.9	49	20	44	18	64	26.1	32	13.1
It would have a bad effect on a girl's body.	27	11	21	8.6	42	17.1	60	24.5	95	38.8
I would take better care of myself.	89	36.3	55	22.4	48	19.6	31	12.7	22	9

Table 10. Perceptions on how adolescent parenting would impact the personal characteristics (N=245)

Respondents presented various perceptions on how adolescent parenting impact personal characteristics. Each of the specified statements above was answered by 245 respondents by disagreeing or agreeing with the statements in order to score their perceptions and some of the respondents became neutral. Statements were some evaluating the cost and others evaluating the rewards of adolescent parenting.

Regarding perceived increased responsibility as an adolescent parent, 41% of respondents agreed or strongly agreed that they would be more responsible and 42.5% disagreed or strongly disagreed that they would be more responsible and 15.9% were neutral. The majority of respondents agreed or strongly agreed that having a baby would have a bad effect on a girl's body and that they would get in more trouble as an adolescent parent (63.3% and 67% respectively). Only 17.5% agreed or strongly agreed that they would feel better about life and 47% agreed or strongly agreed that having a baby would conflict with personal values. Almost half of respondents disagreed or strongly disagreed that they would feel bad about themselves if they had a baby and that they would feel more grown up

(41.6% and 42.9% respectively). Fifty-eight percent disagreed or strongly disagreed that they would take better care of themselves if they became a parent.

4.3.8 Perceptions on how adolescent parenting would impact the life in general

If I had a baby as an adolescent:	Strongly disagree		Disagree		Neutral		Agree		Strongly agree	
	Frequency	*Percentage*	*Frequency*	*Percentage*	*Frequency*	*Percentage*	*Frequency*	*Percentage*	*Frequency*	*Percentage*
I would have a better life.	123	50.2	71	29	30	12.2	14	5.7	7	2.9
I would not be able to participate in sports and school activities.	49	20	49	20	31	12.7	61	24.9	55	22.4
I would lose sleep.	53	21.6	51	20.8	41	16.7	62	25.3	38	15.5
I would be upset when I found out that I (or my girlfriend) was pregnant.	36	14.7	28	11.4	37	15.1	75	30.6	69	28.2
It would make my life easier.	114	46.5	70	28.6	24	9.8	24	9.8	13	5.3
I would get more attention.	65	26.5	48	19.6	48	19.6	49	20	35	14.3
It would have a positive effect on my life.	110	44.9	76	31	27	11	12	4.9	20	8.2
My life would be more stressful.	24	9.8	29	11.8	24	9.8	77	31.4	91	37.1
I would get labelled in a bad way.	32	13.1	24	9.8	24	9.8	77	31.4	88	35.9

Table 11. Perceptions on how adolescent parenting would impact the life in general (N=245)

Respondents presented various perceptions on how adolescent parenting impact life in general. Each of the specified statements above was answered by 245 respondents by disagreeing or agreeing with the statements in order to score their perceptions and some of the respondents became neutral. Statements were some evaluating the cost and others evaluating the rewards of adolescent parenting.

Of the 245 respondents, 79.2% disagreed and strongly disagreed that they would have a better life as an adolescent parent and 46% that they would get more attention. Fifty-eight percent agreed and strongly agreed that they would be upset if they found out that they or their girlfriend were pregnant. The majority disagreed and strongly disagreed that being a parent would make their life easier and that having a baby would have a positive effect on their life (75% and 75.9% respectively). More than half agreed and strongly agreed that life

would be more stressful as an adolescent parent and that they would be labelled in a bad way for having a baby (68.5% and 67.3% respectively). Forty-seven percent agreed and strongly agreed that they would not be able to participate in sports and school activities as an adolescent parent.

4.3.9 Distribution of negative and positive perceptions about adolescent parenting

Perceptions about adolescent parenting	Frequency	Percent
Negative perceptions	111	45.3
Positive perceptions	134	54.7
Total	**245**	**100**

Table 12. Distribution of negative and positive perceptions about adolescent parenting (N=245)

Respondents were asked questions to determine their perceptions towards adolescent parenting and 54.7% showed the positive perceptions while 45.3% showed the negative perceptions.

4.4 ADOLESCENTS SEXUAL BEHAVIOR

Adolescents' sexual behaviour (N=245)		Frequency	Percent
Having done sexual intercourse	Yes	62	25.3%
	No	183	74.7%
Age of sex initiation	I have never had sex	183	74.7%
	Less than 15 years	30	12.2%
	15 years	12	4.9%
	16 years	7	2.9%
	17 years	3	1.2%
	18 years	4	1.6%
	19 years	6	2.4%
Number of partners with sexual intercourse	No partner	183	74.7%
	1 partner	19	7.8%
	Between 2 and 3 partners	16	6.5%
	More than 3 partners	27	11.0%
Use of condoms during sexual intercourse in the past	I have never had sex	183	74.7%
	Always	8	3.3%
	Often	10	4.1%
	Sometimes	4	1.6%
	Seldom	3	1.2%
	Never	37	15.1%
Likelihood to have sexual intercourse in the next 3 months	Very unlikely	152	62.0%
	Unlikely	30	12.2%
	Neither likely or unlikely	27	11.0%
	Likely	11	4.5%
	Very likely	25	10.2%
Likelihood to use a condom if have sex in the next 3 months	Very unlikely	111	45.3%
	Unlikely	41	16.7%
	Neither likely or unlikely	39	15.9%
	Likely	22	9.0%
	Very likely	32	13.1%

Table 13. Adolescents' sexual behaviour (N=245)

Having done sexual intercourse

The table 13 shows that 74.7% of the respondents did not do sexual intercourses in the past, and 25.3% of the respondents did sexual intercourses.

Age of sex initiation

Of the respondents who did sexual intercourses, 12.2% did sexual intercourse before the age of 15, 4.9% did sexual intercourse being 15 years old, 2.9% did sexual intercourse being 16 years old, 1.2% did sexual intercourse being 17 years old, 1.6% did sexual intercourse being 18 years old and 2.4% did sexual intercourse being 19 years old.

Number of partners with sexual intercourse

Of the respondents who did sexual intercourses, 7.8% had 1 partner, 6.5% had between 2 and 3 partners, and 11% had more than 3 partners.

Use of condoms during sexual intercourse in the past

Of the respondents who did sexual intercourses currently, 3.3% always used condoms, 4.1% often used condoms, 1.6% sometimes used condoms, 1.2% seldom used condoms and 15.1% never used condoms.

Likelihood to have sexual intercourse in the next 3 months

Of the respondents, 62% are very unlikely to have sexual intercourse in the next 3 months, 12.2% are unlikely to have sexual intercourse in the next 3 months, 11% are neither likely or unlikely to have sexual intercourse in the next 3 months, 4.5% are likely to have sexual intercourse in the next 3 months and 10.2% are very likely to have sexual intercourse in the next 3 months.

Likelihood to use a condom if have sex in the next 3 months

Of the respondents, 45.3% are very unlikely to use a condom if have sex in the next 3 months, 16.7% are unlikely to use a condom if have sex in the next 3 months, 15.9% are neither likely or unlikely to use a condom if have sex in the next 3 months, 9% are likely to use a condom if have sex in the next 3 months and 13.1% are very likely to use a condom if have sex in the next 3 months.

4.5 RESULTS OF ASSOCIATIONS BETWEEN VARIABLES

4.5.1 Distribution of perceptions of adolescent parenting by demographic variables after doing bivariate analysis

Demographic variables		Perceptions about adolescent parenting		P-value
		Negative perceptions (N=111)	Positive perceptions (N=134)	
Age	15 years	37.5% (n=15)	62.5% (n=25)	0.399
	16 years	43.3% (n=26)	56.7% (n=34)	
	17 years	55.6% (n=30)	44.4% (n=24)	
	18 years	47.3% (n=26)	52.7% (n=29)	
	19 years	38.9% (n=14)	61.1% (n=22)	
Gender	Female	57.1% (n=76)	42.9% (n=57)	0.001
	Male	31.2% (n=35)	68.8% (n=77)	
Possible financial assistance to the family	Yes	42.4% (n=14)	57.6% (n=19)	0.557
	No	48% (n=72)	52% (n=78)	
	Not sure	40.3% (n=25)	59.7% (n=37)	
Being religious or a spiritual person	Yes	45.8% (n=108)	54.2% (n=128)	0.369
	No	50% (n=3)	50% (n=3)	
	Not sure	0% (n=0)	100% (n=3)	
Attendance to any spiritual or religious groups at least once per month	Yes	48.8% (n=98)	51.2% (n=103)	0.02
	No	29.5% (n=13)	70.5% (n=31)	
Having a parent who was an adolescent parent	Yes	38.1% (n=8)	61.9% (n=13)	0.698
	No	46.7% (86)	53.3% (n=98)	
	Not sure	42.5% (n=17)	57.5% (n=23)	
Living place	Urban	38.6% (n=34)	61.4% (n=54)	0.182
	Suburban	52% (n=51)	48% (n=47)	
	Rural	44.1% (n=26)	55.9% (n=33)	
The one living with	Parent	46.1% (n=35)	53.9% (n=41)	0.81
	Adult/relative	31.6% (n=6)	68.4% (n=13)	
	Adult/non-relative	50% (n=2)	50% (n=2)	
	Parents	47.2% (n=60)	52.8% (n=67)	
	Parent Partner	33.3% (n=3)	66.7% (n=6)	
	None of the Above	50% (n=5)	50% (n=5)	
Pregnant status	Yes	0% (n=0)	100% (n=4)	0.03
	No	47.6% (n=108)	52.4% (n=119)	
	Not sure	21.4% (n=3)	78.6% (n=11)	
Have children	Yes	33.33% (n=3)	66.67% (n=6)	0.517
	No	45.76% (n=108)	54.24% (n=128)	

Table 14. Distribution of perceptions of adolescent parenting by demographic variables (N=245)

The cross tabulation was computed to determine the possible association between demographic variables and the perceptions of teen parenting among study respondents.

Age of the respondents by perceptions of adolescent parenting

The table 13 shows that the positive perceptions are at 62.5% among adolescents of 15 years of age, 56.7% among adolescents of 16 years of age, 44.4% among adolescents of 17 years of age, 52.7% among adolescents of 18 years of age and 61.1% among adolescents of 19 years of age. There is no statistical association between age and the perceptions about adolescent parenting (p-value is 0.399, the value which is above 0.05).

Gender of the respondents by perceptions of adolescent parenting

When the gender considered, the positive perceptions are at 42.9% in females and 68.8% in males. There is a statistical association between gender and the perceptions about adolescent parenting (p-value is 0.001, the value which is less than 0.01).

Possible financial assistance to the family by perceptions of adolescent parenting

The table 14 also shows that the positive perceptions are 57.6% among adolescents from families that get possible family assistance and 52% among adolescents from families that do not get possible family assistance. There is no statistical association between possible financial assistance to the family and the perceptions about adolescent parenting (p-value is 0.557, the value which is above 0.05).

Being religious or a spiritual person by perceptions of adolescent parenting

Among respondents, the positive perceptions are at 54.2% in those who confirm to be religious or spiritual persons and 50% in those that disagree it. There is no statistical association between being religious or a spiritual person and the perceptions about adolescent parenting (p-value is 0.369, the value which is above 0.05).

Attendance to any spiritual or religious groups at least once per month by perceptions of adolescent parenting

The positive perceptions are at 51.2% among respondents that attend to any spiritual or religious groups at least once per month and 70.5% among those who did not attend. There is a statistical association between attending to any spiritual or religious groups at least once

per month and the perceptions about adolescent parenting (p-value is 0.02, the value which is less than 0.05).

Having a parent who was an adolescent parent by perceptions of adolescent parenting

The table indicates that 61.9% of respondents who have a parent who was an adolescent parent have positive perceptions and 53.3% of respondents with parents who were not adolescent parent have positive perceptions. There is no statistical association between having a parent who was an adolescent parent and the perceptions about adolescent parenting (p-value is 0.698, the value which is above 0.05).

Living place by perceptions of adolescent parenting

Of the respondents, the positive perceptions are at 61.4% among those living in urban area, 48% among those living in the suburban area and 55.9% among those living in rural area. There is no statistical association between living place and the perceptions about adolescent parenting (p-value is 0.182, the value which is above 0.05).

The one living with by perceptions of adolescent parenting

The table shows that the positive perceptions are at 53.9% of respondents living with one parent, 68.4% of respondents living with adult person who is a relative, 50% of respondents living with adult person who is not a relative, 52.8% of respondents living with both parents and 66.7% in respondents living with step father or step mother. There is no statistical association between the one living with and the perceptions about adolescent parenting (p-value is 0.81, the value which is above 0.05).

Pregnant status by perceptions of adolescent parenting

There are no negative perceptions among respondents who are pregnant, 52.4% of those who are not pregnant have positive perceptions and 78.6% of those who are not sure if they are pregnant have positive perceptions. There is a statistical association between pregnant status and the perceptions about adolescent parenting (p-value is 0.03, the value which is less than 0.05).

Having children by perceptions of adolescent parenting

Among the respondents, the positive perceptions are at 66.67% in those who are adolescent parents and 54.24% in those who are not adolescent parents. There is no statistical association between having children and the perceptions about adolescent parenting (p-value is 0.517, the value which is above 0.05).

4.5.2 Distribution of perceptions of adolescent parenting by safe sexual behaviour after doing bivariate analysis

Safe sexual behaviour		Perceptions about adolescent parenting		P-value
		Negative perceptions (N=111)	Positive perceptions (N=134)	
Having done sexual intercourse	Yes	32.3% (n=20)	67.7% (n=42	0.017
	No	49.7% (n=91)	50.3% (n=92)	
Likelihood to have sexual intercourse in the next 3 months	Very unlikely	50.7% (n=77)	49.3% (n=75)	0.065
	Unlikely	50% (n=15)	50% (n=15)	
	Neither likely or unlikely	29.6% (n=8)	70.4% (n=19)	
	Likely	18.2% (n=2)	81.8% (n=9)	
	Very likely	36% (n=9)	64% (n=16)	
Likelihood to use a condom if have sex in the next 3 months	Very unlikely	45% (n=50)	55% (n=61)	0.266
	Unlikely	46.3% (n=19)	53.7% (n=22)	
	Neither likely or unlikely	59% (n=23)	41% (n=16)	
	Likely	36.4% (n=8)	63.6% (n=14)	
	Very likely	34.4% (n=11)	65.6% (n=21)	

Table 15. Distribution of perceptions of adolescent parenting by safe sexual behaviour (N=245)

The cross tabulation was computed to determine the possible association between safe sexual behaviour and the perceptions of teen parenting among study respondents.

Having done sexual intercourse by perceptions of adolescent parenting

The table 14 illustrates that the positive perceptions are at 67.7% of respondents who did sexual intercourse in the past and 50.3% of respondents who have never do sexual intercourse. There is a statistical association between having done sexual intercourse and the perceptions about adolescent parenting (p-value is 0.017, the value which is less than 0.05).

Likelihood to have sexual intercourse in the next 3 months by perceptions of adolescent parenting

The table 14 shows that positive perceptions are at 49.65% of respondents who are unlikely to have sexual intercourse in the next 3 months and 72.9% of respondents who are likely to have sexual intercourse in the next 3 months. There is no statistical association between

likelihood to have sexual intercourse in the next 3 months and the perceptions about adolescent parenting (p-value is 0.065, the value which is above 0.05).

Likelihood to use a condom if have sex in the next 3 months by perceptions of adolescent parenting

It is shown in table 14 that positive perceptions are at 54.35% of respondents who are unlikely to use a condom if have sex in the next 3 months and 64.6% of respondents who are likely to use a condom if have sex in the next 3 months**.** There is no statistical association between likelihood to use a condom if have sex in the next 3 months and the perceptions about adolescent parenting (p-value is 0.266, the value which is above 0.05).

4.5.3 Distribution of perceptions of adolescent parenting by statistically significant demographic variables and safe sexual behaviour after doing multinomial logistic regression

Association: OR (Odds Ratio) > 1

Protector effect: OR (Odds Ratio) < 1

Absence of association: OR (Odds Ratio) = 1

Statistically significant: CI (Confidence Interval) does not contain value 1 and $p \leq 0.05$

Association with negative perceptions of adolescent parenting			
Variables		**OR (CI 95%)**	**P-value**
Gender	Female	2.935 (1.687 - 5.106)	0.001
	Male	1	
Attendance to any spiritual or religious groups at least once per month	Yes	1.846 (0.878 - 3.879)	0.106
	No	1	
Pregnant status	Yes	4.10^{-9} (4.10^{-9} - 4.10^{-9})	
	No	3.367 (0.865 - 13.1)	0.08
	Not sure	1	
Having done sexual intercourse	Yes	0.796 (0.409 - 1.549)	0.502
	No	1	

Table 16. Distribution of negative perceptions of adolescent parenting by statistically significant demographic variables and safe sexual behaviour after doing multinomial logistic regression

The multivariate analysis shows that among four independent variables that kept the statistical association with the dependent variable in bivariate analysis, only one variable of gender positively influences negative perceptions of adolescent parenting. The variables were entered into the same equation in binary logistic regression analysis, and odds ratio with a confidence interval of 95% with upper and lower bounds calculated. For a variable to be statistically significant, the Confidence Interval must not contain value 1 and P-value must be less than or equal to 0.05.

The table 16 shows that female adolescents are 2.9 times more at risk to develop negative perceptions of adolescent parenting than males.

CHAPTER FIVE: DISCUSSION

The aim of this section is to discuss findings from this study in line with study objectives. The results were compared with the literature reviews of studies conducted by other researchers to exchange views of authors on the set objectives. There was a close monitoring of the researcher and research assistants before, during and after the participants returned back the questionnaires. The response rate was 100%.

5.1 PERCEPTIONS OF ADOLESCENTS 15-19 YEARS-OF-AGE, ATTENDING TWO SECONDARY SCHOOLS IN RWANDA, REGARDING THE POSITIVE OR NEGATIVE ASPECTS OF TEEN PARENTING

In this study, the perceptions of adolescents (15-19 years of age) regarding teen parenting were related to the effect on their life in general, education, employment, goals for the future, financial access and relationships between friends, boyfriends/girlfriends, and family. The majority of adolescents 54.7% (n=134), showed positive perceptions regarding adolescents parenting and 96.3% (n=236) of the respondents do not have children.

This is supported by the study conducted by Herrman and Waterhouse (2011) on nonparenting adolescents who revealed adolescent parenting to be associated with gaining money, increased maturity and getting the opportunity for later education when the child grows (Herrman and Waterhouse, 2011). Adolescent parenting has been positively viewed as increasing individual growth through a transformative experience (Smith, Skinner and Fenwick, 2012).

Smith and colleagues (2012) study to determine perceptions of teen motherhood in Australian adolescents, found teen parenthood to be perceived as a positive experience that promoted personal growth. Whether their pregnancy was intentional or not, the decisions to continue to childbirth among pregnant Australian female adolescents reflected a greater willingness to accept the status of being a mother at this stage of life (Smith, Skinner and Fenwick, 2012, p. 184).

Consistent with the above studies, Kinaro (2013) found that most of the discussions taking place in many homes and schools did not focus on preventing unplanned pregnancies. Some parents believed that their children should not use contraceptives due to the health hazards associated with the medication (Kinaro, 2013, p. 3,5). These beliefs influenced adolescents'

access to knowledge of prevention of pregnancies and consequences related to birth at an early age.

In contrast, a study conducted by Kanku and Mash (2010) revealed that adolescents perceived teen parenting to be an unexpected negative consequence. In this study, being a parent was associated with the separation of partners and blame and the belief that the adolescents' future would be negatively affected.

To present positive perceptions regarding adolescents parenting relates to various considerations. Rwandan adolescents have barriers regarding access to health care and literacy due to medical standards that consider them as too old for paediatric services, and by legal standards, they are considered as too young to take own decisions to control prevention, treatment, and care (Binagwaho *et al.*, 2012, p. 937). In their study to determine Rwandan young people's perceptions on sexuality and relationships, Michielsen and colleagues (2014) revealed that young people have experimental sexual relationships as they are curious and experiment with sex (Michielsen, Remes, Rugabo, Rossem, *et al.*, 2014, p. 55). Also, the fertility of adolescents in Africa is seen as childbearing and parenting mother get value from this marital status (Sekiwunga and Whyte, 2009, p. 122).

The positive perceptions may be associated with low level of health literacy that hinders adolescents from considering negative consequences associated with sexual risk behaviours but however looks at a positive side without balancing the two sides. Therefore, the sexual contacts among adolescents of the same age take place unprepared, and transactional sex occurs among older men/women and adolescent girls/boys in exchange for money or goods. The vulnerability comes from adolescents with low health literacy level regarding sexual and reproductive health topics, lack of guidance or support from adults and difficulties to have access to condoms. Participants of this study are adolescents' students from no boarding schools who meet with hundreds of peers in their free time especially away from school with less supervision from adults, the culture for many of Rwandans of being shy to talk about sexual and reproductive health at home with less information regarding sex from school affect adolescents and may orient their perceptions.

5.2 ASSOCIATION BETWEEN DEMOGRAPHIC VARIABLES AND THE PERCEPTIONS OF TEEN PARENTING AMONG ADOLESCENTS 15-19 YEARS OF AGE ATTENDING TWO SECONDARY SCHOOLS IN RWANDA

Among the participants for this study, the majority was females at 54.3% (n= 133), the attendance to any spiritual or religious groups at least once per month is at 82% (n= 201) and only 1.6% (n=4) confirmed to be pregnant. Bivariate analysis showed that there is a statistical association between gender and perceptions of an adolescent. Also, attendance at church and pregnant status were found to be statistically associated with perceptions of adolescent regarding teen parenting.

The cross tabulation showed that majority of males, 68.8% (n=77), have positive perceptions compared to females who present negative perceptions regarding adolescent parenting at 57.1% (n=76). This is in line with social prospects where females experience the majority of responsibilities related to parenting, while males do not consider the realities of parenting and its impact on their daily lives (Kegler *et al.*, 2001). In their study to determine the understanding of teen pregnancy from the perceptive of young adolescents in Oklahoma City, the negative attitudes toward parenting among females were related to loss of freedom, fewer educational and career opportunities, and a decreased ability to enjoy the social aspects of being an adolescent (Kegler *et al.*, 2001).

In contrast, a study conducted by Condon and colleagues (2001, p. 251) to assess adolescents' attitudes and beliefs about pregnancy and parenthood in a school-based intervention program revealed gender not to influence perception change in attitudes and beliefs about pregnancy and parenthood following the interaction (Condon, Donovan and Corkindale, 2001, p. 251). The fact that males do not get pregnant and are not blamed every time as females when pregnancy and parenting occurs may be a reason for variations of perceptions among males and females.

The cross tabulation showed that adolescents who do not attend to any spiritual or religious groups at least once per month present more positive perceptions 70.5% (n=31) compared to those that attend. This is in line with the study conducted by Osafo and colleagues (2014) who highlighted religious values as an umbrella that prevents adolescents from malpractices but instructs them to have risk free behaviours with less likely engagement in sexual behaviours (Osafo *et al.*, 2014). However, adolescent fertility in African context is viewed as childbearing to give value to a woman but contrary to the above findings, young

adolescents attending social gatherings like night prayers, blue movies and parties experience bad behaviours of seeing other young people having sexual related approaches as they are free from their homes where parents and siblings may be vigilant to them and once they get opportunities to imitate them, they end up with pregnancies (Sekiwunga and Whyte, 2009, p. 117,122).

All adolescents who confirmed to be pregnant, 100% (n=4), showed the positive perceptions regarding the teen parenting. These results are supported by the study conducted by Smith and colleagues (2012) on perceptions of teen motherhood in Australian adolescent females which revealed that adolescents who accept and continue with their pregnancy perceive adolescent parenting as a positive and transformative experience that influence the personal growth (Smith, Skinner and Fenwick, 2012).

Consistent with the above findings, the qualitative study conducted by Kanku and Mash (2010) to explore the attitudes, perceptions, and understanding amongst teenagers regarding teenage pregnancy, and sexuality and contraception revealed that many adolescents perceived some benefits from adolescent pregnancy. This study that involved pregnant adolescents, those who gave birth and others who had never been pregnant showed that positive attitudes towards adolescent pregnancy are seen and possible second pregnancy from adolescent mothers have been associated with the positive perception of adolescent parenting. Also from pregnancy, it is believed to get a grant, increased revenue from an older man, enjoyment of sex and proof of one's fertility. The authors concluded showing the raised negative impacts from adolescent pregnancies which include loss of education, increased burden of looking after the baby, pregnancy complications, infertility from the termination of pregnancy, the risk of HIV and STIs, unemployment (Kanku and Mash, 2010, p. 564,569).

5.3 ASSOCIATION BETWEEN POSITIVE OR NEGATIVE PERCEPTIONS OF TEEN PARENTING AND SAFE SEXUAL BEHAVIOR

The results show that more positive perceptions are found in 67.7% (n=42) of adolescents who did sexual intercourse. The bivariate analysis showed to be a statistical association between adolescents who did sexual intercourse and perceptions of adolescent parenting among high school adolescent students. This may possibly due to the fact that adolescent considers sexual intercourses to prevent loneliness, love or be loved, maintaining a

relationship and sometimes the need to be a parent and have a family (Little *et al.*, 2010, p. 338).

In contrast to the above findings, the study to determine the reproductive experiences of teenagers in one district of Ghana, 62.9% of females and 51.6% of males that have had sexual intercourse did not show a significant association between preparation for the first sexual intercourse and involvement in pregnancy among male or female adolescents (Morhe *et al.*, 2012, p. 139).

The above four variables (gender, attendance to church, pregnant status and having done sexual intercourse) kept the statistical association with the dependent variable in bivariate analysis but during multinomial logistic regression, only gender revealed to positively influence the negative perceptions of adolescent parenting. The female adolescents are 2.9 times more at risk to develop negative perceptions of adolescent parenting than males, the statistical results that are in line with descriptive figures where females have more negative than positive perceptions (57.1% versus 42.9%) while males show more positive than negative perceptions (31.2% versus 68.8%). This indicates how females are prone to negative perceptions of adolescent parenting than positive perceptions of adolescent parenting.

CHAPTER SIX: CONCLUSIONS AND RECOMMENDATIONS

6.1 INTRODUCTION

This descriptive and exploratory cross-sectional study aimed at determining the perceptions of adolescents 15-19 years of age on how their lives would change if they experienced a teen birth. The sample size of 245 participants from 671 individuals of the population was selected through proportionate stratified random sampling technique and the response rate was 100%.

Therefore, findings revealed the perceptions of adolescents regarding the positive or negative aspects of teen parenting, they determined the existing association between demographic variables and the positive or negative perceptions of teen parenting among adolescents, and also the association between positive or negative perceptions of teen parenting and safe sexual behaviour.

6.2 CONCLUSIONS

This study determined perceptions of adolescents 15-19 years-of-age, attending two selected secondary schools in Rwanda, regarding the positive or negative aspects of teen parenting.

The perceptions of adolescents about teen parenting are essential for programs that control and assist this age group. The intimate friends and peers were identified to be a source of information that shape perceptions of adolescents.

The perceptions of participants that were determined in this study revealed 54.7% with positive perceptions and 45.3% with negative perceptions regarding teen parenting. The positive perceptions regarding teen parenting among the majority of adolescents students from sampled population in Rwanda may be the cause of the annual increase of Rwandan adolescents who begun childbearing and led to school dropouts. Among the reasons of these positive perceptions of adolescents parenting, there may be difficulties to get access to health care services due to medical standards that consider adolescents as too old for paediatric services and too young to take own decisions for being treated in adult services, African context for considering childbearing as proof of fertility in adolescents, and culture

of many of Rwandan parents for not giving sexual and reproductive health related messages to their children but however get them from peers.

The bivariate analysis showed an association between demographic variables and the perceptions of teen parenting among adolescents, the negative perceptions were at 57.1% in females and 31.2% in males. In addition, the negative perceptions are at 48.8% among respondents that attend to any spiritual or religious groups at least once per month and 29.5% among those who did not attend. Also, all pregnant adolescents have positive perceptions and 47.6% from those who are not pregnant have negative perceptions. For the association between adolescents' perceptions and safe sexual behaviour, the negative perceptions of respondents who did sexual intercourse in the past were at 32.3% and 49.7% of respondents who have never do sexual intercourse.

The multivariate analysis, however, showed gender to be the only variable which is statistically significant where the female adolescents are 2.9 times more at risk to develop negative perceptions of adolescent parenting than males.

The complications related to adolescent parenting included affected education, work, money, life impacts or that associated life in general, relationships between boyfriends or girlfriends, and family. There is a need for education sessions in secondary schools to raise adolescents' awareness of growth changes and sexual reproductive health. Adolescents need friendly health services.

6.3 RECOMMENDATIONS

The recommendations for improved practice, education, research, and management were addressed to the following levels:

For the Ministry of Youth and Information and Communication Technology

To restructure and put much emphasis on educational campaigns related to sexual and reproductive health to be addressed to adolescents for reducing misbehaviour that negatively impacts their health.

To work closely with youth at the district level in Youth Empowerment for Global Opportunity for sexual and reproductive health capacity building.

Appropriate and age related messages should be the only one to be delivered by the media regarding sexuality and contraception.

For the Ministry of health

To strengthen the adolescent friendly health services and be a one-way channel of addressing adolescent parenting related complications such as maternal and infant mortality, abortion, premature deliveries, malnutrition, and fistula with the aim to prevent unintended pregnancies and promote well planned child bearing.

All health services should be delivered to adolescents including sexual and reproductive health, antenatal care and post abortion care.

For the Ministry of education

To implement school and reproductive health in the curriculum with school health programme in order to prevent school dropouts related to adolescent pregnancies and the burden of diseases and morbidity associated with positive perceptions of adolescent parenting.

The school program leaders must incorporate sex education and contraception in the students' curriculum. The contraceptive methods should be affordable to both adolescents' girls and boys, laws that punish wrongdoers of coerced sex should be enforced and empower girls on how they should resist on unwanted sex.

For the Ministry of Gender and Family Promotion

To ensure that the Rwandan adolescents are healthy with a high level of health literacy by encouraging parents to educate their children on sexual and reproductive health. This will prevent possible negative peer education transmission.

Future Research

The researcher recommends that the Ministry of Youth and Information and Communication Technology should conduct a countrywide survey of factors influencing adolescent pregnancies in Rwanda. This will provide useful information for adolescent pregnancies prevention programs. In addition, it will help the Ministry of Education to

prevent and remove identified factors from being the cause of school dropouts secondary to adolescent parenting.

The researcher also recommends a comparative study determining perceptions of adolescent parenting between adolescent students and uneducated adolescents. This will help in youth programs that focus on reproductive health.

REFERENCES

Agha, S., Hutchinson, P. and Kusanthan, T. (2006) 'The effects of religious affiliation on sexual initiation and condom use in Zambia', *Journal of Adolescent Health*, 38(5), pp. 550–555.

Akella, D. and Jordan, M. (2015) 'Impact of Social and Cultural Factors on Teen Pregnancy', *Journal of Health Disparities Research and Practice*, 8(1), pp. 41–61.

Amato, P. R. and Gilbreth, J. G. (1999) 'Nonresident fathers and children's well-being: A meta-analysis.', *J. Marriage Fam.*, 61, pp. 557–573.

Amato, P. R. and Sobolewski, J. M. (2004) 'The effects of divorce on fathers and children: Nonresidential fathers and stepfathers', *The Role of the Father in Child Development, 4th ed.*, pp. 341–367. doi: Lamb, M.E., Ed.; Wiley: Hoboken, NJ, USA.

Anarfi, J. (1995) 'The condition and care of AIDS victims in Ghana: AIDS sufferers and their relations.', *Health Transition Review*, 5(Suppl), pp. 253–263.

Anarfi, J. (2000) 'Ghanaian women and prostitution in Cote d'Ivoire. In: Kampadoo, K.; Doezema, J., editors. Global sex worker: Rights, resistance, and redefinition. Routledge; London/New York, NY', pp. 104–113.

Atuyambe, L., Mirembe, F., Tumwesigye, N. M., Annika, J., Kirumira, E. K. and Faxelid, E. (2008) 'Adolescent and adult first time mothers' health seeking practices during pregnancy and early motherhood in Wakiso district, central Uganda.', *Reproductive health*, 5, p. 13. doi: 10.1186/1742-4755-5-13.

Basinga, P., Moore, M. A., Singh, S., Remez, L., Birungi, F. and Nyirazinyoye, L. (2012) 'Unintended Pregnancy and Induced Abortion in Rwanda: Causes and Consequences', *NUR School of Public Health*, pp. 1–36.

Binagwaho, A., Fuller, A., Kerry, V., Dougherty, S., Agbonyitor, M., Wagner, C., Nzayizera, R. and Farmer, P. (2012) 'Adolescents and the right to health: Eliminating age-related barriers to HIV/AIDS services in Rwanda', *AIDS Care*, 24(7), pp. 936–942. doi: 10.1080/09540121.2011.648159.

Butts, J. B. and Rich, K. L. (2011) *Philosophies and Theories for Advanced Nursing*

Practice. Jones & Bartlett Learning, LLC.

Carbon, C.-C. (2014) 'Understanding human perception by human-made illusions.', *Frontiers in human neuroscience*, 8(July), p. 566. doi: 10.3389/fnhum.2014.00566.

Ceballo, R., Ramirez, C., Hearn, K. D. and Maltese, K. L. (2003) 'Community violence and children's psychological well-being: Does parental monitoring matter?', *J. Clin. Child Adolesc. Psychol.*, 32, pp. 586–592.

Centers for Disease Control and Prevention (2016) *Youth Risk Behavior Surveillance — United States, 2013*. Available at: http://www.cdc.gov/mmwr/preview/mmwrhtml/ss6304a1.htm Accessed on May 21, 2017.

Chandra-Mouli, V., Camacho, A. V. and Michaud, P. A. (2013) 'WHO guidelines on preventing early pregnancy and poor reproductive outcomes among adolescents in developing countries', *Journal of Adolescent Health*. Elsevier Ltd, 52(5), pp. 517–522. doi: 10.1016/j.jadohealth.2013.03.002.

Childs, G. D., Knight, C. and White, R. (2015) 'Never-Pregnant African American Adolescent Girls' Perceptions of Adolescent Pregnancy', *Journal of Pediatric Nursing*. Elsevier Inc., 30(2), pp. 310–320. doi: 10.1016/j.pedn.2014.08.012.

Condon, J. T., Donovan, J. and Corkindale, C. J. (2001) 'Adolescents' Attitudes and Beliefs About Pregnancy and Parenthood: Results from a School-Based Intervention Program', *International Journal of Adolescence and Youth*, 9(2–3), pp. 245–256. doi: 10.1080/02673843.2001.9747879.

Conger, R. D., Wallace, L. E., Sun, Y., Simons, R. L., McLoyd, V. C. and Brody, G. H. (2002) 'Economic pressure in African American families: A replication and extension of the family stress model', *Dev. Psychol*, 38, pp. 179–193.

Curtis, A. C. (2015) 'Defining Adolescence', *Journal of Adolescent and Family Health*, 7(2), pp. 1–39.

Dosman, C. and Andrews, D. (2012) 'Anticipatory guidance for cognitive and social-emotional development : Birth to five years', *Paediatric Child Health*, 17(2), pp. 75–80.

East, P. L. and Hokoda, A. (2015) 'Risk and Protective Factors for Sexual and Dating

Violence Victimization : A Longitudinal , Prospective Study of Latino and African American Adolescents', *Journal of Youth and Adolescence*. Springer US, pp. 1288–1300. doi: 10.1007/s10964-015-0273-5.

Ellis, B. J., Bates, J. E., Dodge, K. A., Fergusson, D. M., Horwood, L. J., Pettit, G. S. and Woodward, L. (2003) 'Does father absence place daughters at special risk for early sexual activity and teenage pregnancy', *Child Dev*, 74, pp. 801–821.

Fiedler, M. W., Araújo, A., Christina, M. and Souza, C. De (2015) 'The prevention of teenage pregnancy in adolescent's view', 24(1), pp. 30–37.

Flouri, E. and Buchanan, A. (2002) 'Father involvement in childhood and trouble with the police in adolescence: Findings from the 1958 British cohort.', *J. Interpers. Violence*, 17, pp. 689–701.

Forke, C. M., Mollen, C., Zlotnik, S., Kavanagh, J. E., Sell, K. and Noonan, K. (2011) 'Preventing Adolescent Pregnancy', *Evidence to Action*, 17(3), pp. 1–12.

Gallup-Black, A. and Weitzman, B. C. (2004) 'Teen pregnancy and urban youth: Competing truths, complacency, and perceptions of the problem', *Journal of Adolescent Health*, 34(5), pp. 366–375. doi: 10.1016/j.jadohealth.2003.09.010.

Grove, K. S., Burns, N. and Gray, R. J. (2013) *Practice of Nursing Research: Appraisal, Synthesis, and Generation of Evidence*. Seventh ed. St. Louis, Missouri: Elsevier Inc.

Hasbullah, N., Jumaat, A., Mad, M. and Salleh, I. (2014) 'A Conceptual Framework of Extending the Theory of Planned Behavior: The Role of Service Quality and Trust in the Consumer Cooperatives', *International Journal of Business and Social Science*, 5(12), pp. 142–148.

Hawkins, D. N., Amato, P. R. and King, V. (2007) 'Nonresident father involvement and adolescent well-being: Father effects or child effects?', *Am. Sociol. Rev.*, 72, pp. 990–1010.

Herrman, J. W. (2006) 'The Voices of Teen Mothers: The Experience of Repeat Pregnancy', *MCN Am J Matern Child Nurs*, 31(4), pp. 243–249. doi: 10.1097/00005721-200607000-00009.

Herrman, J. W. (2008) 'Adolescent perceptions of teen births', *JOGNN - Journal of*

Obstetric, Gynecologic, and Neonatal Nursing, 37(1), pp. 42–50. doi: 10.1111/j.1552-6909.2007.00201.x.

Herrman, J. W. and Nandakumar, R. (2012) 'Development of a Survey to Assess Adolescent Perceptions of Teen Parenting', *Journal of Nursing Measurement*, 20(1), pp. 3–20. doi: 10.1891/1061-3749.20.1.3.

Herrman, J. W. and Waterhouse, J. K. (2011) 'What Do Adolescents Think About Teen Parenting?', *Western Journal of Nursing Research*, 33(4), pp. 577–592. doi: 10.1177/0193945910381761.

Hetherington, E. . (1999) 'Family Functioning and the Adjustment of Adolescent Siblings in Diverse Types of Families', *Monographs of the Society for Research in Child Development*, 64, pp. 1–25. doi: Wiley: Hoboken, NJ, USA.

Hofferth, S. L., Pleck, J. H., Stueve, J. L., Bianchi, S. and Sayer, L. (2002) 'The demography of fathers: What fathers do?', *Handbook of Father Involvement: Multidisciplinary Perspectives*, pp. 63–90. doi: Tamis-LeMonda, C., Cabrera, N., Eds.; Erlbaum: Mahwah, NJ, USA.

Hoskins, D. H. (2014) 'Consequences of Parenting on Adolescent Outcomes', *Societies*, 4, pp. 506–531. doi: 10.3390/soc4030506.

INSR and ORC Macro (2006) 'Rwanda Demographic and Health Survey 2005', *Calverton, Maryland, U.S.A.: Institut National de la Statistique du Rwanda (INSR) and ORC Macro.*

Kanku, T. and Mash, R. (2010) 'Attitudes, perceptions and understanding amongst teenagers regarding teenage pregnancy, sexuality and contraception in Taung', *SA Fam Pract*, 52(6), pp. 563–572.

Kar, S. K., Choudhury, A. and Singh, A. P. (2015) 'Understanding normal development of adolescent sexuality: A bumpy ride', *Journal of Human Reproductive Sciences*, 8(2), pp. 70–74. doi: 10.4103/0974-1208.158594.

Kegler, M. C., Bird, S. T., Kyle-Moon, K. and Rodine, S. (2001) 'Understanding teen pregnancy from the perceptive of young adolescents in Oklahoma City', *Health Promotion Practice*, 2, pp. 242–254.

Kinaro, J. W. (2013) '" They Will Wonder What Kind of a Girl I Am ": Adolescent Perceptions towards Contraceptive Use in Nairobi', 2013(January), pp. 1–10. doi: 10.4236/asm.2013.31001.

Kincaid, C., Jones, J. D., Sterrett, E. and McKee, L. (2012) 'A review of parenting and adolescent sexual behavior: The moderating role of gender', *Clin Psychol*, 32(3), pp. 177–188. doi: 10.1016/j.cpr.2012.01.002.A.

Lansford, J. E., Deter-Deckard, K., Dodge, K. A., Bates, J. E. and Pettit, G. S. (2004) 'Ethnic differences in the link between physical discipline and later adolescent externalizing behaviors', *J. Psychol. Psychiatry*, 45, pp. 805–812.

Lebese, R., Maputle, S. M., Mabunda, J. . and Chauke, P. K. (2015) 'Knowledge , Attitudes and Perception of Students on Teenage Pregnancy : A Case Study of Rural Based University Students in South Africa', *Journal of Human Ecology*, 51(1,2), pp. 55–65. Available at: https://www.researchgate.net/publication/280592248%5CnKnowledge,.

Little, T., Henderson, J., Pedersen, P. and Stonecipher, L. (2010) 'Perceptions of teen pregnancy among high school students in Sweet Home, Oregon', *Health Educ J*, 69(3), pp. 333–343. doi: 10.1177/0017896910364568.

Michielsen, K., Remes, P., Rugabo, J., Van Rossem, R. and Temmerman, M. (2014) 'Rwandan young people's perceptions on sexuality and relationships: results from a qualitative study using the "mailbox technique"', *Journal of Social Aspects of HIV/AIDS*. Taylor & Francis, 11(1), pp. 51–60. doi: 10.1080/17290376.2014.927950.

Michielsen, K., Remes, P., Rugabo, J., Rossem, R. Van and Temmerman, M. (2014) 'Rwandan young people's perceptions on sexuality and relationships: Results from a qualitative study using the "mailbox technique"', *Journal of Social Aspects of HIV/AIDS*. Taylor & Francis, 11(1), pp. 51–60. doi: 10.1080/17290376.2014.927950.

MIGEPROF (2015) *Ministry of Gender and Family Promotion of the Republic of Rwanda*, *The national campaign to fight teenate pregnancy*. Available at: http://www.migeprof.gov.rw/index.php?id=61&tx_ttnews%5Btt_news%5D=201&cHash=69a08bd60ea2297ab6a4639e85cef2e9 Accessed on June 1, 2017.

MINEDUC (2014) *National School Health Strategic plan: Ministry of Education of*

Rwanda. doi: 10.1017/CBO9781107415324.004.

MOH, NISR and ICF Macro (2009) 'Rwanda Interim Demographic and Health Survey 2007-08', *Calverton, Maryland, U.S.A.: Ministry of Health (MOH) [Rwanda], National Institute of Statistics of Rwanda (NISR), and ICF Macro.*

Moore, M. R. (2001) 'Family environment and adolescent sexual debut in alternative household structures', *Social Awakening: Adolescents' Behavior as Adulthood Approaches; Michael, R., Ed.*, pp. 104–131.

Morhe, E. S. K., Tagbor, H. K., Ankobea, F. K. and Danso, K. A. (2012) 'Reproductive experiences of teenagers in the Ejisu-Juabeng district of Ghana', *International Journal of Gynecology and Obstetrics*. International Federation of Gynecology and Obstetrics, 118(2), pp. 137–140. doi: 10.1016/j.ijgo.2012.03.035.

Mushwana, L., Monareng, L., Richter, S. and Muller, H. (2015) 'Factors influencing the adolescent pregnancy rate in the Greater Giyani Municipality , Limpopo Province – South Africa', *International Journal of Africa Nursing Sciences*. Elsevier Ltd, 2, pp. 10–18. doi: 10.1016/j.ijans.2015.01.001.

Mwaba, K. (2000) 'Perceptions of teenage pregnancy among South African adolescents', *Health SA Gesondheid*, 5(3), pp. 30–33. doi: 10.4102/hsag.v5i3.35.

NISR (2016) 'Statistical Yearbook, 2016 edition (SYB2016)', *National Institute of Statistics of Rwanda (NISR)*, pp. 1–216.

NISR, MOH and ICF (2015) 'Demographic and Health Survey Key Indicators 2014-15', p. 51.

NISR, MOH and ICF International (2012) 'Rwanda Demographic and Health Survey 2010', *Calverton, Maryland, USA: National Institute of Statistics of Rwanda (NISR) [Rwanda], Ministry of Health (MOH) [Rwanda], and ICF International. 2012.*

NISR, MOH and ICF International (2015) 'Rwanda Demographic and Health Survey 2014-15: Key Indicators', *Rockville, Maryland, USA: National Institute of Statistics of Rwanda (NISR) [Rwanda], Ministry of Health (MOH) [Rwanda], and ICF International.*

NYC (2017) *National Youth Center of the Republic of Rwanda*, *Prevent Teen Pregnancy in*

Rwandan Schools! Available at: http://www.nyc.gov.rw/details/article/980/ Accessed on June 2, 2017.

Olivari, M. G., Wahn, E. H., Maridaki-Kassotaki, K., Antonopoulou, K. and Confalonieri, E. (2015) 'Adolescent perceptions of parenting styles in Sweden, Italy and Greece: An exploratory study', *Europe's Journal of Psychology*. PsychOpen, a publishing service by Leibniz Institute for Psychology Information (ZPID), Trier, Germany (www.zpid.de)., 11(2), pp. 244–258. doi: 10.5964/ejop.v11i2.887.

ONAPO and ORC Macro (2001) 'Enquête Démographique et de Santé, Rwanda 2000', *Kigali, Rwanda et Calverton, Maryland, USA : Ministère de la Santé, Office National de la Population et ORC Macro.*

Osafo, J., Asampong, E., Langmagne, S. and Ahiedeke, C. (2014) 'NIH Public Access', *J Relig Health*, pp. 1–13.

Polit, F. D. and Beck, T. C. (2008) *Nursing Research: Principles and methods*. Seventh ed. Lippincott Williams and Wilkins.

Querido, J. G., Warner, T. D. and Eyberg, S. M. (2002) 'Parenting styles and child behavior in African American families of preschool children', *J. Clin. Child Psychol.*, 31, pp. 272–277.

Rebar, R. C., Gersch, J. C., Macnee, R. C. and McCabe, S. (2011) *Understanding Nursing Research: Using Research in Evidence-Based Practice*. Third Edit. Philadelphia USA: Wolters Kluwer/ Lippincott Williams and Wilkins.

Richter, M. and Mlambo, G. (2005) 'Perceptions of rural teenagers on teenage pregnancy', *Health SA Gesondheid*, 10(2), pp. 61–69. doi: 10.4102/hsag.v10i2.195.

Ruffin, N. (2009) 'Adolescent Growth and Development', in *Virginia Cooperative Extension: College of Agriculture and Life Sciences, Virginia Polytechnic Institute and State University*, pp. 1–5.

Sedgh, G., Finer, L. B., Bankole, A., Eilers, M. A. and Singh, S. (2015) 'Adolescent pregnancy, birth, and abortion rates across countries: Levels and recent trends', *Journal of Adolescent Health*. Elsevier Inc., 56(2), pp. 223–230. doi:

10.1016/j.jadohealth.2014.09.007.

Sekiwunga, R. and Whyte, S. R. (2009) 'Poor Parenting : Teenagers ' Pregnancies in Eastern Uganda Views on Adolescent', *African Journal of Reproductive Health*, 13(4), pp. 113–127.

Simons, R. L., Simons, L. G. and Wallace, L. (2004) 'Families, Delinquency, and Crime: Links between Society's Most Fundamental Institution and Antisocial Behavior', *Oxford University Press: Oxford, UK,*.

Smith, J. L., Skinner, S. R. and Fenwick, J. (2012) 'Perceptions of teen motherhood in Australian adolescent females: Life-line or lifederailment', *Women and Birth*. Australian College of Midwives, 25(4), pp. 181–186. doi: 10.1016/j.wombi.2011.10.007.

SmithBattle, L. (2009) 'Reframing the risks and losses of teen mothering', *MCN: The American Journal of Maternal Child Nursing*, 24(2), pp. 122–128.

Trinitapoli, J. and Regnerus, M. (2007) 'Religion and HIV risk behaviors among married men: Initial results from a study in rural Sub-Saharan Africa', *Journal for the Scientific Study of Religion*, 45(4), p. 505–528.

Tripp, J. and Viner, R. (2005) 'Sexual health. Contraception and teenage pregnancy', *BMJ*, 330(7491), pp. 590–3.

UNFPA (2013a) 'ADOLESCENT PREGNANCY : A Review of the Evidence'.

UNFPA (2013b) 'Motherhood in Childhood: Facing the challenge of adolescent pregnancy', *The State of World Population*. Available at: http://www.unfpa.org.br/Arquivos/EN-SWOP2013-Report-Final.pdf Accessed on March 11, 2017.

Vagi, K. J., Rothman, E. F., Latzman, N. E., Tharp, A. T., Hall, D. M. and Breiding, M. J. (2013) 'Beyond Correlates : A Review of Risk and Protective Factors for Adolescent Dating Violence Perpetration', *Youth Adolescence*, 42, pp. 633–649. doi: 10.1007/s10964-013-9907-7.

Vincent, G. and Alemu, F. M. (2016) 'Factors contributing to , and effects of , teenage pregnancy in Juba', *South Sudan Medical Journal*, 9(2), pp. 28–31.

Vundule, C., Maforah, F., Jewkes, R. and Jordaan, E. (2001) 'Risk factors for teenage pregnancy among sexually active black adolescent in Cape Town', *S Afr Med J*, 91(1), pp. 73–80. Available at: http://archive.samj.org.za/2001 Accessed on May 13, 2017.

Wiemann, C. M., Rickert, V. I., Berenson, A. B. and Volk, R. J. (2005) 'Are pregnant adolescents stigmatized by pregnancy?', *Journal of Adolescent Health*, 36(4), p. 352.e1-352.e7. doi: 10.1016/j.jadohealth.2004.06.006.

World Health Organization (2011) *WHO Guidelines for preventing early pregnancy and poor reproductive outcomes in adolescents in developing countries.* Available at: http://www.who.int/maternal_child_adolescent/documents/preventing_early_pregnancy/en/ Accessed on April 20, 2017.

World Health Organization (2015a) *Rwanda: Maternal and Perinatal Health Profile*.

World Health Organization (2015b) *World Health Statistics 2015*. 2015th edn. Geneva: WHO.

World Health Organization (2016a) *Adolescent pregnancy: Maternal, newborn, child and adolescent health*. Available at: http://www.who.int/maternal_child_adolescent/topics/maternal/adolescent_pregnancy/en/ Accessed on January 26, 2017.

World Health Organization (2016b) *Adolescent pregnancy: Media Center*. Available at: http://www.who.int/mediacentre/factsheets/fs364/en/ Accessed on January 28, 2017.

Yeung, W. J., Sandberg, J. F., Davis-Kean, P. and Hofferth, S. L. (2001) 'Children's time with the fathers in intact families', *J. Marriage Fam.*, 63, pp. 136–154.

APPENDICES

Appendix A. APPROVAL TO USE THE QUESTIONNAIRE

UNIVERSITY OF DELAWARE

School of Nursing

McDowell Hall
University of Delaware
Newark, Delaware 19716-3710
Ph: 302/831-1253
Fax: 302/831-2382
E-mail: ud-nursing@udel.edu

September 1, 2016

Dean Dr. Donatilla Mukamana
University of Rwanda
College of Medicine and Health Sciences
School of Nursing and Midwifery
Email: donatillamu@gmail.com

Dear Dr. Mukamana:

I give my permission for **Dieudonne Kayiranga** to use and adapt the *Thoughts on Teen Parenting Survey* and associated documents in his Masters of Science program at the University of Rwanda. I wish him well in his work, research, and studies.

Please don't hesitate to contact me should you need additional information.

Sincerely,

Judith W Herrman

Judith W. Herrman, PhD, RN, ANEF, FAAN
Professor
University of Delaware, School of Nursing
jherrman@udel.edu

Appendix B. ETHICAL CLEARANCE FROM UR-CMHS

UNIVERSITY OF RWANDA — COLLEGE OF MEDICINE AND HEALTH SCIENCES

CMHS INSTITUTIONAL REVIEW BOARD (IRB)

Kigali, 16/01/2017
Ref: CMHS/IRB/090/2017

KAYIRANGA Dieudonne
School of Nursing and Midwifery, CMHS, UR

Dear KAYIRANGA Dieudonne

RE: ETHICAL CLEARANCE

Reference is made to your application for ethical clearance for the study entitled ***"Perceptions Of Adolescent Parenting Among High School Adolescent Students From selected Rural And Urban Schools In Rwanda".***

Having reviewed your protocol and found it satisfying the ethical requirements, your study is hereby granted ethical clearance. The ethical clearance is valid for one year starting from the date it is issued and shall be renewed on request. You will be required to submit the progress report and any major changes made in the proposal during the implementation stage. In addition, at the end, the IRB shall need to be given the final report of your study.

We wish you success in this important study.

JB Gahutu
IRB Vice-Chair

FOS Professor Kato J. NJUNWA
Chairperson Institutional Review Board,
College of Medicine and Health Sciences, UR

Cc:
- Principal College of Medicine and Health Sciences, UR
- University Director of Research and Postgraduate studies, UR

EMAIL: researchcenter@ur.ac.rw P.O. Box: 3286, Kigali, Rwanda WEBSITE: http://cmhs.ur.ac.rw/

Appendix C. PERMISSION TO CONDUCT A STUDY AT GROUPE SCOLAIRE RURENGE

REPUBLIC OF RWANDA

Rurenge, 10/02/2017

EASTERN PROVINCE
NYAGATARE DISTRICT
RUKOMO SECTOR
G.S RURENGE
TEL : 0788671350

To Mr. KAYIRANGA Dieudonne

Re: The permission to conduct a study

Dear Kayiranga,

Reference is made to your letter requesting for permission to conduct a study at Groupe Scolaire Rurenge with the research topic which is "*Perceptions of adolescent parenting among high school adolescent students from selected rural and urban schools in Rwanda*". Your study is much interesting and I am pleased to inform you that the requested permission is granted. I am confident that your study findings will be useful in the prevention of unwanted pregnancy.
Thank you for your interesting study.

Sincerely,

KARANGWA KAGERUKA
Headmaster

Appendix D. PERMISSION TO CONDUCT A STUDY AT GROUPE SCOLAIRE GIHOGWE

REPUBLIC OF RWANDA

Gihogwe, 4/03/2017

GASABO DISTRICT
GATSATA SECTOR
G.S GIHOGWE CATHOLIQUE

To Mr. KAYIRANGA Dieudonne

Re: Permission to conduct a study

Dear Sir,

Reference is made to your request for permission to conduct a research study entitled **Perceptions of Adolescent Parenting among High School Adolescent Students from Selected Rural and Urban Schools in Rwanda**.

The permission requested is granted as per proposed scheduled activities. I have found your study much interesting and I wish your study findings should be important for use in the prevention of unwanted adolescent parenting.

Thank you for choosing G.S Gihogwe Catholique as your study setting.

Your Sincerely,

MUSHIMIYIMANA Aimée Béata
Head Teacher of GS GIHOGWE CATHOLIQUE

Appendix E. ASSENT FORM (for student)

Research study: Perceptions of adolescent parenting among high school adolescent students from selected rural and urban schools in Rwanda

Researcher: Dieudonne Kayiranga, RN, BSN, School of Nursing and Midwifery, College of Medicine and Health Sciences, University of Rwanda.

Brief explanations of the study:

We care about your thoughts of how your life would change if you became a parent during your adolescent years. Each student will be given a code number which will not be given to anyone.
You may stop answering questions at any time and there is no penalty for stopping.
There are no known risks in doing this survey; some adolescents may feel troubled answering some questions because of their personal nature. There are no right or wrong answers to the questions and you can skip any question you like. No answers or comments will be reported or shared with the school, all answers will be reported as a group.

I confirm that I have been explained very well the reasons for the above study and all procedures that I am being asked to participate in. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily. I clearly understand what I will be required to do if I agree to take part in this study. I also know that I am free to withdraw from the study at any time if I do not want to continue. I am aware that all the information that I give and all the findings of the study may be looked at by responsible individuals and are for the use of this study. I am guaranteed anonymity for the information obtained from me as well as the findings of this study. I therefore, voluntarily agree to participate in this research project.

Participant: ……..	Person obtaining assent: …….
Signature……..	Signature……...
Date……..	Date……...

If you have questions about your rights as a research participant or the conduct of this study, you may contact the office of Research Centre of the University of Rwanda, email: researchcenter@ur.ac.rw, or call the Chairperson of CMHS-IRB on phone number 0788490522 or Deputy Chairperson of CMHS-IRB on phone number 0783340040.

Appendix F. INFORMED CONSENT FORM (for parent/guardian)

Research study: Perceptions of adolescent parenting among high school adolescent students from selected rural and urban schools in Rwanda

Researcher: Dieudonne Kayiranga, RN, BSN, School of Nursing and Midwifery, College of Medicine and Health Sciences, University of Rwanda.

Brief explanations of the study:

We care about the thoughts of your child on how her/his life would change if s/he became a parent during the adolescent years. Each student will be given a code number which will not be given to anyone.
As your child is young and is less than 20 years of age, there is a need of your approval to let her/him fill the questionnaire that evaluates her/his perceptions regarding adolescent parenting. There are no known risks in doing this survey. There are no right or wrong answers to the questions and a student can skip any question s/he likes. No answers or comments will be reported or shared with the school, all answers will be reported as a group.

I confirm that I have been explained very well the reasons for the above study and all procedures that I am being asked to participate in. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily. I clearly understand that my assistance for the study is allowing my child fill the questionnaire voluntarily. I also know that s/he is free to withdraw from the study at any time if s/he doesn't want to continue. I am aware that all the information that s/he gives and all the findings of the study may be looked at by responsible individuals and are for the use of this study only. I am guaranteed anonymity for the information obtained from her/him as well as the findings of this study. I, therefore, voluntarily agree to allow my child participate in this research project through her/his wish.

Parent/Guardian: …….	Person obtaining informed consent: …….
Signature……..	Signature…….....
Date……..	Date…….....

If you have questions about your rights as a research participant or the conduct of this study, you may contact the office of Research Centre of the University of Rwanda, email: researchcenter@ur.ac.rw, or call the Chairperson of CMHS-IRB on phone number 0788490522 or Deputy Chairperson of CMHS-IRB on phone number 0783340040.

Appendix G. QUESTIONNAIRE

Code Number: _____

Perceptions of adolescents parenting among high school students

Masters Dissertation Topic: Perceptions of adolescent parenting among high school adolescent students from selected rural and urban schools in Rwanda

Student Researcher: Dieudonne Kayiranga (Pediatric Nurse student), School of Nursing and Midwifery, College of Medicine and Health Sciences, University of Rwanda.

Instructions:
1. The questionnaire is anonymous, don't mention your name.
2. The questionnaire is addressed to you individually; give answers to all questions if possible
3. Select the appropriate response by using a tick (**V**) in the correct case

Your contribution is appreciated for the success of this study conducted in this area.

Part A: Socio demographic features of participants

1. Your Age: 15 ☐ 16 ☐ 17 ☐ 18 ☐ 19 ☐
2. Your Gender: Female: ☐ Male: ☐
3. Does your family receive financial assistance? Yes ☐ No ☐ Not sure ☐
4. If yes on Question 3, please check all that apply:
   - 1 Food ☐
   - 2 School fees ☐
   - 3 School materials ☐
   - 4 Community Health Insurance (Mituelle de Sante) ☐
   - 5 Other (specify): ……
5. Do you consider yourself a religious or a spiritual person? Yes ☐ No ☐ Not sure ☐
6. Do you attend any spiritual or religious groups at least once per month? Yes ☐ No ☐
7. Do you have a sister or brother who had an adolescent pregnancy?: Yes ☐ No ☐ Not sure ☐
8. Do you have a parent who was an adolescent parent?: Yes ☐ No ☐ Not sure ☐
9. How would you describe where you live? Urban (city) ☐ Suburban ☐ Rural ☐
10. With whom do you live? Parent ☐ Adult/relative ☐ Adult/non-relative ☐ Parents ☐ Parent Partner ☐ None of the Above ☐
11. I am pregnant: Yes ☐ No ☐ Not sure ☐
12. I have children: Yes ☐ No ☐
13. If yes on Question 12, how many children? 1 ☐ 2 ☐ 3 ☐ >3 ☐

Part B: Perceptions of Teen Births Scale (PTBS)

This section asks about the impact of adolescent parenting on areas of your life. Please indicate if you agree or disagree with the following statements:

A. Your Friendships:

	If I had a baby as an adolescent…	**Strongly disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly agree**
1	I would have more friends.					
2	I would have less time to spend with friends.					
3	I would lose friends.					

B. Relationships with a boyfriend or girlfriend:

	Having a baby as an adolescent…	**Strongly disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
4	Brings boyfriends and girlfriends closer.					
5	Makes the boyfriend stay in a relationship with the mother of the baby.					
6	Makes couples break up.					
7	Makes boys feel more like men.					
8	Is easy since adolescent parents share child care responsibilities more than older parents.					
9	Is usually an unwelcome surprise.					

C. Relationships with your family and parents/guardians:

	If I had a baby as an adolescent…	**Strongly disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly agree**
10	It would conflict with my family's values.					
11	My parents/guardians would be angry.					
12	My family would be closer.					
13	My family would help with babysitting.					

D. Your financial status:

	If I had a baby as an adolescent…	**Strongly disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly agree**
14	I would need more money.					
15	Money would not be problem.					
16	My family and I would be short of money.					
17	I would have to learn how to budget more.					
18	I would have to get a job/another job.					

E. Education:

	If I had a baby as an adolescent…	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
19	I would be more likely to graduate from high school.					
20	I would easily juggle (balance) school and being a parent.					
21	I would drop out of school.					
22	I would do better in school.					

F. Career and work:

	If I had a baby as an adolescent…	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
23	I would set higher goals for my future career.					
24	I would not achieve as much in my future work.					
25	I would still be able to reach my dreams and goals.					
26	I would have a hard time juggling work and being a parent.					

G. Personal characteristics:

	If I had a baby as an adolescent…	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
27	I would be more responsible.					
28	I would get in more trouble.					
29	I would feel better about my life.					
30	It would conflict with my personal values.					
31	I would feel bad about myself.					
32	I would make better decisions.					
33	I would feel more grown up.					
34	It would have a bad effect on my (or a girl's) body.					
35	I would take better care of myself.					

H. Life in general:

	If I had a baby as an adolescent…	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
36	I would have a better life.					
37	I would not be able to participate in sports and school activities.					
38	I would lose sleep.					
39	I would be upset when I found out that I (or my girlfriend) was pregnant.					
40	It would make my life easier.					
41	I would get more attention.					
42	It would have a positive effect on my life.					
43	My life would be more stressful.					
44	I would get labeled in a bad way.					

Part C: Sexual Behaviors

1. Have you ever had sexual intercourse? Yes ☐ No ☐
   2. If yes on Question 1, at which age of sex initiation? <15 ☐ 15 ☐ 16 ☐ 17 ☐ 18 ☐ 19 ☐
   3. If yes on Question 1, with how many partners have you had sexual intercourse?
      1 ☐ 2-3 ☐ >3 ☐
   4. If yes on Question 1, overall in the past, have you used condoms during sex?
      Always ☐ Often ☐ Sometimes ☐ Seldom ☐ Never ☐
5. How likely is it that you will have sexual intercourse in the next 3 months?
   Very unlikely ☐ Unlikely ☐ Neither likely or unlikely ☐ Likely ☐ Very likely ☐
6. How likely is it that you will decide to use a condom if you have sex in the next 3 months?
   Very unlikely ☐ Unlikely ☐ Neither likely or unlikely ☐ Likely ☐ Very likely ☐

End of questions.

Thank you for participating in this study.

Appendix H. KWEMERA KUGIRA URUHARE MU BUSHAKASHATSI (Umunyeshuri)

Umutwe w'Ubushakashatsi: Imyumvire k'ukubyara kw'ingimbi/abangavu mu banyeshuri biga mu mashuri yisumbuye bo mu bigo bibiri byakoreweho ubushakashatsi mu Rwanda.

Umushakashatsi: Kayiranga Dieudonne, Ishuri ry'Ubuforomo n'Ububyaza, Koleji y'Ubuvuzi n'Ubuzima, Kaminuza y'u Rwanda.

Ibisobanuro kuri ubu bushakashatsi:

Duha agaciro imyumvire yawe ku mihindukire y'ubuzima mu gihe ubyaye uri ingimbi/umwangavu. Buri munyeshuri arahabwa umubare w'ibanga akoresha muri ubu bushakashatsi. Ufite uburenganzira bwo guhagarika kugira uruhare mu bushakashatsi igihe ushakiye. Nta ngaruka n'imwe mu kugira uruhare muri ubu bushakashatsi, ntugire impungenge mu misubirize y'ibibazo. Ibisubizo byose bitangwa ni ingenzi k'ubushakashatsi. Ibizubizo ni ibanga, nta gisubizo na kimwe kizahabwa ubuyobozi bw'Ishuri ahubwo ishusho rusange y'imyumvire k'ukubyara kw'ingimbi/abangavu bizareberwa hamwe nk'itsinda.

Nemeje ko nasobanuriwe bihagije impamvu y'ubu bushakashatsi hamwe n'ibyo nsabwa kugiramo uruhare. Nabonye umwanya wo kumva no kubaza kugira ngo nsobanurirwe kandi nasobanukiwe impamvu y'ubushakashatsi. Nzi neza ko nemerewe guhagarika kugira uruhare mu bushakashatsi mu gihe ntagishaka gukomeza gutanga umusanzu wanjye. Nsobanukiwe kandi ko amakuru ntanga nsubiza ndetse n'ibizava mu bushakashatsi bizarebwa n'abo bigenewe gusa, bigendanye n'ubushakashatsi. Nizejwe kugirirwa ibanga. Nemeye kugira uruhare muri ubu bushakashatsi.

Umuyeshuri: …….. Umushakashatsi cg Umuhagarariye: …….

Umukono……..... Umukono ……...

Itariki……..…..... Itariki ……....

Uramutse ugize ikibazo k'uburenganzira bwawe nk'umuntu wagize uruhare muri ubu bushakashatsi, ushobora guhamagara Ishami Rishinzwe ubushakashatsi rya Kaminuza y'u Rwanda muri Koleji y'Ubuvuzi n'Ubuzima kuri telefoni y'umuntu uhagarariye ishami 0788490522 cyangwa se umwungirije 0783340040.

Appendix I. KWEMERERA UMWANA KUGIRA URUHARE MU BUSHAKASHATSI (Umubyeyi/Urera umunyeshuri)

Umutwe w'Ubushakashatsi: Imyumvire k'ukubyara kw'ingimbi/abangavu mu banyeshuri biga mu mashuri yisumbuye bo mu bigo bibiri byakoreweho ubushakashatsi mu Rwanda.

Umushakashatsi: Kayiranga Dieudonne, Ishuri ry'Ubuforomo n'Ububyaza, Koleji y'Ubuvuzi n'Ubuzima, Kaminuza y'u Rwanda.

Ibisobanuro kuri ubu bushakashatsi:

Duha agaciro imyumvire y'umwana wawe ku mihindukire y'ubuzima mu gihe habayeho ku byara kw'ingimbi/umwangavu. Buri munyeshuri azahabwa umubare w'ibanga akoresha muri ubu bushakashatsi. Kubera ko umwana wawe afite munsi y'imyaka 20, hakenewe ko umuha uburenganzira bwuko yagira uruhare mu bushakashatsi. Nta ngaruka n'imwe mu kugira uruhare muri ubu bushakashatsi. Afite uburenganzira bwo guhagarika kugira uruhare mu bushakashatsi igihe ashakiye. Ibisubizo byose bitangwa ni ingenzi k'ubushakashatsi. Ibizubizo ni ibanga, nta gisubizo na kimwe kizahabwa ubuyobozi bw'Ishuri ahubwo ishusho rusange y'imyumvire k'ukubyara kw'ingimbi/abangavu bizareberwa hamwe nk'itsinda.

Nemeje ko nasobanuriwe bihagije impamvu y'ubu bushakashatsi hamwe n'ibyo nsabwa kugiramo uruhare. Nabonye umwanya wo kumva no kubaza kugira ngo nsobanurirwe kandi nasobanukiwe impamvu y'ubushakashatsi. Nzi neza ko icyo nsabwa ari ukwemerera umwana wanjye/mpagarariye kugira uruhare mu bushakshatsi. Nzi neza ko ashobora guhagarika kugira uruhare mu bushakashatsi mu gihe atagishaka gukomeza gutanga umusanzu we. Nsobanukiwe kandi ko amakuru atanga mu gusubiza ndetse n'ibizava mu bushakashatsi bizarebwa n'abo bigenewe gusa, bigendanye n'ubushakashatsi. Nemereye umwana wanjye/mpagarariye kugira uruhare mu bushakshatsi.

Umubyeyi/Umuhagarariye: …… Umushakashatsi cg Umuhagarariye: …….

Umukono……..... Umukono ……...

Itariki……..…..... Itariki ……....

Uramutse ugize ikibazo k'uburenganzira bwawe nk'umuntu wagize uruhare muri ubu bushakashatsi, ushobora guhamagara Ishami Rishinzwe ubushakashatsi rya Kaminuza y'u Rwanda muri Koleji y'Ubuvuzi n'Ubuzima kuri telefoni y'uhagarariye ishami 0788490522 cyangwa se umwungirije 0783340040.

Appendix J. IFISHI Y'IBAZWA KU BUSHAKASHATSI

Umubare w'ibanga: _____

Umutwe w'Ubushakashatsi: Imyumvire k'ukubyara kw'ingimbi/abangavu mu banyeshuri biga mu mashuri yisumbuye bo mu bigo bibiri byakoreweho ubushakashatsi mu Rwanda.

Umushakashatsi: Kayiranga Dieudonne, Ishuri ry'Ubuforomo n'Ububyaza, Koleji y'Ubuvuzi n'Ubuzima, Kaminuza y'u Rwanda.

Amabwirizwa:

1. Ntiwandike izina kuri iyi fishi y'ibibazo.
2. Iyi fishi ni iyawe; subiza ibibazo byose nkuko ubifitiye ibisubizo
3. Uzurisha akamenyetso (**V**) mu kazu kerekana igisubizo nyacyo

Uruhare rwawe rurakenewe kugira ngo ubu bushakashatsi bugere ku ntego.

Igice cya A: Ibiranga ugize uruhare mu bushakashatsi

1. Imyaka: 15 ☐ 16 ☐ 17 ☐ 18 ☐ 19 ☐
2. Igitsina: Gore: ☐ Gabo: ☐
3. Umuryango wawe uhabwa ubufasha? Yego ☐ Oya ☐ Simbizi ☐
4. Niba ari yego ku kibazo cya 3, erekana ubufasha uhabwa wuzuza ahakurikira:
   - 1 Ibiryo ☐
   - 2 Amafaranga y'ishuri ☐
   - 3 Ibikoresho by'ishuri ☐
   - 4 Ubwisungane mu kwivuza (Mituelle de sante) ☐
   - 5 Ibindi (bigaragaze): ……
5. Ukunda gusenga? Yego ☐ Oya ☐ Simbizi ☐
6. Waba nibura buri kwezi uhura n'abandi kugira ngo musenge? Yego ☐ Oya ☐
7. Waba ufite umuvandimwe wabyaye ari ingimbi/ingaragu? Yego ☐ Oya ☐ Simbizi ☐
8. Waba ufite umubyeyi wabyaye ari ingimbi/ingaragu? Yego ☐ Oya ☐ Simbizi ☐
9. Mutuye ahantu hameze gute? Umujyi ☐ Inkengero z' umujyi ☐ Icyaro ☐
10. Ubana na nde? Umubyeyi ☐ Ukuze dufite icyo dupfana ☐ Ukuze tudafite icyo dupfana ☐ Ababyeyi ☐ Mukadata/Umugabo wa Mama ☐ Nta numwe mu bavuzwe hejuru ☐
11. Ndatwite: Yego ☐ Oya ☐ Simbizi ☐
12. Mfite abana: Yego ☐ Oya ☐
13. Niba ari yego ku kibazo 12, ufite abana bangahe? 1 ☐ 2 ☐ 3 ☐ >3 ☐

<u>Igice cya B</u>: Ikiguzi n'ingaruka k'ubyaye ari ingimbi/umwangavu

Iki gice kirebana n'ingaruka k'ubuzima no ku mibereho zitewe no kubyara uri ingimbi/umwangavu. Erekana igipimo wemeraho ibyavuzwe mu mbonerahamwe:

A. Ubucuti bwawe n'abandi:

	Iyo nza kugira umwana…	**Ndabihak-anye cyane**	**Ndabiha-kanye**	**Ndifashe**	**Ndabye-meye**	**Ndabyeme-ye Cyane**
1	Nari kugira inshuti nyinshi					
2	Sinari kubona umwanya wo kwidagadura n'inshuti					
3	Nari kubura inshuti					

B. Imibanire yawe n'inshuti y'umuhungu cyangwa y'umukobwa:

	Kugira umwana…	**Ndabihak-anye cyane**	**Ndabiha-kanye**	**Ndifashe**	**Ndabye-meye**	**Ndabyeme-ye Cyane**
4	Byongera umubano w'abakundana					
5	Bituma urukundo se w'umwana afitiye umuku-nzi we rwiyongera					
6	Bituma umubano w'abakundanaga usenyuka					
7	Bituma abahungu biyumvamo abagabo					
8	Nibyo byiza kuko umwana arushaho kwitabwa ho kurusha ababyeyi bakuze					
9	Biza umuntu atabiteganyaga					

C. Imibanire yawe n'umuryango, ababyeyi cyangwa abakurera:

	Iyo nza kugira umwana…	**Ndabihak-anye cyane**	**Ndabiha-kanye**	**Ndifashe**	**Ndabye-meye**	**Ndabyeme-ye Cyane**
10	Nari kuba nangije indangaciro z'umuryango					
11	Byari kubabaza ababyeyi/abandera					
12	Imiryango yacu yari gukundana cyane					
13	Umuryango wanjye wari kumfasha kurera					

D. Ubushobozi bugendanye n'amafaranga:

	Iyo nza kugira umwana …	**Ndabihak-anye cyane**	**Ndabiha-kanye**	**Ndifashe**	**Ndabye-meye**	**Ndabyeme-ye Cyane**
14	Nari gukenera amafaranga cyane					

15	Ntabwo nari kugira ikibazo cy'amafaranga					
16	Jye n'umuryango twari gukena					
17	Nari kwiga cyane uko bazigama					
18	Nari gushakisha akazi					

E. Uburezi:

	Iyo nza kugira umwana …	**Ndabihak-anye cyane**	**Ndabiha-kanye**	**Ndifashe**	**Ndabye-meye**	**Ndabyeme-ye Cyane**
19	Nari kurushaho kugira amahirwe yo kurangi-za amashuri yisumbuye					
20	Nari guhitamo kimwe: ari ukwiga cyangwa se kurera umwana					
21	Nari kuva mu ishuri					
22	Nari kumenya ubwenge bwo mu ishuri cyane					

F. Umwuga n'umurimo:

	Iyo nza kugira umwana …	**Ndabihak-anye cyane**	**Ndabiha-kanye**	**Ndifashe**	**Ndabye-meye**	**Ndabyeme-ye Cyane**
23	Nari kwiha intego zihanitse z'icyo nzabacyo					
24	Amahirwe ashingiye ku mirimo nzakora mu gihe kizaza yari kugabanuka					
25	Ntibyari guhindura inzozi n'intego byanjye					
26	Nari guhura n'amahitamo atoroshye hagati yo kwiga cyangwa se kurera umwana					

G. Ibiranga umuntu:

	Iyo nza kugira umwana …	**Ndabihak-anye cyane**	**Ndabiha-kanye**	**Ndifashe**	**Ndabye-meye**	**Ndabyeme-ye Cyane**
27	Byari kunyongerera ubumenyi ku nshingano					
28	Nari guhura n'ibibazo byinshi					
29	Byari kunezeza ubuzima bwabjye					
30	Ntibyari guhura n'indangagaciro zanjye					
31	Nari kwiyanga					
32	Nari gufata imyanzuro ikwiye					
33	Nari kumva nabaye umuntu mukuru					
34	Bigira ingaruka ku mubiri w'umwangavu					
35	Nari kurushaho kwiyitaho					

H. Ubuzima muri rusange:

	Iyo nza kuba narabyaye …	**Ndabihak-anye cyane**	**Ndabiha-kanye**	**Ndifashe**	**Ndabye-meye**	**Ndabyeme-ye Cyane**
36	Nari kugira ubuzima bwiza					
37	Sinari kubasha kongera gukora imyitozo ngo-roramubiri no kwitabira ibikorwa by'ishuri					
38	Sinari kuzongera kubona ibitotsi					
39	Byari kunca intege nkimenya ko njye n'inshuti yanjye twateranye inda.					
40	Byari gutuma ubuzima bwanjye bworoha					
41	Nari kurushaho kwitonda					
42	Byari kungiraho ingaruka nziza ku buzima					
43	Byari gutesha umutwe ubuzima bwanjye					
44	Nari kubonwa nabi					

<u>Igice cya C</u>: Imyitwarire ku gukora imibonano mpuzabitsina

1. Wari wakora imibonano mpuzabitsina? Yego ☐ Oya ☐
   2. Niba ari yego ku kibazo cya 1, watangiye kuyikora ku myaka ingahe?
      <15 ☐ 15 ☐ 16 ☐ 17 ☐ 18 ☐ 19 ☐
   3. Niba ari yego ku kibazo cya 1, umaze gukorana imibonano mpuzabitsina n'abantu bangahe? 1 ☐ 2-3 ☐ >3 ☐
   4. Niba ari yego ku kibazo cya 1, wigeze ukoresha agakingirizo mu bihe byashize?

   Buri gihe☐ Kenshi cyane☐ Rimwe na rimwe☐ Gake cyane☐ Sinigeze ngakoresha☐

5. Waba wumva uzakora imibonano mpuzabitsina mu mezi atatu ari imbere?

Simbiteganya na gato☐Simbiteganya☐Ndifashe☐Ndabiteganya ☐Ndabiteganya cyane ☐

6. Wumva wakoresha agakingirizo uramutse ukoze imibonano mpuzabitsina mu mezi 3 ari imbere?

Simbiteganya na gato☐Simbiteganya☐Ndifashe☐Ndabiteganya ☐Ndabiteganya cyane ☐

Ibibazo birarangiye.

Murakoze kugira uruhare muri ubu bushakashatsi.