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NEGATIVE EARLY REPRODUCTIVE HEALTH DECISIONS AND ASSOCIATED OUTCOMES AMONG WOMEN IN THE NORTHERN REGION OF GHANA

BY

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DECLARATION

I Miriam Rahinatu Iddrisu hereby declare that information in this thesis has been obtained and presented in accordance with academic rules and ethical conduct. I also declare that with the exception of references to the literature, which have been duly acknowledged, this thesis is the result of my original work under the guidance of my supervisors.

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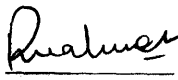
Prof Augustine Ankomah		03/05/2019
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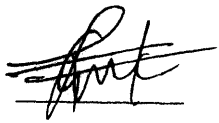
Dr John Ganle		03/05/2019
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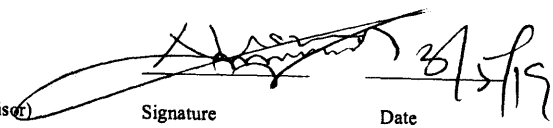
Dr. Amos Laar		3/5/19
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DEDICATION

To my mum who did not live to see this dream achieved. To my friends and family who kept my spirit up when the muses failed me. I also dedicate this work to all young women whose childhoods have been stolen through early and non-consensual marriages.

ABSTRACT

Background: A growing body of demographic and sociological literature indicates that early life decisions and choices individuals make have important health consequences in later life. Within reproductive health in particular, a number of studies suggest that early reproductive health decisions that women make have an impact on their reproductive health outcomes in later life. Despite this growing evidence, little understanding exists in Ghana about the relationship between negative early reproductive health decisions of women and later life reproductive health outcomes. Based on a life course perspective, this study aimed to examine the early reproductive health decisions of women and their associated reproductive health outcomes in the northern region of Ghana.

Methods: A concurrent mixed methods retrospective study design was conducted to elicit information from married women within the ages of 15-49 years as well as other key informants. Systematic sampling was used to sample a total of 390 married women to take part in the survey. A combination of purposive and snowball sampling was used to select 40 key informants and a total of 130 women between ages 15- 49 with a minimum marriage experience of five years to take part in qualitative focus group discussions, in-depth interviews and key informant interviews. Quantitative data were collected through a face-face interview using structured questionnaires. Qualitative data were collected through focus group discussions, in-depth interviews and key informant interviews using unstructured topic/discussion guides. Descriptive statistical methods were used to describe important characteristics of survey respondents. Bivariate and multivariate logistic regression analyses were performed to examine association between early reproductive health decisions and reproductive health outcomes in later life. Confidence level and statistical significance were set at 95% and a p-value<0.05 respectively. Stata 13 version software was used in the analysis of the quantitative data. Qualitative interviews were audio-recorded, transcribed verbatim and analysed thematically with Nvivo 10 software.

Results: Prevalence of early sex (first intercourse before age 16) was 58%, early marriage (union contracted before the age 18) was 30.0% and 80% of respondents did not consent to their marriage partner. About 42% of women have engaged in spousal communication on contraceptives. Also 24% experienced gender based violence, 25% respondents' ever experienced unintended pregnancy and 44% experienced high fertility. The results from the qualitative study showed that persons who influence negative early Reproductive Health (RH) decisions of early sex, early marriage and consent of marriage partner were

future partner, fathers of respondents and arranged marriages. Women who married before age 18 (early marriage) were also 3.27 times more likely to experience poor spousal communication relative to those who married between the age bracket of 26 – 36. Also women who had early sex and married early were significantly more likely to experience Gender Based Violence (GBV). The study further established a significant association between respondents experiencing early sex and GBV (p= 0.001). The odds of experiencing GBV were 2.65 times higher among women who first had sex before age 16 years (early sex) compared to those who first had sex between the ages of 16-25. Also of the respondents who had experienced unintended pregnancy, 72.5% (n=71) engaged in early sex (first intercourse before age 16). The odds of experiencing unintended pregnancy was 3.10 times higher among women who had sex before age 16 (early sex) compared to those who had sex between the ages of 16 to 25. Again, 39.8% (n=39) of the respondents who had unintended pregnancy married early. Also 81.6% (n=80) of the respondents who experienced unintended pregnancy did not consent to their marriage partner.

Conclusion: The study found evidence linking negative early RH decisions of women to RH outcomes in the adult lives, suggesting that early RH choices affect later life reproductive health outcomes of respondents. These findings suggest that understanding women's current RH outcomes in the northern region requires looking closely at early life decisions which are likely to affect women later in life. Interventions in this direction can considerably improve women's health in the Northern region.

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LIST OF ABBREVIATIONS/ACRONYMS

ANC-	Antenatal Care
AU-	Africa Union
CHPS-	Community-based Health Planning and Services
CHRAJ-	Commission on Human Rights and Administrative Justice
DHS-	Demographic and Health Surveys
DOVVSU-	Domestic Violence and Victims Support Unit
FCUBE-	Free and Compulsory Universal Basic Education
FGD-	Focus Group Discussion
FIDA -	International Federation of Women Lawyers
GBV-	Gender-based violence
GDHS-	Ghana Demographic and Health Survey
GHS-	Ghana Heath Service
GSS-	Ghana Statistical Service
ICRW-	International Center for Research on Women
IDIs-	In-depth Interviews
KIIs-	Key Informant Interviews
LEAP-	Livelihood Empowerment Against Poverty
MICS-	Multiple Indicator Cluster Surveys
MoGCSP -	Ministry of Gender, Children and Social Protection
NR-	Northern Region
PHC-	Population and Housing Census
RH-	Reproductive Health
SDG -	Sustainable Development Goal
SHS-	Senior High School
SRE -	Sexual and Relationship Education
SRH -	Sexual and reproductive health
STI-	Sexually Transmitted Infections
TFR-	Total Fertility Rate
UNCPD -	United Nations Commission on Population and Development.
UNFPA-	United Nations Population Fund
UNICEF-	United Nations Children's Fund
WHO-	World Health Organization
WILDAF-	Women in Law and Development

CHAPTER ONE

INTRODUCTION

Over the past four decades, women's issues have become prominent on the global agenda, with these issues constituting major themes of conferences around the world (UNFPA, 1994; UN, 1995; Abuja Declaration 2001; Ouagadougou Declaration, 2008, Tunis Declaration, 2012). Apart from the fact that there is an increasing attention in research and policy on gender and reproductive health at all levels (Blanc, 2001; Adomako Ampofo 2001; Blanc, 2001; Varga 2003; Buor, 2004; Lithur, 2004; Benefo et al 2005; Moyer et al., 2014), governments are introducing and passing legislations on ways to adequately better the lives of women (MoGCSP, 2014). International and regional legal instruments have clarified the obligations of states to prevent, eradicate and punish violence against women and girls (ICPD,1994; CEDAW, 1979; CARMMA ,2009).

Notwithstanding the heightened international interests in promoting women's health and rights, especially sexual and reproductive health and rights, issues of early childbirth, unintended pregnancy, gender-based violence (GBV), and unsafe abortions remain critical reproductive health challenges facing women and girls in sub-Saharan Africa, including Ghana (GHS, 2011). Indeed, issues of women's and young girls' sexual and reproductive health continue to be of relevance to society and socio-economic development in Africa (WHO, 2014). For instance, the risks for young girls conferred by early and non-consensual marriages may involve older male partners who have often been sexually active for many years, and may thus "bring" HIV to the marriage (Pettifor et al., 2004, Hindin & Fatusi, 2009). There is also evidence that young women who are married at age 18 or older are more likely than those who are married before age 18 to be involved in planning their marriage, to reject wife beating, to have used contraceptives to delay their first pregnancy and to have had their first birth in a health facility (NPC, 2006; Awusabo-

Asare et al., 2006). They are also less likely than women who married early to have experienced physical violence or sexual violence in their marriage or to have had unintended pregnancy, which could possibly lead to unsafe abortion and morbidity or even death during childbirth, and obstetric fistulas (Stephenson et al., 2014; Pettifor et al., 2004).

Furthermore, early marriage and early marital sexual activity present reproductive health risks for young women. A number of social, economic and health outcomes are associated with early marriage. For example, early marriage tends to curtail young women's educational opportunities, and those who marry early tend to have low levels of educational attainment. Studies have found that females who marry at young ages may be less capable than those who marry later of asserting themselves in their marriage, which may place them at higher risk of experiencing physical and sexual violence (Santhya et al. 2010). Moreover, early marriage typically coincides with early childbearing — and young, first-time mothers face an increased risk of maternal and infant mortality. In addition, emerging evidence suggests that early marriage may place young women at heightened risk for STIs, including HIV due to unequal household decision-making power which may restrict women's autonomy in reproductive health matters (UNFPA, 2011). This could lead to high fertility rates, unwanted pregnancy, and forced termination of pregnancy, lack of prompt health care seeking or inadequate birth spacing which has fatal consequences (UNFPA, 2008). Child marriage can put girls at risk of intimate partner violence, social isolation and lower education levels (GSS 2012, NPC 2006). Other studies have specifically noted that girls who marry young are often denied a range of human rights: many discontinue their education, face serious health risks from early and multiple pregnancies, and suffer sexual and domestic violence (Alhassan, 2013; Atsem, 2014; Lee-Rife et al., 2012).

The potentially negative impact that early Reproductive Health (RH) choices women make may have on future RH outcomes suggest a need for more research to understand the early RH decisions that women make and the associated RH outcomes. At the global level, a growing body of demographic and sociological studies on women's reproductive health has suggested that early reproductive health decisions that women make do have impact on their reproductive health (RH) outcomes in later life. For instance, a number of recent studies have reported significant associations between early reproductive health events such as early sex, early marriage and unconsented marriage, and negative RH, psychological, as well as emotional health outcomes later life (Tenkorang et al., 2018; Wellings et al., 2013; Copeland et al., 2010). Other studies have shown that women's negative early reproductive health choices often produce outcomes such as HIV/AIDS, GBV, and unintended pregnancy (Pettifor et al 2004, Santhya et al., 2010, WHO, 2011, Adanu et al 2012, Santelli et al., 2015). In Ghana, while a number of previous studies have suggested that women make several early RH choices (Ganle 2015; Darteh et al 2014; UNFPA 2013; UNICEF, 2005), there have not been any systematic investigations linking such early RH decisions to early RH outcomes in later adult life in the country[1]. This knowledge and evidence gap could potentially hamper efforts to improve reproductive health outcomes for all women in Ghana. This doctoral research project therefore explored negative early RH decisions of women and the relationship between negative early RH decisions and reproductive health outcomes in later adult life among women of reproductive age (15-49) in the northern region (NR) of Ghana.

[1] For the purpose of this study, early Reproductive Health (RH) decisions refer to the following life course events: early sex, early marriage, and consent to marriage partner. Reproductive health outcomes for the study are also limited to unintended pregnancy, fertility, spousal communication, and gender-based violence,

1.1 Research Problem

Ghana was among the countries which participated in the 1994 Cairo International Conference on Population and Development (ICPD), where reproductive health rights and reproductive health were given considerable attention and recognition. Ghana has ratified the UN Conventions and declarations on Rights of the Child (CRC); Conventions on the Elimination of All forms of Discrimination Against Women (CEDAW); adopted the African Union Solemn Declaration on Gender Equality and Women's Empowerment; the African Charter of the Rights and Welfare of the Child and most recently, the Sustainable Development Goals (Clark et al, 2006; MoGCSP, 2014; Cook, 2015; UN, 2016). Ghana is also a signatory to the Africa Union (AU) Campaign to End Child Marriage (AU,2015).

Since the ICPD declaration, reproductive health decisions have been seen as human right issue (UNFPA, 1994). Despite the heightened global, regional and national interests in ensuring women's sexual and reproductive health and rights, issues of early childbirth, unintended pregnancy, gender-based violence (GBV), and unsafe abortions remain critical reproductive health challenges women and girls face especially in sub-Saharan Africa, including Ghana (GHS, 2011). In Ghana for instance, about 11% of young girls have their first sexual debut by age 15, while 44% and 68% experience their first sexual debut by age 18 and 20 respectively (GDHS,2014; NPC, 2010). Similarly, about 28% of women in Ghana are married before 18 and 6% before 15 years (MICS.2011). However the northern region records the highest proportion: 54% of women are married before age 18 (GSS, 2013).

Early marriage before the age of 18 years in Ghana is a violation of the 1992 Constitution of Ghana and a number of international human rights conventions. However, for many young girls in the Northern Region, marriage is perceived as a means of securing their future survival and protecting them (IPPF, 2010; Alhassan, 2013). Girls are forced into

marriage by their families while they are still children either in school or out of school in the hope that marriage will benefit the girls and their families both financially and socially (IPPF 2010, Alhassan, 2013). Apart from suggestions that early RH decisions can entrench gender inequality and hold girls back, depriving girls of their health, education and a chance to prosper, there are also arguments that early RH decisions can make it difficult to achieve Ghana's development agenda.

While studies have been carried out on negative early RH decisions and associated RH outcomes elsewhere (Jensen et al, 2003; Loaiza et al 2012; Koski et al 2017), much more needs to be done especially in Ghana. In the northern region in particular, evidence on the ways in which negative early RH choices of early marriage, early sex and consent to marriage partner can affect their reproductive health outcomes in adult life is non-existent. Limited literature exists on possible associations between negative early RH decisions of early sex, early marriage and RH outcomes of poor spousal communication, unintended pregnancy gender based violence (GBV) and high fertility in the northern region. Evidence on the ways in which negative early RH choices and practices limit young women's lives and compromise their future reproductive health outcomes is limited. Although previous research in Ghana suggests that women's early RH decisions are sometimes framed by socio-cultural factors (Ganle 2015; Atsem ,2014; Alhassan,2013), the extent to which socio-cultural norms influence early RH decisions of women in the northern region is not known. Also, although a large global evidence base exists on the consequences of negative early RH decisions, applying the life course theory in these studies are limited. Indeed, there are no specific studies in Ghana that have applied the life course perspective to studying how early RH decisions of women could affect RH outcomes in adult life. However, as the life course theory links behavioural outcomes to influences of socio demographic and environmental factors (Tenkorang et al 2018),

studying the relationship between negative early RH decisions and associated RH outcomes in later life using a life course perspective could potentially produce new evidence, knowledge and innovative measures which could be used to inform policy and design interventions. A life-course approach considers an individual's entire progress throughout life to explain why certain outcomes result. The outcomes depend on the interaction of multiple protective and risk factors throughout people's lives. It is in the light of these gaps in literature that this doctoral research project was conducted in the Northern Region (NR) of Ghana.

1.2 Objectives

The main objective of the study was to examine the early reproductive health decisions of women and their associated reproductive health outcomes.

Specific objectives of the study were to:

1. Determine the prevalence of early sex, early marriage, and consent of partner in the northern region
2. Explore the extent to which socio-cultural norms influence RH decisions.
3. Determine the prevalence of reproductive health outcomes of fertility, unintended pregnancy, gender based violence and spousal contraceptive communication in the northern region
4. Determine the reproductive health outcomes associated with early RH decisions among women in the northern region

1.3 Research Questions

1. What is the prevalence of early reproductive health decisions of early sex, early marriage, and consent of partner in the northern region?
2. How do women in northern region make RH decisions, and how do socio-cultural norms influence these decisions?
3. What is the prevalence of reproductive health outcomes of fertility/parity, unintended pregnancy, sexual and gender based violence?
4. What reproductive health outcomes are associated with the early RH decisions of women in the northern region make?

1.4 Justification

Negative early RH decisions of early sex, early marriage and consent to marriage partner have life-changing implications for many of the world's girls (ICRW, 2011; Bunting, 2012; ICF, 2012; Shieffield, 2013; Fearon et al., 2015). In this regard, this research seeks to contribute to knowledge by examining early reproductive health decisions of women and their associated reproductive health outcomes. The study's findings could have policy and academic relevance.

This research could be beneficial to public education policy. It could inform knowledge on reproductive health among young women and adolescents' girls, thereby addressing challenges in the adoption and implementation of adolescent health policy. The study could also facilitate the development of strategies to help improve adolescents' reproductive health in Ghana.

In terms of the public health significance, it is hoped that this study will contribute to future development of appropriate education and intervention programmes to reduce early reproductive health decisions. In particular, findings from the study could offer evidence

upon which basis policies may be formulated and reviewed. Also the results could inform and shape the reproductive health policy for young women and adolescent girls both in and out of school in the region.

In addition findings from the research would be beneficial to reproductive health advocates to create the necessary framework and develop accurate and relevant health information and skills for adolescents, their families and the most affected communities.

Finally, findings will hopefully fill in the knowledge gap surrounding the reproductive health outcomes associated with negative early RH decisions among women in the northern region.

1.5 Chapter summary and thesis outline

This thesis has been organized into six chapters. Chapter one is an introduction to the entire research, and focused on the background of the study and the problem statement. The chapter also discussed the study objectives and justification. Chapter two reviews relevant literature and involves clarifying and explaining concepts as well as synthesizing existing evidence and identifying gaps in knowledge. Chapter two also outlines and discusses theoretical and conceptual frameworks for the study.

Chapter three examines the study context and methods used to conduct the research. These include the study design, study population, sampling and sample size, data collection methods, data analysis and ethical issues. Chapter four presents the study results, and chapter 5 presents a discussion of results. Finally, chapter six discusses the summary, conclusion and recommendation and identifies areas of further research.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

Chapter two reviewed published and unpublished works and other relevant studies related to the topic of discussion in this thesis. The essence of the literature reviewed was to put the study into perspective and also guide the development of the conceptual framework of the study. The researcher adopted a narrative or traditional type of literature review. The narrative review approach allowed for identification and highlighting of significant areas of research. The approach adopted also helped to identify research gaps, and as well helped refine and define the research questions. The literature was searched from relevant databases and relevant materials were selected and used.

The literature review proceeds along four levels, each sub-heading focusing on one specific objectives of the study: reproductive health (RH) decisions; women's involvement in reproductive health decisions-making; early reproductive health decisions of women (early sex, early marriage and consent of partner); reproductive health outcomes of poor spousal communication, fertility, GBV and unintended pregnancy, and relationship between early RH decisions and RH outcomes. Gaps in knowledge were also identified and highlighted. Drawing from the literature reviewed, a synthesis of the conceptual theory and frameworks were developed and presented.

2.2 Reproductive Health Decisions

The concept of decision making has diverse connotations depending on the nature of the discourse (Koon et al., 2012; Darteh et al., 2014). Available literature classifies the concept of decision making into three perspectives (Koon et al., 2012; Darteh et al., 2014).

These are decision making as a process (Blanc, 2001; Koon et al., 2012; Darteh et al., 2014), decision making as a choice (Koon et al., 2012; Darteh et al., 2014) and decision making as a right (ICPD, 1994; Koon et al., 2012; Darteh et al, 2014).

As a process, decision making goes through a number of stages, namely, identification of a problem, gathering data for analyses, developing alternative solutions, selecting an appropriate solution, implementing the solution and finally, evaluation (Darteh et al., 2014). Background characteristics such as one's education can influence an individual's level of decision making (Darteh et al., 2014). Social, cultural and environmental factors also affect women's reproductive health decision making in sub-Saharan Africa (Darteh et al., 2014; Ganle et al., 2015; Koski et al., 2017). A woman's participation in her sexual and reproductive health is improved based on her exposure to knowledge. However religious affiliation and socio-cultural factors can also influence a woman's decision making.

As a choice, every individual has the right to make their own choices about their sexual and reproductive health (Loaiza et al 2012). Choice at its core recognises that competent adults can and should always be allowed to make their own decisions (Furedi, 2013; ICRW, 2007). The ICPD programme of action advocates for individuals to have the freedom to make reproductive health choices (UNFPA, 1994). Choice is one of the cardinal principles enshrined in reproductive health policies worldwide (Darteh et al., 2014; UNFPA, 2012). Furedi (in page 2- 2013) argues in relation to choice that "the fact that it is she who decides what is right for her – and not anyone else - is important in itself, regardless of whether she is able to follow through her choice". "It is your body, and when the use of your body is owned and regulated by the state, society or another person, you have no rights at all" (Furedi, 2013). Factors that limit women's RH choices on fertility

and RH decisions include economic, social and cultural circumstances (Blanc, 2001; Koon et al., 2012; Darteh et al., 2014).

As a right, Women's right to health including reproductive health was strongly affirmed by the International Conference on Population and Development (ICPD) in 1994 and the 1995 Fourth World Conference on Women (UNFPA, 1994; UNFPA.2012; Koski et al., 2017). Sexual and Reproductive Health and Rights (SRHR) encompass all of the rights and issues surrounding a person's sexual and reproductive life. These rights are closely linked with other internationally recognised human rights. The 1994 ICPD Conference marked a paradigm shift in addressing reproductive health as a right. Reproductive health rights recognise the basic right of all couples and individuals to decide freely and responsibly the number, spacing and timing of their children and to have the information and means to do so, and the right to attain the highest standard of sexual and reproductive health (UNFPA, 1994). It also includes the right of all to make RH decisions free of discrimination, coercion and violence (UNFPA, 1994). Denial of women's RH rights also worsens poverty (Blanc, 2001; Koon et al., 2012; Darteh et al., 2014).

2.3 Women's involvement in reproductive health decisions-making

Scholars have argued that reproductive health decision is rooted in the concept of autonomy (ICPD, 1994; Price et al., 2007; Nguyen et al., 2015). Mensch et al. (2014) and Orubuloye (1996) argued that the ability of women to make RH decisions on family size, when to have a baby, birth spacing and use of family planning services can enhance women's bargaining power and also reduce vulnerability to sexually transmitted infections (STI"s).

Expressing a similar opinion, Snow et al. (2013) argued that women lack control over decision-making power in reproductive health. Klugman et al. (2014) similarly contend

that the lack of voice in decision making by women is rooted in gender inequality. Women are alienated from participating in decision-making about issues in their own lives as well as those facing the household, family, or community (Klugman et al., 2014).

Kumar (2007), Moyer et al. (2014) and Ganle et al., (2015) have all observed in different societies in Ghana that women, especially, in the traditional family are subservient to the man in marital relationship, such that the men assume key positions in RH decision-making of all forms. Discussing decision making at the family level, Marks et al. (2009) contend that gender roles are defined by the socio-cultural norms of most societies where family systems are based on those gender roles. Darteh et al. (2014) observed that in most traditional Ghanaian communities, women did not take part in decision-making. They were not expected to speak in public and had to ask for permission to do so from elders. Expressing a similar opinion, Plan UK's (2011) study in four West African countries also found that women had little bargaining power and ability to make decisions regarding various aspects of their lives. Similarly, Ameh et al. (2007) observed in India, Egypt and Bangladesh that, the physical movement of women is restricted. These restrictions are governed by social norms and involve restrictions on unaccompanied travel, limits on direct contact with unrelated males, veiling the head and face among others (Ameh et al., 2007).

2.3.1 Women's RH decision-making autonomy

Autonomy is defined as the ability to influence and control one's personal environment (Safilios-Rothschild, 1982), or the capacity to obtain information and make decisions about one's private concerns and those of one's intimates (Dyson and Moore, 1983). Anderson and Eswaran (2009) also define women's autonomy as the ability of women to make decisions within the household in relation to their husband. Studies have applied the different sets of dimensions of women's autonomy: knowledge autonomy, decision

making autonomy, sexual and RH autonomy, physical mobility, economic access or control over resources (Sen & Battiwala, 2000; Jejeebhoy, 2000). This study however conceptualized autonomy only to be when a woman makes RH decision either alone or jointly with her husband.

Literature shows that, women with high economic status are more likely to be autonomous (Acharya et al. 2010; Amin and Alam 2008; Cvorovic 2008; Darteh et al. 2014). This finding was confirmed by Nigatu et al. (2014) where household income was significantly associated with women's autonomy in seeking healthcare services. Similarly, Haque et al. (2012) found in Bangladesh that mothers with higher autonomy were more likely to be among the richest wealth quintile. Expressing similar views Senarath et al, (2009) and Woldemicael (2007) both found in separate studies that women who are employed and earn cash are more likely to be autonomous in household decision making than women who are not employed or who do not work for cash.

Socio-cultural practices and beliefs can influence sexual and reproductive health decisions because cultural taboos are major obstacles to informed discussions and access to sexual and reproductive health services, especially among adolescents in some parts of the world. Research shows that place of residence affects women's autonomy (Acharya et al. 2010; Amin and Alam 2008; Cvorovic 2008; Darteh et al. 2014). Women in urban areas are more likely to be autonomous than women in rural areas (Haque et al., 2012). Women from rural areas in Terai region in Nepal had less autonomy in decision making in all four types of outcome measure -own health care, visits to family or relatives, major household purchases and making purchase for daily household needs (Acharya et al, 2010). Contrary to expectation, women in northern Ghana who are not so privilege in terms of education were found to be more independent in some dimensions of household decision-making than women in southern Ghana (Fuseini & Kalule-Sabiti, 2015).

Women in monogamous marriages were found to be more autonomous than women in polygamous marriages (Dabere et al, 2014). Women who were in polygamy were believed to be in rural areas, have no or less education and probably had fewer earnings, therefore would be less autonomous. (Nigatu et al, 2014). However, Fuseini & Kalule-Sabiti (2016) found that among matrilineal women, polygyny was associated with autonomy in their health care decision making.

Women's autonomy in decision making is positively associated with their age (Haque et al, 2012; Acharya et al, 2010). Evidence from other developing countries specifically in Asia show that, women's age and family structure are the strongest determinants of women's authority in decision making. Older women and those in nuclear households are more likely than other women to participate in family decision making (Sathar et al., 2000; Senarath et al., 2009).

Number of living children has also been found to be associated with women's autonomy. The more children a woman has, the higher her autonomy (Acharya et al., 2010). This may be due to the fact that some societies are pronatalists and respect women who have more children (Dabere et al, 2014; Acharya et al., 2010). Nevertheless, some studies have found that women who have high autonomy have lower levels of fertility; they are able to use contraception to control the number of children they have (Balk, 1994; Dyson and Moore, 1983; Hindin, 2000; Upadhyay and Hindin, 2005).

2.4 Early reproductive health decisions of women

Reproductive health decision making on sex, marriage and marriage partner are essential for women's good reproductive health. However, women do not enjoy their RH rights of making autonomous decisions regarding these matters. Ghana was among countries which participated in the 1994 Cairo International Conference on Population and Development

(ICPD) where reproductive rights and reproductive health were given considerable attention and recognition. Also, Ghana has ratified the UN Convention on Rights of the Child (CRC); Convention on the Elimination of All forms of Discrimination Against Women (CEDAW); adopted African Union Solemn Declaration on Gender Equality and Women's Empowerment; African Charter of the Rights and Welfare of the Child and most recently, the sustainable development goals (Clark et al, 2006; MoGCSP, 2014; Cook, 2015; UN, 2016;). Despite these milestones, women in Ghana are yet to fully enjoy reproductive health rights on decisions on sex, marriage and choice of marriage partner in many societies (Darteh, 2014; World Bank,2011).

2.4.1 Early sex

According to the World Health Organization (2014), adolescents constitute about 1.2 billion of the world's population. Decisions made during this period of life affect not only their wellbeing, but also the wellbeing of societies (UNFPA, 2012). A number of reviews have examined the patterns and trends in adolescent sexual behaviour in SSA using nationally representative survey data (Mahy & Gupta 2002; Cleland & Ali 2006; Wellings et al., 2006; WHO 2007; Khan & Mishra 2008; Mishra et al., 2009). Sexual debut before age 16 is generally considered early, based on both the statistical distribution and positive associations with reproductive health outcomes of sexually transmitted infections, unintentional pregnancy, and psychological and social problems of depression and low self-esteem (Mwakideu, 2016; Challenging Heights, 2016). The definition of early sex (debut before age 16) according to Madkour (2011) has been used in several adolescents' studies: Godeau et al. (2008) studies of French adolescents; Magnusson (1998) study among Swedish adolescents; Finnish adolescents study by Lavikainen et al. (2009), and Wellings et al. (2001) studies on British adolescents. However, in the past three decades, there has been a considerable decline in the age at which adolescents initiate first sexual

intercourse, both in the developed and developing countries (Ekundayo et al., 2007). In this regard, researchers have found substantial differences across nations in approaches and definition of early sex (Fearon et al, 2015, Madkour et al, 2010; Agha et al, 2006; Awusabo-Asare et al, 2004; Hargreaves et al, 2006; Donovan 1998).

Although most people in contemporary developed nations experience sexual initiation during adolescence, the relative timing during adolescence varies by country (Magnusson 1998; Lavikainen et al. 2009; Wellings et al. 2001). Age 16 is the most common age for sexual consent in most countries including Ghana (Ekundayo et al., 2007). Variations however exist. In most parts of the United States and Egypt, age 18 is the age for sexual consent (Ekundayo et al., 2007). Sexual consent in Sweden is 15 (Madkour, 2011), age 14 in Jamaica, age 16 in Canada and 12 in Mexico. Most young people become sexually active during adolescence. Recent evidence shows that median age at first sex among 20-24-year-old women ranges from a low of 16 years or younger in Chad, Mali and Mozambique to a high of 19.6 in Senegal (Michelle et al., 2009).

Williams et al. (2008) observed that sexual debut for both women and men in Sub-Saharan Africa occurred between the ages of 15 and 18 years. They also found that the pattern of age at sexual debut in Sub-Saharan Africa generally contrasts with that in other parts of the developing world. He observed that in Latin America and the Caribbean, half of young women had first sex between ages 18 and 19.

Age at sexual debut varies greatly among cultures, from place to place and among different individuals, and is often due to varying factors. The individual's first intercourse is closely associated with a number of factors which include religion, economic status, education, and place of childhood residence among others. About 22% of Nigerian females aged 15–19 were found to have initiated sex (Ekundayo et al, 2007). Bankole, Biddlecom, Singh, Guiella and Zulu (2007) report that by the ages 12-14, adolescents in

Burkina Faso, Ghana, Malawi and Uganda are already sexually active and the sexually active adolescents believe that their other friends as well engage in sex. Also, Huebner and Howell (2003) found that adolescents are likely to engage in sexual intercourse before finishing high school.

Age at sexual debut varies by culture and location (Durowade et al.,2017). Blum, (2007) found that 75% of young women reported having had sex by age 20 in sub-Saharan Africa. By age 20 sexual debuts is nearly universal in Liberia, Sierra Leone, and Côte d'Ivoire- 91% -99% (USAID, 2017; Adegoke, 2011). In Ghana 12% of women engaged in early sex (less than age 16) (GDHS, 2014; Pop Council and UNFPA, 2016). Also the national estimated age at sexual debut in Ghana is18 years; this is however lower at 17 years in the Northern region (NR) (GDHS, 2014)

2.4.1.1 Causes of early sex

First sexual experiences are part of the transition to adulthood and are influenced by the environment, religion, economic, education, context and culture in which young people develop (Fearon et al, 2015; Doyle et al., 2012). There has been substantial research over the last decade on some of the factors that contribute to early sex and its consequences (Klugman et al., 2014; Malhotra et al., 2011; Lloyd, 2005; Vogelstein, 2013). The reviews suggest that social and cultural norms, including those related to faith, influence sexual debut.

Societal and traditional norms can influence early sexual debut. Religious groups have strong oppositions against premarital sex. Individuals attending religious meeting receive more frequently, messages against pre-marital sex. Religious youth tend to be exclusive with friends and to prefer friendships with religiously similar people, which enforce social ties and contribute to youths making positive choices amid negative peer influence

(Gregory 2014). Fearon et al. (2015) and Yeboah (2014) found religion among the Ga Mashie in Ghana to be the most influential factor for early sex.

Studies from several African countries have shown that school-going or educated youth, particularly females, may be less likely to engage in early sexual behaviour than out-of school youth (UNICEF, 2011; ICRW, 2010; Beguy et al., 2009; Bankole et al., 2009). Although existing evidence demonstrates that in school youths engage in less risky sexual behavior than their out-of-school counterparts, studies conducted within school settings demonstrate that in-school youth are also at risk for negative sexual and reproductive health outcomes stemming from risky sexual behaviour, such as multiple sexual partnerships and unprotected sexual intercourse.

The lack of RH education promotes early initiation of sexual activity and sometimes leads to a number of negative reproductive health outcomes. Chandra- Mouli et al. (2013), Raj, et al. (2009), Dahl (2010), and UNICEF (2012) have found in separate studies in different settings that sex education for adolescents in most parts of the world especially Africa is seen to be a taboo. Many parents, cultures and societies frown on discussing sexual matters with their adolescents. Similarly, Muller et al. (2008) also found that sex education for adolescents have positive effect on their use of contraceptives during their first sexual intercourse. It provides the adolescents with all the necessary information they need to know about their bodies, gender, reproductive health, puberty, and knowledge on contraceptives, which enhance their usage and the consequences of coitus which include sexually transmitted infections and unwanted pregnancies. It also helps the adolescent to make informed decisions concerning their sexuality. As the gap between the generations is reinforced by cultural globalisation, young people are increasingly left to learn about sexual issues from their peers or from the mass media.

In the same vein studies have revealed that parent-child communication can significantly influence adolescent sexual debut (Bastien et al, 2011; Biddlecom et al, 2009; Shtarkshall et al., 2007; Akintomide et al 2004).In a similar study in Nigeria Durowade et al. (2017) found that the mother's age at first sex is significantly associated with several of the children's early social behaviour and their likelihood of being sexually active. Likewise, Awusabo-Asare, Abane and Kumi-Kyereme (2004) argue that some Ghanaian socio-cultural norms such as puberty rights can influence adolescent's sexual debut. Puberty rites in time past offered an opportunity for the older generation to provide healthy information and sex education through drama and other rituals. However, this could negatively expose and influence adolescents' sexual debut (Kavi and Abdul-Rahman, 2008). Grupta (2003) and Hindin et al. (2009) in separate studies also found that the environment influences young people's sexual debut. Young men and women in rural areas tend to initiate sexual activity earlier than their urban counterparts (GDHS, 2014; GSS, 2013). On the contrary, O'Hara et al. (2012) found that exposure to explicit sexual material can influence sexual debut. Daka and Shaweno (2014) further posit that financial hardships tend to cause some adolescents to exchange sex for money. Halman (2004) and Madise et al. (2007) both found that low socioeconomic status not only increases female odds of exchanging sex for money or goods, but also raises female chances of experiencing coerced sex, and multiple sexual partners

Other factors that have been identified include substance and alcohol use, high prevalence of sexual initiation among peers, permissive norms about negative sexual outcomes, family economic disadvantage, large family size, minority group status, unstable family environment and low maternal education (Durowade et al., 2017).

2.4.1.2 Effects of early sex

Research has found evidence linking early sex (defined as before age 16) to future reproductive problem and behaviours (Durowade et al., 2017; Cavazos-Rehg et al., 2009; Kumi-Kyereme et al., 2007; Woodward et al., 2001; Awusabo-Asare et al., 2006). Globally, early adolescent sexual activity remains a recurring public health issue (Durowade et al., 2017). According to Durowade et al. (2017), early sexual debut has implications which range from increased incidence of multiple sexual partners, unprotected sex, and risk for sexually transmitted diseases including HIV/AIDs, unwanted and teenage pregnancies, and unsafe abortions.

Awusabo-Asare et al. (2006) contend that poor reproductive health status is further exacerbated by the early onset of sexual activity, limited knowledge and understanding of contraception including condom use and low access and utilisation of quality health services. Mensch et al. (2006), Eliason et al. (2013), ICRW (2012) and Johnson et al. (2011) have separately observed that the age at first sexual activity has the potential of increasing the rate at which an individual is exposed to risky sexual behaviour. It also has the risk of spreading sexually transmitted infections such as HIV/AIDS because most first timers are less likely to practice safe sex (Eliason et al., 2013; ICRW, 2012; Johnson et al., 2011; Mensch et al., 2006).

Singh et al. (2000) explains that the initiation of sexual intercourse is a milestone in the physical and psychological development of men and women in all societies, and both the timing of the sexual activity and the context within which it occurs can have immediate and longer term consequences for the individual. Heywood et al. (2015) and French et al. (2003) both found that early sex can increase the risk of teen pregnancies. Early sexual intercourse initiation has also been associated with an increased risk of unprotected sex, acquiring sexually transmitted infections (STIs), and unwanted pregnancy (French et al.,

2003; Ghebremichael et al., 2009; Heywood et al., 2015). Explaining further, de Graaf et al. (2009) also observed that early sex and sequences of sexual trajectories are related to health outcomes. Early initiation of sex exposes teenagers to the risk of unintended pregnancy and sexually transmitted infections (STIs), including Human Immunodeficiency Virus (HIV) (Kumi-Kyereme et al., 2007; Hindin et al., 2009). Similarly, Li et al. (2015) revealed in their study among Chinese graduates that, females who engage in early sex were more likely to have first sex with men who were not their "boyfriends" and less likely to take contraception, to use a condom at first encounter, to use contraception consistently in past year, and/or to use condom consistently during the course of a sexual intercourse. They were more likely to have multiple lifetime and concurrent sexual partners, to report pregnancy, and be diagnosed with sexually transmitted diseases.

Early sex also has the potential to lead to low status of women, high fertility and poverty (Eliason et al., 2013; ICRW, 2012; Johnson et al., 2011). It can also lead to death as a result of unsafe abortion because young girls may not have the means of preventing pregnancy through safe sex (Krugu et al., 2016; Eliason et al., 2013) and do not have adequate resources and networks to seek safe abortion services. Adolescents who have initiated sexual intercourse during early adolescence were more likely to have used drugs, alcohol, and engaged in delinquent activities compared to those who have not engaged in sexual intercourse at early ages (Kastbom et al., 2015; Paul et al, 2000; Ketterlinus et al, 1994). Pettifor et al. (2004) posit that women who experience early sexual debut are more likely to participate in high-risk behaviours and experience unintended pregnancy, HIV and sexually transmitted infections (STIs). Similarly, Thomas (2009), Laga et al. (2001) and Kaestle et al. (2005) have all argued that early age of coital debut contributes to young women's heightened susceptibility to HIV. Godha et al. (2013) made similar observation

among young people in Rwanda and revealed that having sex at an early age (defined as 17 years of age or younger) was significantly associated with incident HIV. Therefore, reducing exposure to early age at first sexual intercourse has been advocated as a means to reduce the incidence of HIV infection and other RH outcomes in young women (Pettifor et al, 2004; Laga et al, 2001).

2.5 Early marriage

Worldwide, more than 60 million women aged between 20 and 24 are married before they reached the age of 18 (WHO, 2011; Chae, 2013; ICRW, 2010; UNFPA, 2013). However, incidence of early marriages is more pronounced in rural areas, among the poor, as well as in the West Africa sub-region (Chandra- Mouli et al., 2013; Dahl, 2010; UNICEF, 2012). Early marriage still remains one of the cankers of developing countries, especially those in Asia, Latin America and Africa (USAID, 2015; Nguyen and Wodon, 2014). The developing world has the highest rate of child marriages with 20-50% of women getting married before age 18 (USAID, 2015; ICRW, 2013; UNFPA, 2013). Age at marriage is rising throughout sub-Saharan Africa however. Despite this development, about 40% of 20-24 year olds who marry under 18 live in sub-Saharan Africa (Walker, 2012; UNICEF, 2014). Within sub-Saharan Africa, West Africa has the highest incidence of early marriages (Walker, 2012). For instance, more than half of girls marry before age 18 in many countries in the region (UNICEF, 2014; ICRW, 2013; UNFPA, 2013). Despite legislative efforts to prevent the practice, high levels of child marriage still persist throughout much of sub-Saharan Africa (UNICEF,2013).

Generally, early marriage has been defined as any marriage that involves an individual that is aged less than 18 years (UNICEF, 2001). This is in consonance with the UN charter of child rights, which defines a child as someone who is under the age of 18 unless

national laws recognise an earlier age of maturity (UN, 1989). Ghana's children's Act 1998 supports this assertion in section 13(2) that a person of 18 years and above may legally enter into marriage (Koski et al., 2017). The legally prescribed marriageable age in some jurisdictions is below 18 years, especially in the case of girls; and even when the age is set at 18 years, many jurisdictions permit earlier marriage with parental consent or in special circumstances such as teenage pregnancy (Dahl, 2010; UNICEF, 2012). In certain countries, even when the legal marriage age is 18 years, cultural traditions take priority over legislative law. By 2010, twenty five countries had set a minimum legal age for marriage at 18 years or older (United Nations 2011). Guinea, Niger, Togo, Chad, the Democratic Republic of Congo, and Zimbabwe were exceptions and had legal minimums between 15 and 17 years of age (Koski et al., 2017). Today, early marriage is still fairly widespread, particularly in developing countries, such as parts of Africa, South Asia, Southeast Asia, West Asia, Latin America, and Oceania. However, even in developed countries such as the United States, legal exceptions mean that 25 US states have no minimum age requirement. Since 2015, the minimum marriageable age throughout Canada is 16 (Chandra- Mouli et al., 2013; Dahl, 2010; UNICEF, 2012). In 2010 for example, the National Center for Health Statistics report revealed that 2.1% of all girls in the US, 15-17 age group were in a child marriage. In the 15-19 age group, 7.6% of all girls in the United States were formally married or in an informal union (Chandra- Mouli et al., 2013; Dahl, 2010; UNICEF, 2012). In a similar vein a 2013 UNFPA report also claimed that 53% of all married women in Afghanistan were married before age 18, out of which 21% were married before age 15. Afghanistan's official minimum age of marriage for girls is 15 with father's permission (Hamid et al, 2011.).

Many other countries in the Middle East and North Africa that recognize Sharia as a source of law have set the marriage age at 18 or higher, with some allowing exceptions in

limited circumstances. These include: Algeria, Egypt, Iraq, Libya, Tunisia, Morocco, Jordan, Oman, and the United Arab Emirates. Over half of Yemeni girls are married before 18, some by the age eight (Parsons et al., 2014). Yemen government's Sharia Legislative Committee has blocked attempts to raise marriage age to either 15 or 18, on grounds that any law setting minimum age for girls is un-Islamic (Parsons et al., 2014). According to UNICEF's 2009 report, 47% of India's women aged 20–24 were married before the legal age of 18, with 56% married before age 18 in rural areas. The legal age of marriage in Iran for girls is 13 years; however, some girls are often forced into marriage as young as below the age of 10 years (Parsons et al., 2014; UNICEF, 2012).

In 2015, Spain raised its minimum marriageable age to 16 from 14 (ICRW, 2010). In Mexico, marriage under 18 is allowed with parental consent, from age 14 for girls and age 16 for boys (UNICEF, 2016; Parsons et al., 2014). In Ukraine, in 2012, the Family Code was amended to equalise the marriageable age for girls and boys to 18, with courts being allowed to grant permission to marry from age 16-years if it is established that the marriage is in the best interest of the youth.

African countries have enacted marriageable age laws to limit marriage to a minimum age of 16 to 18, depending on jurisdiction. In Ethiopia, Chad and Niger, the legal marriage age is 15, but local customs and religious courts have the power to allow marriages below 12 years of age (Doyle et al., 2012; UNICEF, 2014). The countries with the highest observed rates of child marriages below the age of 18 are Niger, Chad, Mali, Bangladesh, Guinea and the Central African Republic, with a rate above 60% (Doyle et al., 2012; UNICEF, 2014).

In Ghana however the highest prevalence of child marriage occurs in the three Northern regions, where more than one in three girls marry before age 18 (De Groot, 2018; 2014 GDHS; GSS, 2013).

2.5.1 Causes of early marriage

There exists substantial research on some factors that contribute to early marriage, and its consequences (Jain et al., 2007; Klugmanetal, 2014; Malhotra et al., 2011; Lloyd, 2005; Santhya, 2010; Haberland et al., 2006; UNICEF, 2005; UNFPA, 2012; UNICEF, 2014; Vogelstein, 2013). Early marriages are largely influenced by cultural beliefs, poverty and societal pressure. It occurs more frequently among girls who are the least educated, poorest and living in rural areas (GDHS, 2014; Santhya, 2010; UNICEF, 2014).

Early marriages were common in the past for a variety of reasons including poverty, insecurity, as well as for political and financial reasons (Muller, 2007; Ramu et al., 2008; Parsons et al., 2014). In many tribal systems, a man pays a bride price to the girl's family in order to marry her (Mathur et al., 2003). A sense of social insecurity has been a cause of child marriages across the world (Ipas, 2009; ICRW, 2010; UNICEF, 2014). In Nepal for example, parents fear likely social stigma if adult daughters (past 18 years) stay at home (Maharjan et al., 2012)

ICRW (2012) study on child marriage in Bangladesh, India and Nepal found that the major causes of child marriage include various normative and structural factors such as tradition, familial economic situation, and education and work opportunities available to women. The poorest countries have the highest child marriage rates, and early marriage is most common among the poor who have fewer resources and opportunities to invest in alternative options for girls (ICRW, 2012). Matlabi et al. (2013) and Saadat et al. (2010) found in their various studies that socio-economic and cultural factors are the main determinants of age at marriage in Iran.

Tradition and religion can also be blamed for early marriage (Karam, 2015; Walker, 2015). In many societies, parents are under pressure to marry off their daughters as early as possible in an effort to prevent her from becoming sexually active before marriage; a

woman who does so brings dishonour to her family and community. Religious values are the source of moral prescriptions for many individuals; the teachings of some religious organizations are likely to play a role in the formation of individual attitudes, values and decisions. The extent to which religion influences individual attitudes, and behaviour however depends on specific doctrines and policies of faiths and on the degree of integration and commitment of individuals to their particular religious institutions (Odimegwu, 2005). Many Christian religious groups have strong opposition to premarital sex, although such opposition is more radical among the Pentecostal and Evangelical religious movements. While the latter can sanction their members by excommunication, the former can tolerate the offending members with the hope that they will turn a new leaf. This differential institutional commitment to premarital sexual abstinence leads to the expectation that individual Catholics and Evangelical Protestants would be less accepting of premarital sex than Non-Fundamentalist Protestants. Those with no religious affiliation would be most likely to accept and engage in premarital intercourse (Green, 2001).

Most religions, over history, have also influenced the marriageable age of girls (Vogelstein, 2013; Kempadoo, 2001). Christian ecclesiastical law for example forbade marriage of a girl before the age of puberty (Parsons et al., 2014). Hindu Vedic scriptures mandated the age of a girl's marriage to be adulthood, which was defined as three years after the onset of puberty (Parsons et al., 2014). Jewish scholars and Rabbis strongly discouraged marriages before the onset of puberty, but in exceptional cases, girls aged 3 through 12 can be given in marriage by her father. Some Islamic marriage practices have permitted marriage of girls below the age of 10. Ameh et al. (2007) also observed that, Islamic countries and communities with majority Muslim populations tend to have higher rates of child marriage. However, child marriage is also a phenomenon in Christian, Hindu and secular countries (Ameh et al., 2007). Some mainstream Islamic scholars have

suggested that it is not the chronological age that matters; marriageable age under Muslim religious law is the age when the guardians of the girl feel she has reached sexual maturity. Such determination of sexual maturity is a matter of subjective judgment, and there is a strong belief among most Muslims and scholars, based on Sharia, that marrying a girl less than 13 years old is an acceptable practice for Muslims (Parsons et al., 2014).

Fear of crime such as rape, which would not only be traumatic but may lead to less acceptance of a girl if she becomes a victim of a rape is another driver of early marriage in some contexts (Madkour et al., 2010; Ekundayo et al., 2007). In support of this, Sarker et al. (2012) study in six administrative divisions of Bangladesh, including both rural and urban areas, argued that fear of sexual harassment drive parents to marry off their adolescent girls. Also in other cultures, the fear is that an unmarried girl may engage in illicit relationships (Parsons et al., 2014; UNICEF, 2012; Madkour et al., 2010) or elope, causing a permanent social blemish to her siblings, or that the impoverished family may be unable to find bachelors for grown up girls in their economic social group. Similarly, Alhassan (2010) also observed that early marriage is seen as a religious requirement to protect the sexuality of girls in the northern region of Ghana (Alhassan, 2010). Such fears and social pressures have been proposed as causes that lead to child marriages (Dahl, 2010; UNICEF, 2012).

In a related view, Hague et al. (2011) and Okonofua (2013) argue that in many contexts, child marriage is legitimised by patriarchy, and elevated by family structures, which ensure that marriage transfers a father's role over his girl child to her future spouse. Parents are under pressure to marry off their daughters as early as possible in an effort to prevent her from becoming sexually active before marriage; a woman who does so brings dishonour to her family and community. Because marriage often determines a woman's status in many societies, also local myths encourage earlier marriage of girls – such as in

the Amhara Region of Ethiopia, where people perceive menstruation to be induced by intercourse – and such myths encourage earlier marriage of girl (Okonofua, 2013)

Segni (2002) contend that communities where prevalence of child marriages is high do not have strong social pressure on families to conform. Myers (2013) extends the above argument by noting that child marriage is traditionally recognised as necessary for controlling girls' sexuality and reproduction, and that cultural and religious notions of a girl's virginity and chastity in many societies are directly linked to the honour and status of a family or clan. This means that there is tremendous pressure on parents to marry off girls early to preserve family honour and minimise the risk of improper sexual activity or conduct. Indeed, girls are perceived as incapable of protecting themselves through their own agency, such that girls in rural communities may be withdrawn from school at first menstruation to restrict their movements in order to protect their sexuality (Hervish et al., 2011). This is also linked to the belief that girls' education will, in the long term, adversely influence their future roles as wives and mothers, leading families to continue justifying child marriages (Alhassan, 2013; Atsem, 2014; Hervish et al., 2011).

Forced child marriage also is a route to cementing family, clan, and tribal connections or settling obligations (Hague et al., 2011). According to UNFPA (2013), in many traditional settings, poor families use the early marriage of daughters as a strategy for reducing their own economic vulnerability, shifting the economic burden related to a daughter's care to the husband's family. Unfortunately, while this strategy may in some instances place the girl in a better-off family environment, in many cases the negative effects reinforce her vulnerability and that of her children to poverty in her marital home (UNICEF, 2012; UNFPA, 2013). Explaining further, Meyers (2002) argue that greed is a major part of arranging early marriages, as parents and guardians are more motivated by financial benefits than by the well-being of their daughters. However, the short-term economic

reasons that influence parental choice does not serve the long-term interests of girls (Meyers, 2002).

Poverty is recognised as a major deciding factor for early marriage of girls especially in poorer households where girls are viewed as additional burden on family resources, they tend to be married off earlier as a family survival strategy. Segni (2002) noted that poorer households marry off their younger daughters at an earlier age to secure their future. The general demand for younger brides can also force poorer families to want to marry out their daughters early so as to avoid having to pay higher dowries. A situation which put younger girls from poorer families at more risk of early marriage (Jensen and Thornton 2003). UNICEF (2014) further explains that girls who marry young are more likely to be poor and remain poor (UNICEF, 2014). This is largely because girls who marry young do not receive the educational and economic opportunities that help lift them out of poverty (UNICEF, 2014). Indeed, Matlabi et al. (2013) and Sabbe et al. (2013) observed in Bangladesh that poverty has often led to parents 'marrying off' their daughters when in reality they were being trafficked into prostitution. Matlabi et al. (2013) further noted that early marriage is often perceived as the only alternative for girls, particularly in situations of high insecurity and conflict – such as in crowded refugee camps or where people are under the control of rebels in war situations. Ampofo (2001) and Adhikari et al. (2010) further contend that when a girl is married early, this reduces the economic burden on the family in caring for the girl, and also increases family assets. Explaining further Meyers (2002) argued that greed has also become a major part of arranging early marriages as parents and guardians are more motivated by financial benefits than by the well-being of their daughters. The International Planned Parenthood Foundation (2015) puts it bluntly, "the face of poverty is female". The foundation estimates that women account for two-thirds of the 1.4 billion people currently living in extreme poverty and make up 60 per

cent of the 572 million working poor in the world. A chronic lack of income severely impacts on household decision-making and may result in girls being viewed as an economic burden. For example, a girl from a poor household in Senegal is four times more likely to marry as a child than a girl from a rich household (ICWR, 2007). As in other parts of South Asia, girls in Nepal are often seen as an economic burden to the family, due to dowry. Parents often compel young girls to marry, because older and more educated men can demand a higher dowry (Razack, 2004).

2.5.2 Effects of early marriage

Early marriage can affect a girl's physical and mental well-being in a number of ways. Girls who are married young experience higher rates of malnutrition, isolation, and depression (Nour 2009; Le Strat, et al., 2011). According to Sibanda (2011), child marriage remains a widely ignored violation of the health and development rights of girls and young women. The effects of child marriage not only have serious and lifelong negative consequences on girls but also on their children, their families, communities and country. Sibanda (2011) have argued that early marriage is culturally packaged as a social necessity, but in many cases this amounts to socially licensed sexual abuse and exploitation of a child.

UNFPA (2013) and Walker et al. (2013) observed that early marriage is associated with poor sexual and reproductive health. Child brides are often unable to negotiate safe sex with their husband, making them more susceptible to sexually transmitted infections, including HIV, and putting them at higher risk for early pregnancy. In Uganda, child marriage is associated with an increased likelihood of lifetime induced abortion (Kaye et al., 2007). Child brides are also less likely to receive proper medical care during pregnancy and delivery than those who give birth later (UNFPA, 2017; ICRW, 2010). The combination of girls being physically immature and the lack of proper medical care during

pregnancy and childbirth put adolescent mothers at higher risk for complications during gestation and delivery, including prolonged or obstructed labour, fistula and death (UNICEF, 2014; UNFPA, 2013; WHO, 2014; Xu et al., 2003). Complications of pregnancy and childbirth are the second leading causes of death among adolescent girls aged 15– 19years globally, with nearly 70,000 dying each year. UNICEF (2014) reported that a girl under the age of 15 is five times more likely to die during pregnancy and childbirth than a woman in her 20s. Risks extend to infants too: if a mother is under age 18, her baby's chance of dying in the first year of life is 60% greater than that of a baby born to a mother older than 19.

Negative health consequences of child marriage include poorer maternal and reproductive health, increased risk of HIV and other sexually transmitted infections, intimate partner violence and maternal mortality (Kidman, 2016; Santhya, 2010; Nour 2009; Clark, 2004). Moreover, early childbearing increases risks to women's health, as maternal disorders including complications during pregnancy and child birth are the leading cause of death among women aged 20–24 years globally and the second leading cause among adolescent girls aged 15 to 19 years (Le Strat et al., 2011). In addition, girls who marry early are at a higher risk of intimate partner violence, poorer mental health and limited decision making power due to power imbalances within their marriage (Kidman, 2016; Santhya, 2010; Jain et al., 2007). Child marriage is also associated with adverse economic outcomes, including lower educational attainment, lower socioeconomic status, and higher rates of poverty (Delprato et al., 2015). Further, the adverse consequences of early marriage are intergenerational. Children born to women affected by child marriage have higher mortality rates, are more likely to be born prematurely or with low birthweight and have poorer health and nutritional status (Raj et al., 2010; Adhikari, 2003).

Girls who are married early experience higher levels of depression, anxiety, and isolation than those married later, and higher levels of self-harm and suicide (Carbone-Lopez 2006). Child marriage can be traumatic for girls, especially in cases of marriage by abduction which can result results in trauma, unwanted pregnancy and the spread of sexually transmitted Infections including HIV/AIDS. A situation which affects girls' mental health, leading to depression and anxiety.

Even if no causal link between child marriage and suicide has been documented, there is a correlation between early marriage and poor mental health (Carbone-Lopez 2006). A girl's nutritional status can decline if she marries early. This could be linked to poverty within the household or to traditional gender norms around women's role and place when it comes to meals, resulting in malnutrition (Nour, 2009). Both the mental and nutritional health effects are largely reflective of the social position young brides typically occupy in their households.

The lack of voice and agency in household decision-making and civic participation that typically accompanies child marriage also limits girls' input into community and national decision-making. In addition, married girls often lack the ability to negotiate sexual activity, contraceptive use, or birth spacing with their husbands (Raj 2010). Within her marital household, a young wife typically has little bargaining power and ability to make decisions regarding various aspects of her life. Research suggests that women's greater involvement in political decision-making increases the likelihood of greater investment in social services, including those directly related to economic growth, such as education (Beaman et al. 2012).

The educational opportunities for very young girls and their ability to develop social networks outside of their families may be curtailed to a greater degree simply as a result of their age. Women who marry as children have fewer years of schooling than those who

marry as adults, potentially leading to lower labour force participation and poorer long-term economic opportunities for themselves and their families (Jejeebhoy 1995; Field and Ambrus 2008; Parsons et al. 2015). UNFPA (2012) indicated that girls with no education are three times more likely to marry before the age of 18 than those with secondary or higher education. Therefore, when a girl is not able to go to school and receive an education, this can have a knock-on effect on her future work opportunities as well as her social, economic and political standard of living (Lloyd 2005; Santhya et al., 2006; Jain & Kurz 2007; UNFPA, 2012; Klugman et al., 2014; Malhotra et al., 2011; UNICEF, 2014; Vogelstein, 2013).Social norms and gender-related inequalities often reinforce poverty in girls who marry early.

2.5.3 Consent to marriage partner

The literature reflects a lack of consensus on the differences or distinction between forced or arranged marriages. Anis et al. (2013) stress the need to avoid the conflation of forced and arranged marriages, stating that lack of consent is the critical distinguishing factor in a forced marriage. They argue that an arranged marriage differs from forced marriage in that while the families of both parties take a leading role in arranging the marriage, the choice of whether or not to accept the arrangement remains with the prospective parties (Anis et al, 2013). For the purposes of this study, non-consensual marriages /consent to marriage partner is any arrangement in relation to marriage partner which does not seek the consent of the woman.

Non-consensual marriages were very common throughout the world until the 18th century (O'Brien .2008). Typically, marriages were arranged by parents, grandparents or other relatives. Some historical exceptions are known, such as courtship and betrothal rituals during the Renaissance period of Italy and Gandharva marriages in the Vedic period of Indı (James et al., 2001). Non-consensual marriages have however declined in prosperous

countries with social mobility and increasing individualism; nevertheless, arranged marriages are still seen in countries of Europe and North America, among royal families, aristocrats and minority religious groups such as in placement marriage among fundamentalist Mormon groups of the United States (O'Brien .2008). Although forced marriage in Europe is most often associated with the immigrant population, it is also present among some local populations, especially among the Roma communities in Eastern Europe (UNFPA, 2008)

In most other parts of the world non-consensual marriage continue in varying degrees and increasingly in quasi-arranged form, along with autonomous marriages (O'Brien .2008). For instance, according to Human Rights Watch, Malawi has widespread child and non-consensual marriage and half of the girls marry before 18 (UN, 2010). The practice of bride price, known also as lobolo, is common in Malawi, and plays a major role in forced marriage. Wife inheritance is also practiced in Malawi. After marriage, wives have very limited rights and freedoms; and general preparation of young girls for marriage consists in describing their role as that of being subordinated to the husband (UN, 2010).

As many as 80 percent of marriages in Afghanistan take place without the consent of the bride, who is often a child. Many of them see killing themselves as the only way out. (2012- Afghanistan Independent Human Rights Commission report.) According to the UN, as of 2008, 70 to 80% of marriages in Afghanistan were non-consensual, taking place without full and free consent or under duress (UN, 2010). A report by Human Rights Watch found that about 95% of girls and 50% of adult women imprisoned in Afghanistan were in jail on charges of the "moral crimes" of "running away" from home or zina (UN, 2010). The Human Rights Watch report stated that non-consensual marriages remains common for Kurdish girls in Iran and is also one of the major reasons for self-immolation in Iran. Similarly, UNICEF's 1998 report found extremely high rates of forced marriages,

including at an early age, in Kurdistan in Iran, although it noted that the practice appeared to be declining. It has been argued that Kurdish cultural norms which facilitate the practice of forced and non-consensual marriage perpetuate the fear of violence among Kurdish girls in Iran (Coleman, 2004).

Forced marriage is common in Niger (Niger DHS, 2012). Niger has the highest prevalence of child marriage in the world (Niger DHS, 2012), and also the highest total fertility rate (Niger DHS, 2012). Girls who attempt to leave non-consensual marriages are most often rejected by their families and are often forced to enter prostitution in order to survive (Niger DHS, 2012). Due to the food crisis, girls are being sold into marriage in Niger (Niger DHS, 2012). In South Africa, ukuthwala is the practice of abducting young girls and forcing them into marriage, often with the consent of their parents (South Africa DHS, 2003). The practice occurs mainly in rural parts of South Africa, in particular the Eastern Cape and KwaZulu-Natal provinces (South Africa DHS, 2003). The girls who are involved in this practice are frequently under-aged, including some as young as eight (South Africa DHS 2003).

In Ghana about 27.4% of young girls are forced into marriage either by their parents or guardians (MICS, 2011). Non–consensual marriages are common in Northern Ghana and are associated with poor health, increased child mortality, and low agency among women in this sample of extremely poor households (De Groot, 2018).

Sharing a contrary view Rosenfeld (2013) argues that the differences between autonomous marriages and non-consensual marriages are empirically small; many people meet, date and choose to marry or cohabit with those who are similar in background, age, interests and social class they feel most similar to, screening factors most parents would have used for them anyway. Assuming the pool from which mates are screened and selected is large.

Rosenfeld suggests that the differences between the two approaches to marriages are not as great as some imagine them to be (Rosenfeld, 2013).

2.5.4 Reasons for Non-consensual marriages

There are numerous factors which can lead to a culture which accepts and encourages non-consensual marriages. Reasons for performing non-consensual marriages include: strengthening extended family links; controlling unwanted behaviour and sexuality; preventing 'unsuitable' relationships; protecting and abiding by perceived cultural or religious norms; keeping the wealth in the extended family; dealing with the consequences of pregnancy out of wedlock; considering the contracting of a marriage as the duty of the parents; obtaining a guarantee against poverty; and aiding immigration.

Globally, forced child marriage is much more common in poorer countries and regions, and within those countries, it tends to be concentrated among the poorest households. For example, a girl from a poor household in Senegal is four times more likely to marry as a child than a girl from a rich household. In impoverished situations, parents see few alternatives for their daughters, aside from early marriage (ICRW, 2015).

Poverty plays a central role in perpetuating child marriage (ICRW, 2015; UNICEF, 2012). Parents want to ensure their daughters' financial security; however, daughters are considered an economic burden. Feeding, clothing, and educating girls is costly, and girls will eventually leave the household. A family's only way to recover its investment in a daughter may be to have her married in exchange for a dowry. In some countries, the dowry decreases as the girl gets older, this may tempt parents to have their daughters married at younger ages. These are not necessarily heartless parents but, rather, parents who are surviving under heartless conditions. Additionally, child marriages form new alliances between tribes, clans, and villages; reinforce social ties; and stabilize vital social status.

The leading cause of non-consensual marriage is gender inequality, whereby girls and women are perceived to be commodities unable to make proper decisions about who and when to marry. According to CARE (2015) - the undervaluing of girls and restricting them to domestic and reproductive roles; patriarchal control over adolescent sexuality, particularly female sexuality; gender-based violence (GBV) and the fear of GBV; and the commodification of girls and/or the marital exchange. Girls' own limited perceptions of future opportunities beyond marriage, low social status or abuse within the parental household, marriage as the only legitimate path to sexual activity, and internalization of traditional social norms play a role in girls' acceptance. Also girls and women are forced to become brides because it is easier to control them. In the case of girls, their virginity can be guaranteed and they have longer reproductive periods in which to produce more children. This culturally-justified patriarchy, while universal in scope, manifests in different practices and beliefs according to local context (OCHCR, 2013).

In many societies, frameworks of "honor" underpin notions of sexual morality, the proper and improper behavior of women, and the reputation of men within the larger community. For a man and his family, honor is understood as the sexual integrity and chastity of the women in the family, e.g. mother, wives, sisters, and daughters. Because honor is seen to reside in the bodies of women, it operates to control, direct, and regulate women's sexuality and freedom of movement by their male relatives.

Puri (2009) study in Nepal reveals that due to the patriarchal family structure, mostly women are suppressed of decision making. Especially girls in rural areas have little or no to say about whom and when they marry. Also a study conducted by Simkhada et al. (2010) revealed that openly discussing sexual and reproductive health issues is still a taboo in Nepal (Simkhada et al. 2010). Friendship between a boy and a girl is still unacceptable in Nepal and mostly in rural places, parents even discourage their daughters

talking or meeting with boys. Sexual activities before marriage or outside marriage are not accepted among the majority of Nepalese societies. Forced and consensual marriages are the norm.

Non-consensual marriage also is a route to cementing family, clan, and tribal connections or settling obligations. For example, in Pakistan's Northwest Frontier Province, Afghanistan and in some parts of the Middle East, marrying young girls is a common practice to help the grooms' families offset debts or to settle inter-family disputes. At its core, forced child marriage is rooted in tradition. An Ethiopian study found that early marriage had become a norm in Ethiopia simply due to its feudal background, where marriage was used as a means to establish or strengthen relationships with a family to ensure social, economic or political benefits (ICRW, 2007). A 2007 ICRW study found that no one religious affiliation was associated with the practice. Rather, a variety of religions were associated with a high prevalence of forced child marriage, in a diversity of countries throughout the world.

UNICEF (2015) further contends that non-consensual marriages are informed by culture and tradition which are important aspects in people's lives, as they are a strong foundation of one's faith and beliefs. Some cultures believe their family can only be respected if their children marry within certain families (UNICEF, 2015). Arrangements are made for their child to marry the person of the parents or elders' choice and the child has no say (UNICEF, 2015). Parents may find themselves under pressure from extended family to marry off their children and in some cases the decision of who their child will marry is made in infancy (UNICEF, 2015).

Activists such as Bunch (1995) suggest that marriages arranged by parents and other family members, typically assume heterosexual preference and involve emotional pressure; this drives some individuals into marriages that they consent under duress

(Bunch, 1995). Bunch suggests that marriages should be autonomous. In contrast, preventing arranged marriages may harm many individuals who want to get married and can benefit from parental participation in finding and selecting a mate (ICRW, 2007).. For example, Lee, (2013) explain that arranged marriages work because they remove anxiety in process of finding the spouses. Parents, families and friends provide an independent perspective when they participate in learning and evaluating the other person, past history, behaviour, as well as the couple's mutual compatibility. Lee, (2013) further suggests that parents and family provide more than input in the screening and selection process; often, they provide financial support for the wedding, housing, emotional support and other valuable resources for the couple as they navigate past the wedding into married life, and help raise their children.

Parents arrange non-consensual marriages to ensure their child's financial security, reinforce social ties, believe it offers protection, and reduce the daughters' economic burden on the family due to how costly it is to feed, clothe and (optionally) educate a girl (UN, 2016). In impoverished communities, every adult mouth to feed becomes a continuing burden. Because in many of these cultures women have difficulty finding gainful employment (or are simply prohibited from doing so), daughters become the greatest burden to the family (UN, 2016). Some scholars argue, therefore, that arranging a marriage of a daughter becomes a necessary means to reduce this burden (ICRW, 2007). Poverty, thus, is a driver of arranged marriage (UN, 2016). By marrying their daughter to a good family the parents improve their social status by establishing a social bond between each other (UN, 2016).

2.5.5 Effects of non-consensual marriages

Non-consensual marriage has implication for the woman. Previous studies show that those who enter non-consensual marriages are less satisfied with marital relationships, face

more restrictions from their husbands, and have less decision-making power (Adinkrah, 2011; Boakye, 2009; Biney, 2010).

The consequences of child marriage are devastating and often determine a life's trajectory. Girls who marry young are at a higher risk of dying during childbirth, having their child die before its first birthday, contracting HIV and becoming a victim of domestic violence. Also girls in non-consensual marriages are more likely to be abused sexually, physically and emotionally. An ICRW (2005) study in India shows that girls who married before age 18 reported experiencing physical violence twice as often, and sexual violence three times as often as girls who married at a later age.15 Non-consensual marriages deprive young girls of their childhood(UNICEF, 2015). They are thrust into the full burden of domestic responsibility, motherhood and sexual relations rather than playing with friends, dreaming about a career or fretting about a school exam (UNICEF, 2015).

Non-consensual marriages can contribute to girls being placed in a cycle of poverty and powerlessness (UN, 2016). Most are likely to experience mistreatment such as violence, abuse and forced sexual relations. This means that women who marry younger in age are more likely to be dominated by their husbands (UN, 2016). They also experience poor sexual and reproductive health. Young married girls are more likely to contract HIV and their health could be in jeopardy. Most people who are forced into non-consensual marriage lack education and are often illiterate. Young ones tend to drop out of school shortly before they get married (UN, 2016).

Forced marriages are often related to violence, both in regard to violence perpetrated inside the marriage (domestic violence), and in regard to violence inflicted in order to force an unwilling participant to accept the marriage, or to punish a refusal (in extreme cases women and girls who do not accept the marriage are subjected to honor killings). Honour based violence or killing is violence perpetrated with the goal of restoring or

protecting the honor of oneself, family or community. Due to social norms that devalue women as individuals and human beings, honor violence or killing is mostly-though not exclusively –committed against women and girls. It is committed as a punishment and redemption for the perceived shame or disgrace a woman has brought upon her family and/or community.

There is a difference in observed divorce rates between various consensual and non-consensual types of marriages. The divorce rate in Islamic countries with consensual marriages such as Saudi Arabia, Turkey, Egypt, Qatar, Jordan is between 20% and 35% in contrast to less than 10% divorce rates in non-consensual marriages among Amish people, Hindus and Orthodox Jews (UNFPA, 2008).

2.6 Reproductive Health (RH) Outcomes

There has been substantial research over the last decade on the consequences of early reproductive decisions of early sex and early marriage (Alhassan, 2013; Atsem,2013; Jain et al., 2007; Klugmanetal, 2014; Malhotra et al., 2011; Lloyd, 2005; Santhya et al., 2011; UNICEF, 2005; UNFPA, 2012; UNICEF, 2014; Vogelstein, 2013). Studies by Heywood et al. (2015) show early sex increases the risk of teen pregnancies, teen births, and having an abortion, while findings on STIs and contraceptive use have been mixed. The timing of first sexual intercourse and the context in which it occurs both have health implications (UNFPA, 2012; UNICEF, 2014). This section presents literature on all RH outcomes of interest in this study; namely: fertility, unintended pregnancy, spousal communication and gender-based violence.

2.6.1 Fertility

There is fair amount of literature suggesting that fertility transition in sub-Saharan Africa has been comparatively slow relative to other parts of the developing world (Casterline

2001; Bongaarts 2008; Shapiro and Gebreselassie 2008; Bongaarts and Casterline 2013; Shapiro et al. 2013). In Africa women have 4.5 children on average, while in Asia the figure is 2.1 children, in Latin America 2.0, in North America 1.9 and in Europe 1.6. On average across the world women had 2.5 children in 2017 (Shongkour et al, 2017). The high fertility rate is driving rapid population growth in Africa. Under the United Nations' "medium scenario", Africa's population will be four times bigger than it currently is by the end of the century (Shongkour et al,2017).

High fertility is still persistent in Africa, even though recent studies have indicated that there have been some declines (Bongaarts, 2011). According to UNICEF (2013), early sexual activity among girls may lead to a prolonged exposure to childbearing (UNICEF,2013).

Fertility in sub-Saharan Africa stood at 5.1 births per woman in 2005–10 (United Nations 2011), more than double the replacement level. This high fertility combined with declining mortality has resulted in rapid population growth —2.5% per year— and the UN projects sub-Saharan Africa's population to grow from 0.86 billion in 2010 to 1.96 billion in 2050 and 3.36 billion in 2100 (Bongaarts et al., 2014). Such unprecedented expansion of human numbers creates a range of social, economic, and environmental challenges and makes it more difficult for the continent to raise living standards. Hence the growing interest in demographic trends in Africa among policymakers.

2.6.2 Causes of fertility

Varied reasons account for high fertility. Preference for large families continues to be a major factor determining levels of fertility in Sub-Saharan Africa. Recent data from Ghana's DHS (2014) demonstrate reasons why men and women prefer and choose to have large families. Though factors influencing women's decisions are complex and vary from one society to another, there are also similarities (Koski et al 2017; ICRW,2011).

Culture, religious beliefs, gender relations and low child survival rates - all play a critical role in very personal decisions about reproduction and hence overall fertility levels and trends (Koski et al 2017). It is not always about 'supply side' factors or economic barriers- that is availability of family planning services - the number of children women have is a very personal decision.

Children form of safety net as aging parents struggle to support themselves in the absence of retirement savings and pension funds (Koski et al 2017; ICRW,2011).. Moreover, a large number of children increase the probability that a few will survive to adulthood, serving as form insurance in high child mortality societies (Koski et al 2017; ICRW,2011).

Level of education is closely associated with fertility decline. Women's education is a key factor in controlling fertility challenges (Kumar et al., 2007). Educated women tend to have lower fertility than uneducated women and women with primary education (Kumar et al., 2007). Women who have been to school have fewer children than those who have not (Kumar et al., 2007).

Extended family systems encourage high fertility. Raising of children is the sole responsibility of parents but aunties, uncles, grandparents and even friend all support in the upbringing of children which could serve as a motivation for high fertility (Bryant 2007; Odu & Ayodele, 2007). If having another child entails no extra cost because he or she will be cared for by someone else, then there is less incentive to limit family size (Bryant 2007; Odu & Ayodele, 2007). Fertility challenges could also be informed by desire for more children to support with family enterprises such as farming and for security in old age. In addition, high child mortality leads parents to have additional children to protect against loss or to replace losses (Bryant 2007; Odu & Ayodele, 2007).

2.6.3 Effects of fertility

According to the World Health Organization estimates, about 210 million pregnancies occur each year, one-third of which are unintended (WHO, 2011). Most of them end in still births, miscarriages, and induced abortions (WHO, 2011). Five million women are hospitalised each year for treatment of abortion complications such as hemorrhages and sepsis (Singh, 2006). When abortion is restricted by law and women have limited access to safe abortion, the rate of unsafe abortion increases (WHO, 2015).

Negative health consequences of high fertility include poorer maternal and reproductive health, increased risk of HIV and other sexually transmitted infections, intimate partner violence and maternal mortality. Moreover, high fertility increases risks to women's health, as maternal disorders including complications during pregnancy and child birth are the leading cause of death among women aged 20–24 years globally and the second leading cause among adolescent girls aged 15 to 19 years (UNICEF,2015; WHO,2013;WHO,2014). Also in high-fertility regimes, short inter-pregnancy intervals occur more often than in low fertility regimes. Maternal mortality is also more likely at higher pregnancy orders (WHO, 2013). In addition, women with high fertility are at a higher risk of intimate partner violence, poorer mental health and limited decision making power due to power imbalances within their marriage. Effects of fertility can be classified into economic, health environmental and political factors. The most important step required to make progress in addressing high and unwanted childbearing and rapid population growth is for policymakers in Africa to realize that the current demographic trajectory is a major obstacle to their countries' development.

At the macro level, the impact of high fertility on other outcomes could be channeled through the size of the population (implications for the natural environment), the rate of population growth (implications for budgets), or the age distribution of the population

(implications for economic productivity) (WHO, 2013). At the household and individual level, high fertility means not only a large number of births by the end of most women's reproductive careers, but also typically a high incidence of pregnancies at young ages, of unplanned and unwanted pregnancies, and of closely-spaced pregnancies, all of which can affect household and individual welfare (World Bank ,2012).

Children from higher-order births are known to be at greater risk of dying during infancy and early childhood infant (0–1 year), early childhood (1–4 years), and under-five (0–5 years) (Ezeh, 2015). Birth orders 2 and 3 show the lowest rates. By comparison, at orders 7+ neonatal mortality is 43 percent higher and early childhood mortality is 11 percent higher (Ezeh,2015).

There is also literature that looks at the impact of fertility (number of siblings) on schooling outcomes in developing countries (Lloyd 2005; Kelley 1996; Lloyd 1994). Literature show that the higher the level of a woman's educational attainment, the fewer children she is likely to bear. Given that fewer children per woman and delayed marriage and childbearing could mean more resources per child and better health and survival rates for mothers and children, this is an important link (Lloyd 2005; Kelley 1996; Lloyd 1994).

2.6.4 Spousal contraceptive communication

Since the 1994 ICPD, there has been increasing interest directed towards spousal communication in relation to reproductive health issues. The ICPD emphasized on a broader context of reproductive health with a centrality on family planning and on the empowerment of couples in deciding their own reproductive health issues in a free but responsive manner. Empowerment of couples on the issues of desired family size and /or number of children can only be generated through effective interaction and communication with each other. But in a developing country limited communication

between spouses set barriers towards a better understanding of the couples themselves and in making a responsible decision towards achieving the desired family size

Literature emphasises the relevance of spousal contraceptive communication (Manu et al., 2015; Baiden et al., 2011; Hamid et al., 2011; Kumi-Kyereme et al., 2007; Bawah, 2002). The role of communication between husband and wife on desired fertility and, consequently, on contraceptive use is well established (Bawah, 2002; Mosha et al., 2013; Hamid et al., 2011; Hybels et al., 2001; Esere, 2008).

Indeed, inter-spousal communication has been recognized as a key factor for adoption and sustained use of family planning, because it allows couples to discuss what might appear unclear and exchange information that may change strongly held beliefs (Bawah.2002). Mosha et al. (2013) have noted the traditional role of the male as decision -maker, which is evidenced in the area of family planning. Spousal communication is an important basis for decision making about reproductive health, sexual needs and desired family size and increased contraceptive use and modern method choice of family planning (Islam, 2013). A marriage without effective communication is likely to crumble, as communication is a life wire of marriage relationship or any other meaningful relationship (Esere, 2002, 2006).

The communication between husband and wife about family planning and the desired number of children is closely linked to successful contraceptive use (Islam et al., 2010; Bawah, 2002; Mosha et al., 2013). Islam (2013) contends that inter-spousal communication largely influenced couples' contraceptive use and the decision of appropriate method choice. Communication between couples is necessary for successful planning and decision-making about fertility size and use of contraceptive. However unintended pregnancy outcomes, sexually transmitted infections (STIs) transmission and

unsafe abortions can occur due to lack of inter-spousal communication (Islam et al., 2010).

Bawah (2002) also argues that traditional attitudes towards gender relations might reduce effective communication between couples and restrain a wife's freedom to make reproductive decisions. In support of Bawah's (2002) findings, Rasheed et al. (2011) also found that inter-spousal communication was more important in patriarchal societies.

2.6.5 Effects of spousal contraceptive communication

Spousal communication regarding family planning can be an effective way to motivate men for supporting and using contraceptives (Najafi-Sharjabad et al., 2014). Communication may affect contraceptive use through several mechanisms. First, it is helpful for transforming attitudes into the physical act of using contraceptives. Communication regarding desired family size may enable a couple to reach agreement about limiting fertility. Second, communication may enable husbands and wives to exchange practical information about contraceptive methods. Third, once contraceptives are obtained, close com munication may help sexual partners use them effectively and consistently (Link, 2011).

Spousal communication may also lower the "psychic costs" of contraceptive use (Benefo 2010). Psychic costs are the social-psychological forces that bring about negative judgment of contraceptives, causing emotional stress and thus discouraging contraceptive use. Individuals who are inclined to use contraception may not do so if they perceive disapproval from spouses, their extended family, or society. Spousal communication may reduce these psychic costs if one partner conveys a favorable attitude toward contraception, reinforcing that its practice is a socially acceptable behavior (Benefo 2010).

In India, Rasheed et al. (2011) also found that inter-spousal communication was positively associated with contraceptive use. Derose et al. (2004) found that contraceptive use was larger among couples who had discussed family planning. Also Tuloro et al. (2006) considered spousal communication an important factor to contraceptive use in Hossana Town, Southern Ethiopia. They found that couples that have inter-spousal communication were 17.3 times more likely to use contraceptive compared to couples without inter-spousal communication. In fact, in settings where partners communicate little about their desired family size, spouses might be overestimating each other's demand for children. Spousal communication makes possible the reaching of agreement on intentions for child spacing and family size, perhaps leading to consensus regarding the goal of a small-sized family (Avogo & Agadjanian 2008).

2.6.6 Gender Based Violence

There is no single or universal definition of gender-based violence (GBV). Understandings differ according to country, community and legal context. The lack of a clear and commonly accepted language inhibits the development of an effective reporting system and/or databases, and thus restrains prevention, monitoring and advocacy efforts1 (Baker, 2007). The term gender based violence, in its widest sense, refers to the physical, emotional or sexual abuse of a survivor. For the purposes of this thesis however, gender-based violence is taken to refer exclusively to physical abuse.

Evidence suggests that in Ghana 20% of men and about 28% of women have experienced physical, sexual, emotional or economic intimate partner violence (Institute of Development Studies & Ghana Statistical Services & Associates, 2016). Domestic violence – defined as abuse by one person against another in an intimate relationship including marriage, cohabitation, dating or relations within the family – is one of the most common forms of gender-based violence in the world (Abramsky et al., 2011; Ellsberg et

al., 2008; Garcia-Moreno et al., 2006, 2013; USAID, 2006). International studies estimate that approximately 35% of women across the world have experienced physical and/or sexual violence at some point in their lives, largely in the form of domestic violence (García-Moreno et al., 2013). A recent systematic review has reported that at least one in seven homicides and over one third of all female homicides worldwide are perpetrated by an intimate partner (Stockl et al., 2013). Physical and sexual violence are not the only types of domestic violence perpetrated against women: emotionally abusive acts and controlling behaviour are experienced by up to 75% of women worldwide (García-Moreno et al., 2005).

Domestic violence is also associated with persistent forms of gender inequality and adverse health and economic outcomes among victims, including poor physical and mental health, higher risks of the human immunodeficiency virus (HIV) and other sexually transmitted diseases, restricted livelihood options and choices, lower human capital and lower productivity (García-Moreno et al., 2005, 2013; Moosa, 2012).

Gender Based Violence is perpetrated by and against people of all social backgrounds (USAID, 2006; Ellsberg et al., 2008; Abramsky et al., 2011; Garcia-Moreno et al., 2006, 2013). However, gender-based violence against women remains the dark side of society's life (DOVVSU, 2013). Several studies have reported that more than 60% of women worldwide have been abused (Zhao et al.,2012; Fatusi et al., 2006; Krug et al., 2002) In 48 population-based surveys worldwide, 10%–69% of the women reported an assault by an intimate partner (Krug et al., 2002). In addition, the prevalence of violence during pregnancy ranges from 4% to 20% in developing countries (Fatusi et al., 2006).

In sub-Saharan Africa, 13%–49% of women have been reported to be domestically assaulted by an intimate partner and 5%–29% reporting physical violence in the year before the survey (Montero et al., 2013). About 31% of Nigerian women are physically

abused by an intimate partner during their lifetime(Montero et al., 2013). This has been reported to be higher in other studies (Montero et al., 2013).

Gender-based violence against women violates the fundamental human rights of women, undermines their ability to be autonomous, and affects their chances of attaining financial self-sufficiency (Sedziafa, Tenkorang, Yuji, & Owusu, 2016). Various studies have also linked domestic violence to adverse physical, mental and emotional health outcomes (see Alejo, 2014; Campbell, 2002; Sedziafa, Tenkorang, Adobea, & Owusu, 2015). Ezeh (1993), Bawah et al. (1999), Phillips et al. (2006) and Akafuah (2008) agree that many Ghanaian women who used contraceptives feared physical abuse and reprisals from their husbands and extended family members. Hussain and Khan (2008) suggest that in investigating the dynamics of contraceptive use the issue of sexual violence be considered as a factor that leads to unsafe sex and unplanned pregnancies.

2.6.7 Causes of Gender Based Violence

The World Health Organization (2014) has identified the following evidence-supported factors as influencing GBV These include traditional gender norms that support male superiority and entitlement; social norms that tolerate or justify violence against women; weak community sanctions against perpetrators; poverty and High levels of crime and conflict in society more generally. Gender-based violence contributes to, and is exacerbated by, the economic and socio-political discrimination experienced by women in many countries. Women's lack of economic empowerment is reflected in lack of access to and control over economic resources in the form of land, personal property, wages and credit (UN-GA, 2006). Power and the lack of power, is a recurring factor in all types of violence: the powerlessness of survivors, whether women, men or children, is also manifest in their relative lack of resources and access to support institutions.

Research on violence against women further shows an increased risk of physical or sexual violence among women of a younger age, especially those aged 15 to 19 (Krug et al., 2002; WHO, 2005a; Kishor & Johnson, 2004). Women who are separated or divorced (or, to a less degree, cohabiting) report a higher lifetime prevalence of all forms of violence (WHO, 2005a). Alcohol or drug consumption, and previous experience of abuse, also correlate with violence in adulthood (Krug et al., 2002).

The literature holds differing opinions on the relationship between education and sexual violence. The World Report on Violence and Health (Krug et al., 2002) cites South African and Zimbabwean studies that show a correlation between higher levels of female education and increased vulnerability to sexual violence. The authors reason that female empowerment is accompanied by a resistance by women to patriarchal norms, which in turn provokes men to violence in an attempt to regain control (Jewkes et al., 2002). However, they suggest that female empowerment confers greater risk of physical violence only up to a certain level, after which it confers protection (Jewkes, 2002). This theory is supported by evidence from the WHO ((2005a) multi-country study, which found that the protective effect of education started only when women's education progressed beyond secondary school.

Studies have also attributed changes in rates of GBV to changes in gender dynamics within the household (Moore, 1983; Ofei-Aboagye, 1994; Abane, 2003; Adomako Ampofo, 2008; Abramsky et al., 2011; Adinkrah, 2014). For instance, Aizer (2010) showed that increases in women's relative wages and in women's labour force participation resulted in a lower incidence of domestic violence in the USA. In contrast, others have noted that newly economically empowered women may threaten men's identity, resulting in increases in domestic violence. In these cases, husbands may resort to violence to reassert their sense of power (Heath, 2014; Menon and Johnson, 2007;

Tanchen, Witte and Long, 1991). Consistent with these predictions, studies have found that increases in women's labour force opportunities and their access to income and other resources have at times been associated with increases in GBV. This is particularly true if women's initial level of bargaining power before entering the labour market was low (Bobonis et al., 2013; Heath, 2014; Hidrobo and Fernald, 2013; Justino et al. 2012).

Bobonis et al. (2013) argued that younger wives who tend to be more financially dependent on their spouses will be more affected by the consequences of partner violence and also less likely to leave as a result of this dependency. Social attitudes on early marriage coupled with other financial constraints and family pressures make it impossible for many girls to leave abusive marriages. Where the bride wealth is returned at divorce and where families have given their daughters away as gifts in exchange for other favours, girls may not be accepted back (Bobonis et al., 2013).

Cunradi and colleagues (2002) studied socioeconomic predictors of GBV in White, Black, and Latino families and found that annual family income was the greatest predictor of GBV in American families. These authors argued that because of lower income, social stress becomes more prevalent, which results in the positive relationship between low socioeconomic status and GBV (Cunradi et al., 2002). Black and Latina women have also been found to have less education, hold more traditional gender beliefs, and live in more disadvantaged neighborhoods than do White women, which also contributes to risk for GBV exposure (Golden et al., 2013). These findings on socio-economic status are supported by Doku et al. (2015) study on factors that influence women approval of domestic physical violence among Ghanaian women aged 15--49. The study argues that women's financial independence and autonomy provides some form of protection against physical violence. The lack of such resources may not only make women vulnerable to GBV, but also to the approval of such acts of violence.

2.6.8 Effects of Gender Based Violence

Violence against women and children, of both sexes, has gained international recognition as a serious social and human rights concern affecting all societies (ICRW,2007).. Epidemiological evidence shows that violence is a major cause of ill health among women and girls, as seen through death and disabilities due to injuries, and through increased vulnerability to a range of physical and mental health problems (Krug et al., 2002; Mugawe & Powell, 2006). Female survivors of GBV not only sustain physical injuries, but are more likely than other women to have unintended pregnancies, report symptoms of reproductive tract infections, have multiple partners, and less likely to use condoms and other contraceptives (IFPP, 2004; Campbell & Self, 2004). Violence, and the fear of violence, severely limits women's contribution to social and economic development, thereby hindering achievement of the Millennium Development Goals and other national and international development goals. Rape and domestic violence account for 5-10% of healthy years lost by women (UNICEF, 2016).

The social and economic costs of GBV are enormous and have ripple effects throughout society (World Bank, 2014). Women may suffer isolation, inability to work, loss of wages, lack of participation in regular activities and limited ability to care for themselves and their children (World Bank, 2014). The significance of women's health and socioeconomic well-being is increasingly recognized and seen as a necessity for sustainable development, and it is now recognized that women constitute a major force for change (Saile et al., 2013). Thus violence against women also has a profound impact on development. It perpetuates poverty by reducing women's capacity to work outside the home, their mobility and access to information, and children's school attendance (Saile et al., 2013).

Gender based violence also impacts on children (Duvvury et al. 2013; UNICEF, 2014). The effects of exposure to violence for children are both immediate and long-term. Violence in the home affects a child's school attendance and performance, as well as physical health (Anand et al., 2012). Children who witness abuse are more likely to perpetuate the cycle of violence in their own homes, with boys twice as likely to later perpetrate IPV and girls more than twice as likely to later experience it (Kishor & Johnson 2004).

Women who have experienced physical, sexual, or psychological violence suffer a range of health problems, often in silence (ICRW, 2007). They have poorer physical and mental health, suffer more injuries, and use more medical resources than non-abused women. Many grow up witnessing their father beating their mother, many have themselves been the victims of parental violence – key determinants of perpetration of and submission to violence in intimate relationships in adulthood (Biddlecom et al., 2007; Santhya, et al.2011).

Gender-based violence can indirectly create girls vulnerability to poverty (ICRW, 2015). This is because violence reduces women's autonomy in decision-making on a range of issues and fear often prevents women from taking action. Gender based violence is a threat to women's well-being and productivity and affects the welfare of children in society at large. Gender-based violence saps women's energy, undermining their confidence, and compromise their health (UNFPA, 2013).

Gender based power inequalities also restrict open communication between partners about reproductive health decisions as well as women's access to reproductive health services (Acharya, 2010). Domestic violence restricts a woman's ability to achieve her reproductive intentions by inhibiting her adoption of contraception and further increasing unwanted pregnancy (Stephenson et al., 2008).

2.6.9 Unintended Pregnancy

Unintended pregnancies refer to pregnancies that are not wanted or those that are mistimed at the time of conception. The World Health Organisation (2011) estimates that about 210 million pregnancies occur each year, one-third of which are unintended. Most of them end in still births, miscarriages, and induced abortions (WHO, 2011). Most youth experience early sexual debut which is usually unplanned and involuntary and consequently become victims to other negative sexual and reproductive health outcomes such as unwanted pregnancy, HIV and STI infection, and unsafe abortion (Gupta et al., 2003; Buseh, 2004).

About 213 million pregnancies occurred in 2012, up slightly from 211 million in 2008 (Sedgh, 2014). Eighty-five million pregnancies, representing 40 percent of all pregnancies, were unintended in 2012 (Sedgh, 2014). Of these, 50% ended in abortion, 13% ended in miscarriage, and 38% resulted in an unplanned birth (Sedgh, 2014). According to Adhikari et al. (2009) unintended pregnancy is not a problem of only low or middle income countries. Every second pregnancy in the US, Japan and every third pregnancy in the UK and France are reportedly unintended (Adhikari et al., 2009; Gupta et al., 2010). In Jordan, Ecuador, Ethiopia and Nepal, the prevalence of unintended pregnancy was almost 40% (Bastola et al., 2015; Adhikari et al., 2009). One in every three women in Bangladesh had an unintended pregnancy, but only one fifth of all pregnancies were reported to be unintended in Indonesia and in India (Bastola et al., 2015; Adhikari et al., 2009).

In a multi-country study including ten countries mainly from Africa, Asia and South-America, the lowest prevalence of unintended pregnancy was in Samoa (13%) followed by Japan (20%) whereas in Thailand, Tanzania and Bangladesh, it was almost 35% (Bastola et al., 2015. Peru, Brazil and Namibia had the highest prevalence of 63%, 55% and 50% respectively (Bastola et al., 2015; Adhikari et al., 2009).

2.6.10 Causes of unintended pregnancy

In many countries, women have more pregnancies and children than they want and become pregnant much sooner than desired. The amount of time a woman typically spends avoiding unwanted or mistimed pregnancies has increased in recent decades, because urbanisation and social and economic development have led many couples to want fewer children.

According to the WHO (2012), vaginal sexual activity without the use of contraception through choice or coercion is the predominant cause of unintended pregnancy. The incorrect use of a contraceptive method and failure of the method chose also contribute to unintended pregnancy. Young women are at particular risk of unwanted sex, or sex in unwanted conditions, particularly when there are large age differences between them and their partners (WHO, 2012). Between 7% and 48% of adolescent girls report that their first sexual experience was forced (WHO, 2012). Women who are coerced into sex or who face abuse from partners are less likely to be in a position to use contraception, and are therefore more exposed to unintended pregnancy than others (WHO,2012).

A number of studies show that not only does cultural and spiritual value of sons play a crucial part in unintended pregnancy but economic reasons also contribute to a trend toward increasingly masculine sex ratios at birth throughout societies in Asia (Bélanger et al.,2003/2; Miller, 2001; Patel, 2007). Sons are valued over daughters because they are seen as a source of labour. In India, for example, sons are raised and educated to be earning members who can be responsible for looking after parents (Patel, 2007). The birth of a son is regarded as an opportunity for upward mobility while the birth of a daughter is perceived to result in downward economic mobility of the household and the family (Patel, 2007). The ability to produce a male heir, in many Asian societies, gives women a rite of passage; in other words, a son's birth is "a means of privileging the mother" (Patel,

2007, p. 149). The majority of Indian women would be devastated to only have successive daughters (Patel, 2007). Despite the information surrounding the science of reproduction, the woman is still blamed for her inability to provide a son to the family (Lien, 2012)

Inadequate knowledge about contraceptive methods resulting in non-use and unwanted pregnancies is also reflected in a number of studies in other parts of the world. A qualitative investigation in 2006 about knowledge of contraceptives and sexually transmitted diseases (STDs) among young people in Ho Chi Minh city, Vietnam, demonstrated that even though family planning in Vietnam has been in place since the early 1960s, not all contraceptive methods are equally available to women, especially those residing in rural areas (Nguyen, et al., 2006). Another study of seven hundred women aged 15-49 in seven provinces in Vietnam suggests that even if the participants knew about the contraceptive methods, they did not know where to get them (Nguyen & Vu, 2001).

Studies on women seeking abortion in three provincial capitals in Pakistan revealed that 74.4% of the women had not used a contraceptive because of either lack of information about contraception (28.8%) or incomplete/ misguided information (45.6%) (Lien,2012; Rehan, Inayatullah, & Chaudhary, 2001). In yet another study on the incidence of induced abortion in the Philippines, data showed that the country's decentralisation of health service provider contributes to Filipino women's difficulties in obtaining contraceptive information, services and supplies, thus preventing them from practicing contraception (Juarez et al., 2005).

On access to contraceptives and education, Awoonor-Williams et al. (2010) observed that in rural areas of Ghana, sexual and reproductive health services are most often provided by community health nurses. However, the inefficient deployment of community health nurses failed to increase the coverage of sexual and reproductive health services because

resources for posting them to communities were constrained (Awoonor-Williams et., 2010). Awoonor-Williams et al., (2010) further argued that in most underserved rural areas of Ghana, sub-district clinics were not only geographically remote from most households, but clinical services were culturally inappropriate. Since culture plays an important role in peoples' decisions about sexual and reproductive health, services that do not conform to cultural practices may not be utilised even if they are accessible and free. This situation is likely to be prevalent in most rural areas of Ghana, where traditional practices are regarded as sacred, and could be one of the reasons accounting for the differences between SRH service utilization among urban and rural populations.

In many countries, women's attitude toward the use of contraception in the decision-making process and their motivation for nonuse are heavily influenced by a complex combination of the cultural and religious environment in which they live. The influence of culture on the sexual and reproductive health practices of most Ghanaians, especially those residing in rural areas, has been highlighted in literature (Mazenga et al. 2009). Some scholars (see Adongo et al., 1997; Adongo et al, 1998; Mayhew & Adjei, 2004; Parr, 2002) have argued that reasons for the continuing lack of uptake of family planning services are not well understood though could include socio-cultural factors, poor access for adolescents and unmarried women, and continuing quality of care issues.

Najafi-Sharjabad et al. (2018) and Nguyen et al. (2007) both explained that inadequate RH education can lead to unintended pregnancy. An estimated 26.5 million unintended pregnancies occur each year because of inappropriate use or method failure (WHO, 2015). In addition, dissatisfaction with methods can lead to discontinuation, which is often associated with lack of choice, incorrect use or fear of side effects, all symptoms of poor quality family planning counselling and services.

Miller (1986) examines women's experiences of coercion, rape, or even forced pregnancy, which sometimes happens in the context of domestic violence. Unintended pregnancies are more likely to be associated with abuse than intended pregnancies. This may also include birth control sabotage, which is the manipulation of someone's use of birth control to undermine efforts to prevent pregnancy.

2.6.11 Effects of unintended pregnancy

There are 1.8 billion adolescents in the world today, the largest generation in history (UNFPA.2014). Globally, this population is highly vulnerable to negative sexual and reproductive health outcomes such as sexually transmitted infections (STIs) including HIV, unintended pregnancy, and the complications that come with early childbirth (Singh et al., 2014). This burden falls disproportionately on adolescent girls (UNAIDS, 2010). In 2013, two-thirds of all new HIV infections among adolescents between the ages of 15–19 occurred in girls (UNAIDS, 2015). The disparities are even starker in sub-Saharan Africa, where in some countries, girls aged 15–19 are five times more likely to be infected with HIV than boys their age (UNAIDS,2015). Furthermore, the consequences of unintended pregnancy and the risks associated with childbirth fall almost entirely on women and girls (UNFPA, 2013). Complications from pregnancy and childbirth including maternal hemorrhage and sepsis, and unsafe abortion are among the leading causes of death among adolescent girls and young women aged 10–24 in low- and middle-income countries (Patton et al., 2009). Due to their underdeveloped reproductive systems, pregnant adolescents have increased risk from life-threatening complications including obstructed labor and resultant obstetric fistulae (Blum, 2007). They also have a greater risk of eclampsia and pre-eclampsia (Bearinger et al., 2007; Blum, 2007). Adolescent girls aged 15–19 years are twice as likely as women in their 20s to die during childbirth; girls under the age of 15 have a five times greater maternal mortality risk (UNICEF, 2002). In

addition, pregnancy in adolescence is associated with increased risk of HIV infection (Clark, 2004).

Although causal relationships are difficult to establish, numerous studies have indicated that unintended pregnancies are associated with an array of negative health, economic, social, and psychological outcomes for women and children (Brown and Eisenberg 1995; Marston and Cleland 2003; Hardee et al. 2004; Logan et al. 2007; Gipson, Koenig, and Hindin 2008; Tsui, McDonald-Mosley, & Burke, 2010).

Unplanned pregnancy is one of the leading causes of maternal mortality and morbidity in the world (Lien, 2012). It is estimated that up to 100,000 maternal deaths could be avoided each year if women who did not want children used effective contraception (Lien, 2012). When maternal illnesses are also taken into account, preventing unwanted pregnancies could avert, each year, the loss of 4.5 million disability-adjusted life years (Lien, 2012).

Various studies have revealed that unintended pregnancy is linked with increase in morbidity and mortality in women and also with neglect in the care of children (Bastola et al., 2015). In the USA, women with unintended pregnancy were less likely to initiate and continue breastfeeding to their baby than women with intended pregnancy (Bastola et al., 2015). Unintended pregnancies that lead to induced abortions can have deleterious consequences for women living in countries where abortions are generally unsafe. Thousands of women die each year as a result of unsafe abortions (WHO 2011), and millions more suffer nonfatal health consequences (Singh 2006).

An earlier study from Nepal found that mothers with unintended pregnancy were more likely to receive inadequate prenatal care and to prefer home births (Bastola et al., 2015). Children from unintended pregnancies were more likely to receive inadequate childhood vaccination (Bastola et al., 2015), and were more likely than infants from planned

pregnancies to have low birth weight (Bastola et al., 2015). In line with Bastola et al. (2015), Schwandt et al. (2013) also argue that young women, especially adolescents may suffer adverse pregnancy outcomes such as haemorrhage and ectopic pregnancies due to the fact that they may not access prenatal facilities (Grant et al., 2008; Fraser et al., 1995), and because they may feel shy to visit prenatal clinics due to the fact that they may not be in a marital union. Young women may resort to unsafe abortions, which may put them at risk of maternal death, when their male partners refuse responsibility for the pregnancy (Schwandt et al., 2013). In situations of unplanned pregnancy, most adolescent girls resort to termination of pregnancy by methods which put their lives at risk (UN, 2011). In some cases these adolescents lose their lives and where they are fortunate enough to survive, it leaves serious repercussions on their reproductive health (UN, 2011).

2.7 Relationship between negative early RH decisions and reproductive health outcomes

In this section of literature review, the relationship between negative early RH decisions and RH outcomes in adult life is examined. The review asks: to what extent are negative early RH decisions such as early sex, early marriage and consent to marriage partner associated with selected reproductive health outcomes, namely fertility, unplanned pregnancy, spousal contraceptive communication and GBV?

2.7.1 Relationship between early sex and reproductive health Outcomes

A growing body of research has reported significant associations between RH decisions of early sex, early marriage and choice of marriage partner, and a range of negative reproductive health outcomes as well as psychological and emotional health outcomes (Pokharel et al., 2006; Mbugua et al., 2007; Awusabo-Asare et al., 2008). Women who initiate sexual intercourse at a young age are often vulnerable to coerced, risky and

unprotected sex (Nowicka et al., 2011; Morris et., 2015) . Unprotected sexual activity may in turn lead to unwanted pregnancy and childbearing, abortion, or infection with HIV and other STIs (Awusabo-Asare et al., 2008). Girls with early menarche who initiate sexual activity at a young age may not be developmentally prepared for sex (both mentally and physically) or knowledgeable about taking precautions to prevent pregnancy and STIs when having sex (UNICEF, 2013). High rates of unmet need for contraception in low- and middle-income countries further limit young girls' abilities to prevent early pregnancies (Bearinger et al., 2007). In addition, the underdeveloped vaginal epithelial lining in younger girls is more vulnerable to tears during sexual intercourse than that of adult women, thus increasing young girls' risks of contracting STIs including HIV (Blum 2016; UNFPA, 2016).

Due to gender inequalities, girls are often unable to insist that their sexual partners take the necessary precautions to prevent pregnancy and STIs during sex (Avusabo-Asare et al., 2008; Adomako Ampofo, 2001). They are frequently unable to decide when to have sex for the first time. For example, in some parts of sub-Saharan Africa, 45% of girls report that their first sexual intercourse was forced (UNICEF, 2013; UNFPA, 2016)

Menarche, the onset of menstruation, is an often overlooked indicator in public health (Sommer et al., 2013), yet, it is a key developmental marker of a girl's healthy transition from childhood into young adulthood, and an important clinical indicator of girls' physical, nutritional, and reproductive health (Sommer et al., 2013). Menarche marks the beginning of a girl's reproductive life, and has important implications for adolescent sexual and reproductive health outcomes (Sommer et al., 2013). A substantial body of evidence from high-income countries suggests that early menarche–generally defined as menarche before age 12–increases adolescent girls' vulnerability to negative sexual and

reproductive health outcomes including early pregnancy and childbearing, STIs, early sexual initiation, and sexual violence (Copeland et al.,2010; Deppen et al., 2012).

Although it is likely that the links between early menarche and sexual reproductive health in low- and middle-income countries are similar to those found in high-income countries, this might not necessarily be the case due to differences in sociocultural factors related to menarche and sexual and reproductive health. For example, in many low- and middle-income countries, menarche has traditionally served as a cultural rite of passage and marker of adulthood, positioning a girl as ready for marriage; this is not the case in most high-income countries (Sommer et al., 2013). Thus, early menarche is more likely to be associated with early marriage in low- and middle-income countries. Furthermore, in many low- and middle-income countries, girls' mobility and social interactions are often restricted once they reach puberty, limiting their opportunities to engage in pre-marital sexual activity (UNFPA, 2016). Such restrictions could minimize the correlation between early menarche and early sexual initiation or risky sexual behavior in low- and middle-income countries. Furthermore, differences in contraception access and use between low, middle and high-income countries may contribute to differences in the effect of early menarche on early pregnancy and childbirth across the different settings (UNFPA, 2013). Early menarche is likely to have a stronger correlation with adolescent pregnancy and childbirth rates for girls in low-income settings, where access to contraceptives is more limited. In addition, the factors that contribute to early menarche, which could in turn affect related sexual and reproductive health outcomes, may differ. For example, recent declines in the age at menarche in low- and middle-income countries have been attributed to improved socioeconomic, health and nutritional status (Richmond et al., 2011). On the other hand, in high-income countries, earlier age at menarche has been attributed to

markers of lower socioeconomic conditions such as family instability, residential instability, and stressful early life conditions (Arim et al., 2011).

The earlier a woman initiates sexual activity the longer she stays in the reproductive years, hence increasing her parity (GDHS, 2014; Awusabo-Asare et al., 2006; Blanc. 2001). Early sexual initiation has been associated with increased sexual risk behaviors including unprotected intercourse, multiple sexual partners, and unintended pregnancy among young people (Nield et. al, 2014). For most first timers, no contraception was used (Akintola et. al., 2012). Discussing early marriage on fertility, the ICRW research in 2013 early marriage is associated with early childbearing, short birth spacing, and higher number of children.

Studies have also shown that unplanned, mistimed and unwanted pregnancies are common among young women who initiate sexual activity earlier (Bongaarts, 2011; Auvert et al,2001; Assampong et.al, 2013; UNICEF,2012; GSS,2013; Collins et .al, 2004). Also a study reported that compared with young women who had married at age 18 or older; those who had married early were less likely to have been consulted on the timing of marriage and choice of spouse, as well as to have had an opportunity to get to know their spouse before marriage (UNICEF, 2014. Some studies established that women's socio-economic status, women's disempowerment such as reduced opportunities for decision-making and participation, lack of spousal communication, inequitable gender attitudes, are exacerbated due to early sexual debut (Gage, 1997; Mason 1987; Dyson & Moore, 1983; UNICEF, 2014).

2.7.2 Relationship between early marriage and reproductive health outcomes

Santhya et al. (2013) in India revealed that young women who had married at age 18 or older were more likely than those who had married before age 18 to have been involved in planning their marriage (odds ratio, 1.4), to reject wife beating (OR 1.2), to have used

contraceptives to delay their first pregnancy (OR 1.4) and to have had their first birth in a health facility (OR 1.4). They were less likely than women who had married early to have experienced physical violence (OR 0.6) or sexual violence (OR 0.7) in their marriage or to have had a miscarriage or stillbirth (OR 0.6).

On spousal communication, Santhya et al. (2013) revealed that age at marriage was associated with most measures of the marital relationship. For example, young women who had married early were less likely than those who had married late to report regularly discussing with their husband both issues related to their in-laws and those related to spending money. Young women who had married before age 18 were considerably less likely than those who had married later to report having interactions with their husband on when or whether to have children, how many children to have and contraceptive use

Some studies also show that those who enter non-consensual marriages are less satisfied with marital relationships, face more restrictions from their husbands, and have less decision-making power (Adinkrah, 2011; Boakye, 2009; Biney, 2010).

Santhya et al. (2010) revealed that age at marriage is associated with poor spousal communication Women who had married early were less likely than those who had married late to report regularly discussing with their husband both issues related to their in-laws and those related to spending money (Santhya et al., 2010).

Early marriage itself can be considered a form of violence against girls (Amin, 2014; Solotaroff et al., 2014). Studies in diverse settings have found that females who marry at young ages may be less capable than those who marry later of asserting themselves in their marriage, which may place them at higher risk of experiencing physical and sexual violence (Santhya et al., 2010). Studies in diverse settings have found that females who marry at young ages may be less capable than those who marry later of asserting

themselves in their marriage, which may place them at higher risk of experiencing physical and sexual violence (Adanu et al, 2012; Awusabo-Asare et al., 2007; Monahan, 2007; Kishor et al., 2006; Hussain et al., 2008; Moore, 2012). Available evidence shows that girls who marry before the age of 18 are more likely to experience violence within marriage than girls who marry later. Idoko et al. (2015) study on the burden of GBV in the Gambia also argues that women who marry early are more prone to GBV (Maharaj et al., 2007; Malhotra et al., 2011; Nguyen et al., 2012). A study conducted by the International Center for Research on Women (2010) in two states in India and Petiffor et al. (2004) study in Zimbabwe all found that girls who married before 18 were twice as likely to report being beaten, slapped, or threatened by their husbands than girls who married later (Petiffor et al., 2004; ICRW, 2010). Girls who married young and are subject to GBV experience higher rates of unintended pregnancy, induced abortion, pregnancy complications, low birth weight of children, and sexually transmitted infections, including HIV. Gender based violence also negatively affects girls' mental health, leading to depression, anxiety, and post-traumatic stress disorder (Carbone-Lopez, Kruttschnitt & Macmillan 2006). Girls who experience GBV are at higher risk than girls who do not experience GBV for a number of poor physical health outcomes including severe injury, chronic pain, and gastrointestinal, sexual, and reproductive health issues (Campbell 2002; Lamb & Peterson, 2012; WHO,2012).

In all settings in various countries, women who had experienced intimate partner violence were more than two times likely to be at risk of HIV/STI infection compared to those with no history of intimate partner violence (Devries K et al., 2010).

Santhya et al., (2010) study on early marriage revealed that young women who had married at age 18 or older were more likely than those who had married before age 18 to have been involved in planning their marriage, to reject wife beating, to have used

contraceptives to delay their first pregnancy and to have had their first birth in a health facility (Santhya et al., 2010). They were also less likely than women who had married early to have experienced physical violence or sexual violence in their marriage or to have had a miscarriage or stillbirth (World Health, 2011;Santhya, 2010 ;Adanu et al 2012; Moyer et al., 2014; Ganle, Obeng, et al., 2015).

The relationship between education and early marriage has been established in literature (WHO, 2012; UNFPA, 2013, UNICEF, 2012; Klasen et al, 2012; Cameron et al, 2001; Mammen et al, 2000). Girls who marry young are more likely to be poor and remain poor (UNICEF, 2014). Girls who marry young do not receive the educational and economic opportunities that help lift them out of poverty and which are necessary to build a sustainable and prosperous future for their communities (UNICEF, 2014). Early marriage limits young women's access to education, which in turn affects employment opportunities and the nature and terms of their employment. Low education is a barrier to entry into formal, paid employment (Klasen et al. 2012; Grown et al. 2005). Secondary and post-secondary education are strongly associated with labour force participation (Cameron, et al 2001; Mammen et al., 2000), but most girls who marry early do not reach that level. (UNFPA,2013; UNICEF,2012; Klasen et al, 2012; Cameron et al, 2001; Mammen et al, 2000).

Furthermore, by virtue of their low levels of education, they are often not seen by their husbands and in-laws as capable of earning or managing finances or making financial decisions for the household (Becker Fonseca-Becker et al, 2006; Jain & Kurz, 2007; The World Bank 2012). Similarly , victims of early marriage often lack the ability to negotiate sexual activity, contraceptive use, or birth spacing with their husbands (Raj 2010; UNFPA 2013) and in many cases are unable to speak up against the physical or emotional violence

they experience at the hands of their husbands or in-laws within their own homes (Raj 2010; UNFPA 2013).

Considerable evidence has linked early marriage to poverty (Jain et al 2007; Johnson et al, 2011; Walker 2013; ICRW, 2014). Poverty affects child marriage both as a cumulative condition and a 'shock' or sudden economic hardship. Across the region, the poorest women tend to be the youngest to marry (Jain et al 2007; Okonofua, 2013; Walker 2013). The aggregate effect of poverty and sudden economic hardship can compel families to marry daughters early: the marriage provides the natal family with an injection of resources (money or goods) that they may be able to determine and the marriage relieves the family of the economic burden of a child. In some communities, married girls may be expected to provide resources back to her natal family, providing reciprocal assistance. Marriage is also perceived as a route for the girl out of poverty. This has been stressed with regard to transnational early marriages (ACP 2012).

Women who enter a union at a young age are likely to have husbands who are much older than they are—up to 15 years older in some countries—which lessens the chances that the young women will be able to participate in decisions about childbearing or be able to negotiate the use of birth control (WHO/ UNAIDS / WHO 2002). Young married girls often have little power in relation to their husbands or in-laws (Manzini et al 2001; Grupta et al., 2003). They are also extremely vulnerable to violence, abuse, divorce, and abandonment (Alhassan, 2013; Atsem, 2014). They curtail their educational opportunities and tend to have low levels of educational attainment (Alhassan, 2013; Atsem, 2014).

2.7.3 Relationship between consent to marriage partner and reproductive health Outcomes

Dolphyne (1991:15) has rightly observed that marriage arrangements or child betrothal and subsequent early marriage may have worked well in the past. In modern times,

however, things have changed, and continue to change so that a girl can reject non-consensual marriage. This may create problems if she cannot be persuaded to marry the chosen partner or suitor. The bride wealth that may have been already transferred to the girl's father has to be refunded which sometimes may not be possible as the parents, depending on their economic status, may have already used it. This may be followed by coercion or tricking the girl and sometimes outright force. At times the girls may try and succeed in running away and may be lucky to find rescue from outsiders since such girls do not expect any sympathy from their families as they are supposed to have let them down. The experiences the young brides and would-be brides who may be as young as 12 years go through can be quite traumatic. Due to the young girls' age and given the fact that their bodies are not yet fully developed to cope with child bearing, young brides sometimes suffer permanent damage to their health in the process of child bearing (Gikenye, 2001:12).

Women in non-consensual marriages suffer emotional pressure from their families, and husbands or in-laws can limit their ability to make decisions about their own lives and bodies. Forced sexual initiation and early pregnancy often have lasting effects on girls' mental health (UNIFEM, 2017).

As compared to consensual marriages, isolation is one of the biggest problems for women in non-consensual marriages. Often, there'll be no-one they can trust or talk to. Some people are forced to travel overseas, find it impossible to communicate with anyone and have no access to their passport or money (UNIFEM,2017).Also women in non-consensual marriages can also be forced to live as domestic slaves – kept under virtual house arrest, suffering abuse not only from their spouse but from extended family too. Women in forced marriages also frequently suffer violence, rape, forced pregnancy and childbearing. Children conceived in non-consensual marriage environment can be

seriously affected by it – either by learning that violence is acceptable, or being traumatized by witnessing it.

Women in non-consensual marriages have limited opportunities for further personal and educational development and end up with little or no career choices

2.8 Conceptual Theory

A life-course approach examines how biological (including genetics), social and behavioural factors throughout life and across generations act independently, cumulatively and interactively to influence health outcomes (Kuh et al., 1997). Although there are numerous perspectives on human growth and development, the life course theory is appropriate for this discussion because sexual and reproductive health issues influence the development of both sexes from infancy to old age. The life-course perspective was first developed in the 1960s to examine structural or contextual factors affecting individual life histories (Elder & Shanahan, 2007). Elder is credited with the theory with his study of the children of the Great Depression (Elder 1974). It was an early example of an integrated view on social context, individual life course and developmental lifespan, which has rarely been emulated since. Over the years, sociologists and demographers have applied this perspective to important life events, including marriage, divorce, morbidity and mortality (George, 1993; Uhlenberg, 1996). More recently, family scholars have used it to probe the complexities of family and domestic violence. Several important concepts underpin the life-course theory, making it very useful to explain the early RH health decisions of women and future RH outcomes

The proponents of the life-course theory (e.g., Balteset al., 1998; Berk, 2007) assert that each period of life has its own developmental challenges and accomplishments, and adaptive processes are at work at each of the periods of the life span. No age or stage of

development is supreme; rather, events occurring at each stage can have profound effects on future development (Berk, 2007). For instance, in many cultures, discrimination against females that begins in infancy and male attitudes towards gender and sexual relations, which start in boyhood, can determine the course, as well as influence sexual and reproductive health (UNFPA, 2008) of individuals in later years of life.

A life-course approach examines the entire progress of an individual throughout life to explain outcomes (Tenkorang et al., 2018). The outcomes depend on the interaction and exposure to risk factors throughout people's lives (Tenkorang et al., 2018). The life-course theory provides an in-depth understanding of the relationship between early RH decisions (early sex, early marriage and consent of marriage partner) and associated outcomes (spousal communication, fertility, GBV and unintended pregnancy).

The life-course theory also emphasizes that every stage of development has its own agenda, demands and opportunities that yield some similarities in development among individuals in that stage (Berk, 2007). Baltes and colleagues (1998) thus argue that the theory is concerned with comparing an individual's development with that of others and with the individual's own status at various points in time. Human development scholars, such as Berk (2007) and Staudinger and Lindenberger (2003) contend that the life-course paradigm is built on four important assumptions, which suggest that human development is (a) lifelong, (b) multidimensional or multidirectional, (c) highly plastic, and (d) affected by multiple interacting forces. Human development is life-long because development does not cease when adulthood is reached, but rather it continues till death. Multidimensionality or multidirectional implies that human development is affected by a complex combination of biological, psychological and social forces. The plasticity of human development signifies how change is possible at all stages as humans grow and mature. However, development gradually becomes less plastic, as capacities and opportunities for change are

limited. Human development is influenced by multiple interacting forces because pathways of change are varied and the developmental domains are not separate but overlapping. Nevertheless, individual agency influences the interacting forces across the life course because the active and goal-oriented role of individuals in their own development is fundamental. Thus, individuals have to adjust to, cope with, as well as take advantage of the changing opportunities and constraints that characterize each stage of development (heckhausen et al 2010).

Based on the literature reviewed, this study adopts the life course theory, which best explains the retrospective nature of the study. The life-course theory provides an in-depth understanding of the relationship between early RH decisions and associated outcomes and practices. Life course theory, more commonly termed the life course perspective, refers to a multidisciplinary paradigm for the study of people's lives, structural contexts, and social change (Mitchell, 2003; Hutchison, 2007). This approach encompasses ideas and observations from an array of disciplines, notably history, sociology, demography, developmental psychology, biology, and economics. In particular, it directs attention to the powerful connection between individual lives and the historical and socioeconomic context in which these lives unfold (Mitchell, 2003). Life course is defined as a sequence of socially defined events and roles that the individual enacts over time (Mitchell, 2003; Hutchison, 2007). These events and roles do not necessarily proceed in a given sequence, but rather constitute the sum total of the person's actual experience. Thus the concept of life course implies age-differentiated social phenomena distinct from uniform life-cycle stages in the life span (Mitchell, 2003). Life span refers to duration of life and characteristics that are closely related to age but vary a little across time and place (Hutchison, 2007). In contrast, the life course perspective elaborates the importance of time, context, process, and meaning on human development and family life (Bengtson and

Allen, 1993). Aging and developmental change, therefore, are continuous processes that are experienced throughout life (WHO, 2014; Mitchell, 2003). As such, the life course reflects the intersection of social and historical factors with personal biography and development within which the study of family life and social change can ensue (Elder 1985; Hareven, 1996).

A life-course approach considers an individual's entire progress throughout life to explain why certain outcomes result. The outcomes depend on the interaction of multiple protective and risk factors throughout people's lives. A life-course approach examines how biological (including genetics), social and behavioral factors throughout life and across generations act independently, cumulatively and interactively to influence health outcomes (WHO, 2015; Hoskins et al, 2015).

Several fundamental principles characterize the life course approach. They include: (1) socio-historical and geographical location; (2) timing of lives; (3) heterogeneity or variability; (4) "linked lives" and social ties to others; (5) human agency and personal control; and (6) how the past shapes the future. Each of these tenets will be described and key concepts will be highlighted. This will be followed by an overview of selected examples of empirical applications from an international and cross-cultural perspective (Hoskins and Varney, 2015).

Socio-historical and geographical location: An individual's own developmental path is embedded in and transformed by conditions and events occurring during the historical period and geographical location in which the person lives. For example, geopolitical events (e.g., war), economic cycles (e.g., recessions), and social and cultural ideologies (e.g., patriarchy) can shape people's perceptions and choices and alter the course of human development. Thus, behavior and decisions do not occur in a vacuum, because people and families interact within sociohistorical time. (Hoskins and Varney, 2015).

Indeed, an understanding of the location of various cohorts in their respective historical contexts aids scholars and policy makers to identify circumstances that have differentially affected people's respective life histories (Hoskins and Varney, 2015).

Timing of lives: Three types of time are central to a life-course perspective: individual time, generational time, and historical time (Priceet al., 2000). Individual or ontogenetic time refers to chronological age. It is assumed that periods of life, such as childhood, adolescence, and old age, influence positions, roles, and rights in society, and that these may be based on culturally shared age definitions (Hagestad and Neugarten, 1985). Generational time refers to the age groups or cohorts in which people are grouped, based upon their age. People born between 1946 and 1964, for example, are often referred to as the baby boom generation (Elder, 1985). Finally, historical time refers to societal or large-scale changes or events and how these affect individuals and families, such as political and economic changes, war and technological innovations (e.g., information access through the Internet) (Elder, 1985).

Furthermore, Elder (1985) observes that time can also be envisioned as a sequence of transitions that are enacted over time. A transition is a discrete life change or event within a trajectory (e.g., from being single to married state), whereas a trajectory is a sequence of linked states within a conceptually defined range of behaviour or experience (e.g., education and occupational career). Transitions are often accompanied by socially shared ceremonies and rituals, such as a graduation or wedding ceremony, whereas a trajectory is a long-term pathway, with age-graded patterns of development in major social institutions such as education or family. In this way, the life course perspective emphasizes the ways in which transitions, pathways, and trajectories are socially organized. Moreover, transitions typically result in a change in status, social identity, and role involvement.

Trajectories, however, are long-term patterns of stability and change and can include multiple transitions (Elder, 1985).

Progress along trajectories is age-graded such that some transitions can be viewed as more age appropriate while others violate normative social timetables by occurring too early or too late (Hagestad and Neugarten, 1985). An off-age transition might be leaving home at a very young age (e.g., age fifteen) or becoming a teenage parent. There is also the possibility of transition reversals or counter-transitions. An example of a transition reversal is when a young adult returns after leaving home, while counter-transitions can be produced by the life changes of other roles and statuses (e.g., parenthood creates grandparenthood). The timing of transitions also can decrease the chance of success in a particular trajectory, such as the likelihood of completing school (Elder, 1985).

Heterogeneity or variability: Heterogeneity or diversity in structures or processes is another life course principle. One must consider not only modal or average developmental and transitional trends, but also variability. Matilda Riley's (1987) research supported a model of age stratification - the different experiences of different cohorts - and so helped to overcome the fallacy of cohort centrism, the notion that cohorts share perspectives simply because they share a common age group. Indeed, generations or cohorts are not homogeneous collections of people. Rather, they differ in terms of influential dimensions such as gender, social class, family structure, ethnicity, and religion. Moreover, the ability to adapt to life course change can vary with the resources or supports inherent in these elements in the form of economic or cultural capital (e.g., wealth, education) or social capital (Elder ,1985). (e.g., family social support). For example, Mitchell's (2000) research demonstrates that young adults with weak family ties may not have the option to return home during difficult economic times. Finally, there is also the recognition of

increasing diversity associated with aging. The longer one lives, the greater the exposure to factors that affect the aging process.

Linked lives and social ties: A fourth tenet emphasizes that lives are interdependent and reciprocally connected on several levels. Societal and individual experiences are linked through the family and its network of shared relationships (Elder 1998). As a result, macro-level events, such as war, could affect individual behaviours (e.g., enrolling in military service), and this can significantly affect other familial relationships. Stressful events, such as the death of a family member, can also affect family relationships because these occurrences can trigger patterns of stress and vulnerability or, conversely, promote adaptive behaviors and family resilience (Elder ,1985).. Moreover, personality attributes of individual family members can also affect family coping styles, functioning, and well-being.

Human agency and personal control: According to the life course perspective, individuals are active agents who not only mediate the effect of social structure but also make decisions and set goals that shape social structure. Individuals are assumed to have the capacity to engage in panful competence, which refers to the thoughtful, proactive, and self-controlled processes that underlie one's choices about institutional involvements and social relationships (Clausen 1991). However, it should be recognized that the ability to make specific choices depends on opportunities and constraints. Parallel to this idea is the concept of control cycles, whereby families and individuals modify their expectations and behaviour in response to changes in either needs or resources (Elder, 1985). Elder (1974) found that families in the Great Depression regained a measure of control over their economic hardship through expenditure reductions and multiple family earners. In this way, families and individuals can construct, negotiate, and traverse life course events and experiences.

2.8.1 Life course perspective on RH decisions and outcomes

The study adopts the life course theory to enable it examine the life journey of women. Early life course decisions, opportunities, and conditions affect later outcomes. The past, therefore, has the potential to shape the present and the future, which can be envisioned as a ripple or domino effect. This can occur at various levels: the cohort/generational level and the individual/familial level. The timing and conditions under which earlier life events and behaviours occur (e.g., dropping out of school, witnessing domestic abuse) can also set up a chain reaction of experiences for individuals and their families (e.g., reproduction of poverty, a cycle of family violence). All life choices are contingent on the opportunities and constraints of social structure and culture (Hoskins and Varney, 2015).

The life course theory is a useful theory to understand the relationship between early reproductive health decisions of early sex, marriage and sexual debut and the implications for early childbirth, unwanted childbearing, spousal Communication, and gender based violence (GBV). The life course perspective provided a better understanding of women's reproductive health decisions and associated outcomes. The theory would help to examine the context in which women's reproductive health decisions are made, as well as taking into account other possibilities that influence such decisions and future outcomes. The life course approach would also enable an in-depth data gathering for the study to provide evidence into women's early RH decisions of early marriage, early sex and choice of partner and how it potentially affects women RH adult life.

2.8.2 Strengths and Weaknesses of the life course theory

As a framework for thinking about human behavior, I think that the life course perspective has several advantages over other theories of human development. These advantages include the greater attention to the impact of historical and social change on human

behavior, the emphasis on linked lives, and the acknowledgement of people's strength and their capacity for change.

The attention that the life course perspective places on the impact of historical and social change on human behavior is important because of our rapidly changing society. The life course perspective differs from other psychological theories in this way. An example of this is Elder's 1974 research on children and the Great Depression. He found that the life course of the group that were young children at the time of the economic downturn were more seriously affected by family hardship than the group that were in middle childhood and late adolescence at the time. Not only was that true about the generations that were affected during the Great Depression but its true today. There has been a major social shift between generations

The second strength of the life course perspective places emphasis on the interdependence of human lives and the ways in which relationships both support and control an individual's behavior. First of all, I believe that parents' and children's lives are linked. Support for this idea is seen in Elders 1974 research on children of the Great Depression as well. He found that as parents experienced greater economic pressures, they faced a greater risk of depressed feelings and marital discord. Therefore, their ability to nurture their children was compromised, and their children were more likely to exhibit emotional distress, academic trouble, and problem behavior.

All of tomorrow's productive, mature citizens are located someplace along the MCH continuum. They are at some point in their creation either being conceived or born or nurtured for the years to come. There is very little genuine perception that mature people come from small beginnings, that they've had a perilous passage every moment of the way. All the populations, everybody of every age were all at one time children. And they bring to their maturity and old age the strength and scars of an entire lifetime."

I also think that parents' lives are influenced by their children's lives. For example, parents may need to alter their work schedules or career goals to respond to the needs of a sick terminally ill child or parents may forgo early retirement to assist their young adult children with education expenses. This does not change as the child develops into an adult. The pattern of mutual support between older adults and their adult children is formed by life events and transitions across the life course. For example, the traditional pattern of intergenerational support (parents supporting children) is often disrupted if one generation migrates and another generation stays behind.

Life Course Model also posits a new scientific paradigm for the MCH field. It addresses enduring health issues with new perspectives (e.g., disparities). Requires new longitudinal and holistic approaches to MCH programs, policy and research. Provides an integrated framework for facilitating the MCH policy agenda. Links the MCH community to adult and elderly health and social service policy development

The final strength of the life course perspective is the acknowledgement of people's strength and capacity for change. I think this because in studying other traditional theories of developmental psychology, they look for universal, predictable events and pathways. The life course perspective, however, calls attention to how historical time and the person's culture affect, influence, and change individual experience at each life stage. I view many of the traditional developmental models as stage theories of development that rest on the assumption that development is a discontinuous process that involves distinct stages which are characterized by qualitative differences in behavior.

With that said, I believe that there are two major weakness in this perspective: 1) the failure to adequately link the micro world of individual and family lives to the macro world of social institutions and formal organizations and 2) studying heterogeneity or the quality of being diverse and not comparable in kind.

The first weakness or limitation of the life course perspective is the failure to adequately link the individual and family lives to social institutions and formal organizations. Although it does place emphasis on linked lives and interdependence as one of the core themes, it does not have clear evidence to prove the link to macro systems. By not being able to do this effectively I think that they have left out a component that plays a part in determining human behavior.

The other weakness in this perspective is the issue of heterogeneity. Even though heterogeneity can be seen as a very positive aspect of the life course perspective I think that it also creates one of the biggest challenges and can become a major weakness in the area of being able to search for patterns of general behavior. I see this as a problem because in countries such as the United States, where there are high levels of heterogeneity it may be hard to discern certain general behaviors. For example the individual experience leading to the decision to immigrate to the U.S., the journey itself, and the resettlement period. The individual's decision to immigrate may involve social, religious, or political persecution, war, or a dangerous political environment. If you are observing this group of immigrants, they are so different in experience that they will most likely not reveal any general pattern of behavior.

2.9 Conceptual Framework

Drawing on the literature reviewed and the gaps identified in this chapter, the conceptual framework below was developed (see Figure 2.1). The researcher sets out to find out whether negative RH decisions of early sex, early marriage and consent to marriage can produces RH outcomes of fertility, unintended pregnancy, Gender Based Violence (GBV) and spousal communication.

The conceptual framework draws a relationship between early reproductive health decisions of early sex, early marriage and consent to marriage partner and reproductive

health outcomes such as poor spousal communication, high fertility, gender based violence and unintended pregnancy. Figure 2.1 depicts SRH across the life course. Throughout their lives, individuals are sexual beings (Dako-Gyeke et al., 2013). The idea that human development is a lifelong process justifies scholars' emphasis on the interdependence of life experiences throughout the life-course (see Elder, 1995; Elder & Shanahan, 2006).

A life-course approach considers an individual's entire progress throughout life to explain why certain outcomes result. The outcomes depend on the interaction of multiple protective and risk factors throughout people's lives. While the life course theory links early RH experiences (early sex, early marriage and consent of marriage partner) as depicted in Figure 2.1 the theory also acknowledges that these events may not be linear or sequential; certain important 'turning points' or changes in the life trajectory could help break the experience of RH outcomes.

The conceptual framework acknowledges that early RH decisions are not linear or sequential; certain important 'turning points' or changes in the life trajectory could help break the experience of RH outcomes. The past environment and social conditions do not necessarily produce a direct causal relationship with the outcome variables of Fertility ,Unintended Pregnancy, Gender Based Violence (GBV) and spousal contraceptive communication but as clearly elaborated in the conceptual theory. The outcomes depend on the interaction of multiple protective and risk factors throughout people's lives. Changes in the life course trajectory can make or break the experience of RH outcomes. Intervening variables that may mediate the relationships between early RH decisions and RH outcomes are socio-demographic characteristics, socio-cultural and environmental factors.

Details of relationships between life course variables and RH outcomes are clearly illustrated in Figure 2.1.

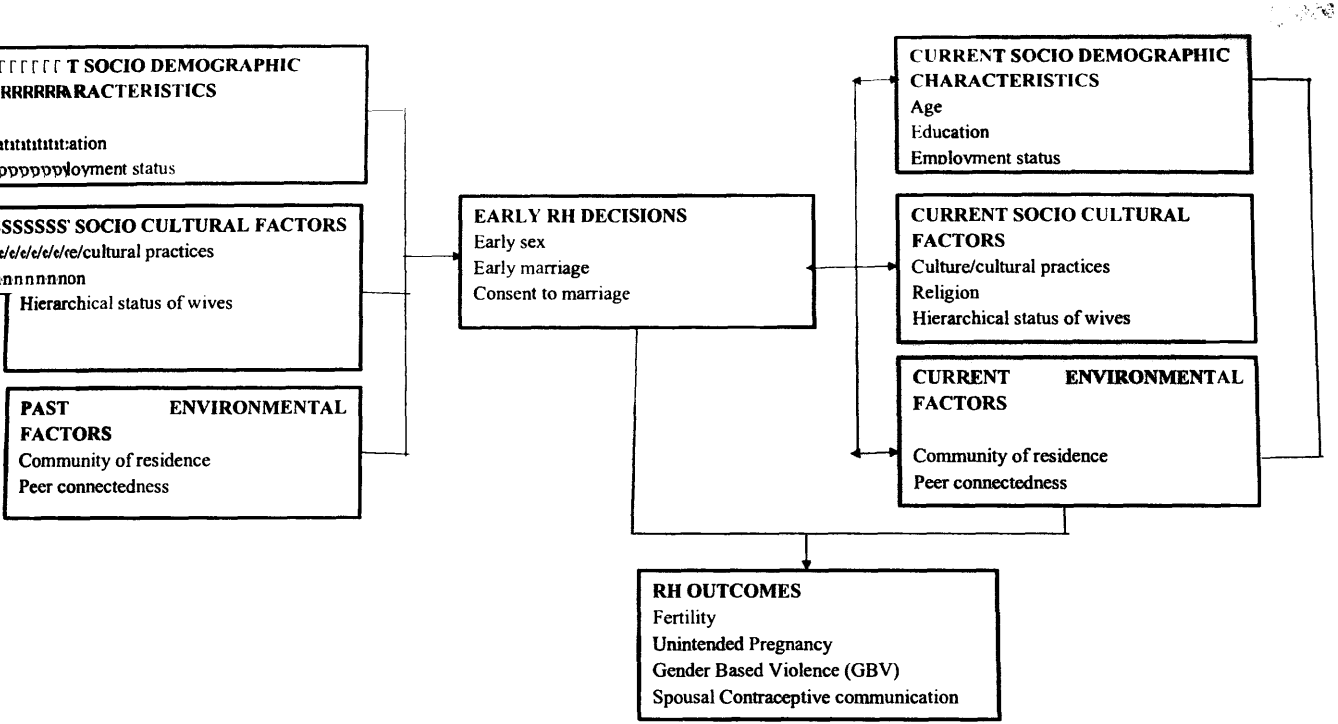

Figure 2.1: Conceptual Framework showing the relationship between negative early reproductive health decisions and reproductive health outcomes in later life (Source: Author's construct 2017, synthesized based on existing literature)

2.10 Summary and identified gaps in literature

Overall, the study extends literature on negative early reproductive health (RH) decisions of women and their associated reproductive health outcomes. Results of this study establish significant relationship between negative RH decisions and outcomes. However, a few gaps were observed in literature.

Most studies on early sex are limited to unmarried young adolescents in school. On early sex most studies emphasize on non-consensual sex yet there might be instances of voluntary early sex. More needs to be looked at on voluntary early sex. Also most discussions on outcomes related to early sex or marriage are limited to school dropout and related skills development challenges. Much therefore remains to be done to specifically understand the connections between early RH decisions such as early marriage and RH outcomes such as unplanned pregnancy, spousal communication and gender based violence.

There is virtually no literature on women who had sex before menarche, vital information to determine the prevalence of early marriage before and after menarche. Also by limiting review to articles published in English, may have missed out on equally important additional articles in other languages.

The available literature on child marriage generally does a better job at describing the problem and is weaker when it comes to sharing success stories of the many interventions that are being implemented in diverse settings. The extensive introductions are very thorough in outlining the extent of the practice, its causes, and its consequences. Solutions to the problem tend to get a much more vague treatment.

Additionally, navigating through articles both published and unpublished reports reveals how segmented the approaches towards RH decisions and outcomes. Available literature concentrates on one RH decision on one RH outcome. There is no single literature that discusses all three RH decisions of early sex, early marriage and consent to marriage partner and four outcomes of fertility, unintended pregnancy, GBV, spousal contraceptive communication.

Again, the literature suggests that most studies on RH decisions focus generally on adolescence and not young women in married settings. Unlike this study most studies are on young adolescence of both sexes within the specific age category while this study broadly discusses RH decisions of women within the reproductive age group of 15-49 years. Therefore further studies on RH decisions of non-married young women would provide an in-depth understanding of early RH decisions such as early sex, early marriage and consent to marriage partner and associated RH outcomes,

Most literature associate and limit the practice of early marriages to Africa and Asia, however early marriage is a global phenomenon. Again literature heavily links early marriage to the Islamic religion. Clearly, no single religion is associated with the practice of early/child marriage even within Africa and Asia. More research needs to be conducted in Europe and the America to establish the prevalence and implications of early marriages in these continents as well.

Available literature on early marriage concentrates on the girl child in school, therefore emphasizing effects on education, employment and related opportunities. However significant percentage of out of school or never been in school girls are equally affected by early RH decisions like early sex, early marriage. Finally, few studies have given attention to self-initiated marriages by young women. Self-initiated marriages by young girls need further investigation.

Also available literature over emphasizes men's dominant role in women's reproductive health decision-making. With more women in the labour force who are engaged in viable income generating activities, more needs to be investigated to understand RH decisions of women.

Literature abounds on RH choices; however, emphasis is placed largely on negative outcomes of RH choices and the gender dynamics of RH decisions. As a result, positive RH outcomes have been overlooked and positive sexual health is implicitly understood as a lack of negative risk factors. Although these studies provide valuable insight into the impact of early life circumstances, there is still much research to be done to understand the conditions under which early life exposures are later manifested. It is on the basis of all the foregoing gaps that this doctoral research project is aimed at examining the early RH decisions of women in the northern region of Ghana and the type of RH outcomes that are linked to these early RH decisions.

CHAPTER THREE

METHODS

3.1 Introduction

Chapter three examines the steps and procedures which were used to collect data on the early reproductive decisions and associated reproductive health outcomes. The chapter provides an overview of the study context, the methods, including choice of the study area, information on the source of data for the study, selection of study participants and data collection techniques, the methods of data analyses, operationalization, and measurement and coding of variables. It further looks at the field decisions, emphasizing the strength and weaknesses of the chosen data collection strategies. My own reflections as a field researcher are also addressed.

3.2 Study Context

The northern region occupies an area of about 70,384 square kilometers. It is the largest region in Ghana in terms of land mass (see Figure 3.1) (GSS, 2013). The northern region borders Brong Ahafo and the Volta regions to the south, Togo to the east, and Côte d"Ivoire to the west (GSS, 2013). The region has twenty (26) districts as at 2015 (GSS, 2015).

The region has a total population of 2,479,461 in 2010 with the female's population being 1,249,574 (GSS, 2010). The population of the region increased by 36.2% between 2000 and 2010 making it the fastest growing region in the country after the Central (38.1 %) and Greater Accra (38.0 %) regions (GSS,2013).

The northern region is home to a number of people, speaking and exhibiting cultural similarities (Awedoba, 2006).

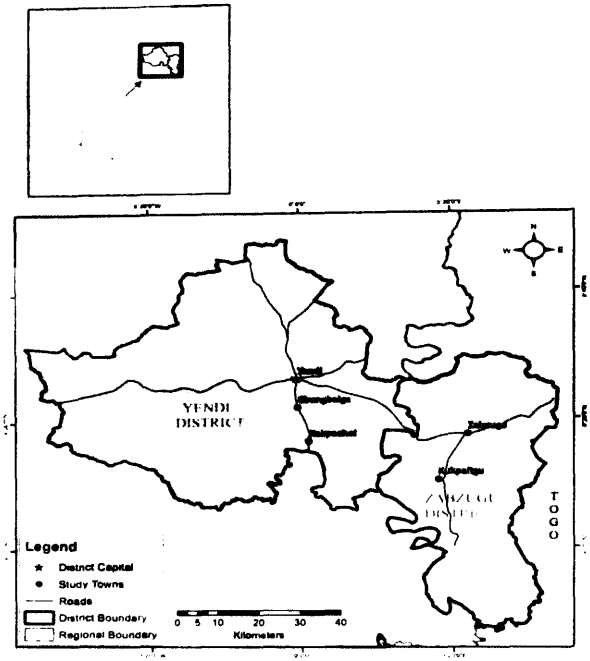

Figure 3.1: Map of Northern Region showing study districts and communities. Map source: Center for Remote Sensing and Geographic Information Services (CERSGIS), University of Ghana.

The dominant ethic groups in the region include the Dagomba, Mamprusi and Gonja who all descent from warrior immigrant groups that invaded the area and imposed their rule over the indigenous peoples (Awedoba, 2006). The Dagomba speaking ethinic group form the majority in the two study distrcits of Yendi and Zabzugu. The Dagbambas are noted for their chieftaincy traditions (Jönsson,2007; Awedoba, 2006). The culture of chieftaincy is vibrant among them and remains an emotive issue (Jönsson,2007; Awedoba,

2006). However, conflicts relating to land, ethnicity and chieftaincy are rife in the region, which often negatively affect women and children (GSS, 2013).

According to the 2014 GDHS the northern region records the lowest in education with about 66% of women and 47% men having no education (GDHS, 2014). Polygyny is also highest in the northern region affecting 42% and 27% of women and men respectively (GDHS 2014).

Empirical data collection took place in two of districts, namely Yendi municipality and Zabzugu district.

3.2.1 The Yendi Municipality

The Yendi Municipality is located in the eastern corridor of the northern region, and shares borders with Saboba District to the east, Chereponi and Zabzugu Districts to the south, Nanumba North District to the north, Gushegu and Mion Districts to the west (see figure 3.1) (GSS, 2014). The population of the Municipality is 117,780, with varied ethnic groups. The Dagombas however constitute the majority (GSS, 2013). About 44% of the population is urban, with remaining being rural (GSS, 2013). The Municipality has 12,721 households (GSS, 2014). The average household size in the Municipality is 9.3 persons. Children (48.3%) of head of household constitute the largest proportion of household members (GSS, 2014).

The total fertility rate (TFR) is 3.0 lower than the regional average of 3.6. The municipality records a general fertility rate (GFR) of 85.1 births per 1000 women aged 15-49 years, and this is the lowest in the northern region (GSS, 2014). About 54.6% of the population aged 12 years and older are married (GSS, 2014).

Education and literacy rates are rather low in the municipality, consistent with the rest of northern region. Close to two thirds (62.9%) of the population aged 11 years and older in

the Yendi Municipality are not literate. About 54.6% of the population aged 12 years and older are married, while some 39% of the population 12 years and older have never been married (GSS, 2014). Most people are subsistence farmers, and the area as a whole is very poor (Chuks et al., 2007).

3.2.2 The Zabzugu District

The Zabzugu district is located in the eastern part of the northern region and covers an area of 1,100.1sqKm2. The district borders Tatale/Sanguli district to the east, Yendi Municipality to the west, Nanumba North District to the south, and the Soboba District to the north (see figure 3.1) (GSS, 2013). The district has a population of 63,815 with males constituting 49.1% and females 50.9 % (GSS, 2014). About 32% of the population lives in urban areas (GSS, 2013). The district has an illiterate population of 69.2% (GSS, 2014). About 62.0% of the population 12 years and older are married (GSS, 2013).

The TFR for the district is low ((2.2), compared to the regional fertility rate of 3.5. The General Fertility Rate is 65.2 births per 1000 women aged 15-49 years (GSS, 2014). The Crude Birth Rate (CBR) is 15.9 per 1000 population (GSS, 2014). The crude death rate for the district is 3.1 deaths per 1000 (GSS, 2014).

3.2.3 Reproductive, maternal and child health in the northern region

With a population less than 15years constituting 44.9%, the northern region has a youthful population. About 21.2% of population aged less than 19 years are in some form of marital relationship (GSS, 2014). The 2010 PHC reports that 54.3 % of the population 12 years and above are married. The region has a TFR of 6.6 children per woman as compared to the national figure of 4.2 (MICS, 2017). The northern region reports the highest neonatal deaths of 25 per 1000 live births, infant mortality of 37 per 1000 live births, and Under-5 mortality of 52 per 1000 live births (MICS, 2017). The northern region however records the lowest HIV prevalence of less than 1 percent (GSS, 2013) and

the lowest female literacy rate of 44.3% (GSS, 2013). With a Maternal mortality ratio of 207.3, the northern region has an increased risk of women dying GHS, 2016). According to the 2017 Maternal Health Survey, 9 out of 10 pregnancies in the northern zone result in a live birth (88%) compared with just under three-quarters (74% each) in the Coastal and Middle zones (GSS, 2018). The use of modern contraceptive methods is lowest in the northern region at 17% (MICS, 2017).

3.2.4 Socio-cultural context and household decision making in the northern region

Although Ghana became the first country in Sub-Saharan Africa to halve extreme poverty about a decade ago, poverty rate in the three northern regions cannot be ignored. (UNICEF, 2014; World Bank,2014). Currently, the United Nations (2016) measures extreme poverty as people living on less than $1.25 daily, (about Ghc5). In the northern region however, more than 7 in 10 residents are in the lowest wealth quintile (World Bank, 2014).

The social organization of the peoples of the Northern region is informed by patrilineal descent ideologies (Awedoba, 2006). Property rights and succession to traditional positions are based largely on paternal ties where sons succeed fathers (Awedoba, 2006). In some respects, groups like the Dagomba and Gonja and a few others seem to accord more or less equal importance to relationships traced to maternal and paternal relatives (Awedoba, 2006).

Most cultures especially the Dagomba culture is heavily influenced by Islam(Awedoba, 2006). Though most Dagbamba chiefs are males, a few royal women (i.e. daughters of kings) are appointed to a limited number of chieftaincy titles (Jönsson,2007; Awedoba, 2006). The traditional religious beliefs still count for much among the people of the northern region. There is frequent recourse to the ancestors and the divinities in accounting for incidents in the lives of people (Awedoba, 2006). Sacrifices are made to

invite the intercession of the ancestors and the local gods. However, in some of the communities, Islam has taken deep roots which dates back to precolonial times (Jönsson,2007; Awedoba, 2006).

In spite of modernisation, factors which have facilitated the emergence of nuclear families seem not to have affected the traditional extended family control in the region (Chuks et al., 2007). The extended family system remains a common practice in most parts of the northern region (NPC, 2007). Most Married couples live together, often in the house of the husband's father if he is alive (Chuks et al., 2007). Most women after delivery leave the matrimonial homes to their family house. This has been described as a means of child spacing (NPC, 2007).

Family life in the northern region remains male dominated, guided by normative principles, institutions and beliefs that vary across the region (Chuks et al., 2007). The 2011 MICS report showed that the Northern region has the country's highest rate of children living with both parents (74.8%). Just over one in ten children (9.2%) do not live with a biological parent. The region has the tradition of *mpraba* , where fathers give at least one child, mostly females, to an older sister to look after. Although this system is meant to strengthen the bonds between families, most of the children become house workers, are not allowed to attend school, and may be physically abused.

The foremost protective system for children outside the nuclear family is the extended family, comprising uncles, aunts and grandparents. On the one hand, grandparents sometimes provide extra food, protect children from being beaten and provide guidance and counselling. Aunties on the other hand take on the role of substitute mothers when the parents are away and provide children with food and clothing. Children under the care of step-parents or foster parents may have a status inferior to the biological children of the household and may be given excessive workloads. In the northern region, some children

are reportedly maltreated by step-parents to the extent that it puts an end to their education. As the mpraba tradition continues adults who were victims of the system also tend to transfer the maltreatment they received to the children of their brothers brought under their care (Jönsson, 2007).

3.2.5 The position of women and men in the northern region

The northern region is a patriarchal society where men play important roles as heads of their households, the custodians of their lineage and bread winner (Alhassan, 2013). By the nature of the study communities, men control land and other economic resources while their wives are expected to depend on them for all matters (Jönsson, 2007; Awedoba, 2006). In the northern region, it is mothers who are the primary caregivers (NPC, 2013). Some fathers provide clothing, pay school fees, provide money for food, solve family disputes, name children, set the rules and regulations, and provide security for the family (NPC, 2013).

Perceptions about women is still negative and traditional (Jönsson,2007; Awedoba, 2006). Women's lower social status in several settings in the northern region contributes to limited power to enjoy RH rights (NPC, 2013). Most of the communities in the northern regions follow strict gender roles in the division of labour (Alhassan,2013). Women spend most of their time working between their homes and the fields as well as taking care of children (MoGSP, 2013). They do more household chores than their male counterparts, and this limits their time to take part in developmental community activities where they have a chance to address issues that concern them (MoGSP, 2013).

Also 71% of women in the northern region are more likely than other women to seek for permission in seeking health care for themselves (Ganle, 2015; GSS, 2013). Husbands often make decisions about family planning and the use of household resources that influence the well-being and prospects of the whole family (NPC,2013; MoGSP,2013).

Decisions on when to have another child and number of children to have are usually made by men and their kinsmen. Men play decisive roles in many aspects of womens lives in the northern region (NPC, 2013). The health of women in these communities is essentially in the hands of the men, who due to the availability of financial resources and the power they possess as community heads, political heads or indeed as husbands and fathers often wield enormous power over many aspects of women's lives and can decide the kind of attention to give a woman's health (UNFPA, 2008; Chuks et al., 2007). Lack of women's decision-making power can negatively affect maternal health (NPC, 2007).

Although women in the northern region are perceived to have little or no control over their own economic and reproductive lives caution must be taken to avoid generalisation since the northern region is the largest and most diverse region. The amount of control men have over their wives varies from place to place, could change over time and could be influenced by several factors.

Norms and practices on matters of reproductive health and desirable age and the way in which a spouse is selected, depend on a society's understandings of the family – its role, structure, pattern of life (UNICEF. 2001). However, issues concerning early and forced marriages, sexual intercourse and condom use are shrouded in secrecy in many parts of the northern region (GSS,2013; Alhassan 2013). In addition, rural women in the region face inequalities in education, access to healthcare facilities, justice, ownership of land for agricultural practices and social and economic power (MoGSP, 2013). Women in the region are given land by their husbands and most at times, these plots of land are less fertile and unable to produce sufficient yield to enhance their livelihoods(Jönsson,2007; Awedoba, 2006). This situation makes women vulnerable, by preventing them from gaining economic freedom and independence (Jönsson, 2007; Awedoba, 2006).

The socio-cultural context of the northern region therefore makes it conducive for studying how early reproductive health decisions like early sex, early marriage and non-consensual marriages are linked reporoductive health outcomes in later adult life.

3.2.6 Selection of study region, districts, communities and justification

The Northern Region (NR) was purposively selected based on a number of specific factors in addition to the socio-demographic and socio-cultural features described above. First, available national statistics suggest that child marriage prevalence in the northern region is 36% (MoGCSP, 2015). Second, according to the 2014 GDHS report, the northern region also has the highest (39.6%) early marriage rate (GSS, 2014). These factors made the region ideal for this type of study.

As shown earlier, two districts - Yendi and Zabzugu - were purposely selected to capture a diversity of social and health situations. From each of the two study districts, two communities were randomly selected. Communities were clustered into urban and rural after all communities were listed and numbered. For each of the district, one community each was selected to represent the urban and rural clusters. These included Gbungbalga and Nakpachei in the Yendi municipality and Zabzugu (Lanjeli) and Kukpaligu in the Zabzugu district.

3.3 Study Design

It was a cross sectional study which adopted a concurrent mixed method design. A concurrent design needed to respond adequately to all research questions. Creswell (2012) defines a mixed method as an approach of enquiry that combines or associates both qualitative and qualitative forms of data collection, analysis and interpretation. Creswell (2012 further explains that, a mixed methods design offers an expanded understanding of the research problem and therefore the findings (Creswell and Plano, 2016). A mixed

methods design was deemed most appropriate for this study because it offered opportunity for using different techniques to collecting and interpreting data, with good potential for methods and data corroboration or triangulation, which enhance validity and reliability of research findings (Creswell, 2012). A mixed method works to mutually strengthen the research findings (Creswell & Garrett, 2008). This is adopted to address specific areas of the objectives. The appropriateness and relevance of this approach lie with the fact that the study is grounded in women's experience, which recognizes the role of the life course theory in explaining women's early RH experiences are linked to future RH outcomes.

3.3.1 Pragmatism philosophy in mixed method research

The use of a mixed methods approach found within the research process is based on a rationale of making a number of pragmatic decisions. It is a problem-oriented philosophy that takes the view that the best research methods are those that help to most effectively answer the research question. As a philosophical approach, it means more than willingness to compromise. It calls for a distinctive way of understanding truth that begins with examining what practical difference ideas or beliefs make.

Pragmatism as a paradigm has been mostly proposed and argued as providing philosophical and methodological foundations to the use of mixed methods research (Biesta. 2010; Creswell, 2010; Teddlie & Tashakkori, 2009). However, some researchers such as J. Green and Hall (2010), Mertens (2012) and Morgan (2014a) contend that the terms qualitative and quantitative point to types of data and not the philosophical dimensions of epistemology, ontology and design assumptions and thus avoid the use of mixed methods as paradigm which many other and earlier researchers such as (B. Johnson & Onwuegbuzie, 2004), and Creswell and Plano Clark (2011) had used in their writings. Mertens (2012, 2015), argues that paradigms themselves cannot be methodological in nature, rather these lead to the choice of methods based on some beliefs and careful

reflection, whereas B. Johnson and Onwuegbuzie (2004) state that choice/use of mixed methods is a paradigm itself.

The word pragmatism etymologically came from the Greek word _pragma' (πρᾶγμα) which literally mean _action' and consequence of an action. Pragmatism may be defined as —solving problems in a practical and sensible way rather than by having fixed ideas or theories‖ (Oxford Dictionaries Language Matters, 2016c). This definition points towards the non-theoretical and non-philosophical nature of pragmatism and suggests its practical nature. From a pragmatist point of view, knowledge comes from taking action and learning from the experiences and outcomes of these actions (Morgan, 2014a). All these meanings indicate the action-oriented nature of pragmatism rather than the philosophical as suggested by some researchers such as Mertens (2015). Therefore, the major rationale behind using pragmatism as a guiding paradigm for this study is its action-oriented nature because the focus of this research is designing, implementing and evaluating the teaching-learning intervention in response to the problems of learning and motivation encountered.

Morgan (2014a) states that pragmatism is —particularly appropriate‖ (p.8) for mixed methods research and note that there are a variety of ways these methods can be used. Johnson and Gray (2010) point to their bias towards _dialectical pragmatism' as —a philosophical partner of MM (mixed methods) [sic]‖ (p.72) and argue that multiple perspectives should be dialectically examined to —create workable solutions in addressing important research questions and social problems‖ (p.72). In this way, Johnson and Gray (2010) also propose pragmatism as an appropriate paradigm for the conduct of mixed methods studies. However, there are others,

such as Hall (2012), who argue in favour of using the realist paradigm pointing to the —serious limitations‖ (p.1) associated with pragmatism stating that —pragmatism does not enter in to the choice of mixed methods nor justify its use‖ (p.4) for conducting mixed

methods research. Others, for instance Taylor and Medina (2013) propose the use of multiple paradigms in the form of a —new integral paradigml (p.9) to design new and hybrid methodologies and epistemologies for mixed method research. This multiple paradigm stance is also supported by B. Johnson and Gray (2010), who advocate for ontological pluralism and label it as multiple realism which, they state, is a product of embracing all types of objective, subjective and intersubjective realities. Egbert and Sanden (2014), are also of the view that sometimes multiple paradigms can produce rich results for some research. Issues about the relevance are discussed in the following section.

3.2.2 Pragmatism as an appropriate paradigm

On one hand, positivism (post-positivism per se) appears appropriate to this study because of the teaching experiment (intervention) and the quasi-experimental research design use to carry it out, while on the other hand, constructivism also seems appropriate as students studied science concepts in small groups by using discussions, dialogues, and argumentations to construct knowledge in groups (see section 2.6). Because the elements of social context (interactions, co-construction, cultural etc.) and emotions (beliefs, values) are involved in the process of knowledge construction in the classroom context, the thesis of one objective reality does not work in this case and thus positivism (and post-positivism) does not appear to be an appropriate paradigm to guide the enquiry. Constructivism allows for multiple subjective realities based on social interaction. But, because the scientific knowledge in science (related with scientific laws, theories and facts) is not subjective in nature as is the case of social science subjects, there is typically only one kind of _true' (scientific) knowledge in science. Moreover, as the knowledge construction depends on different varieties of prior knowledge and beliefs, they can all lead to misconceptions, wrong or alternative conceptions or different conceptions to those

that are agreed upon by the scientific community. Thus, this study also fits poorly with constructivism.

The researcher instead has taken a pragmatist stance in this study. The overall belief about pragmatism use, in addition to its whatever works' approach, is that pragmatism stresses action and learning from experiences (reflection) which fits the focus of the current study. In addition, pragmatism also provides a suitable research framework in terms of the process of enquiry for the conduct of this study (methodology) as advocated by John Dewey (cited in Morgan, 2014b). This aspect is explained in the following section.

Figure 3.2 illustrates the concurrent mixed method design used. It outlines the processes and procedures of how the researcher used the mixed methods design for data collection. Integration of quantitative and qualitative results was the final step employed to establish the relationship between reproductive health decisions and associated outcomes to achieve the objectives of the study. In what follows, the different components of the research design are explained in detail.

3.3.3 Inclusion and exclusion criteria

Participants for the study were basically women between ages 15- 49 with a minimum marriage experience of five years in the NR

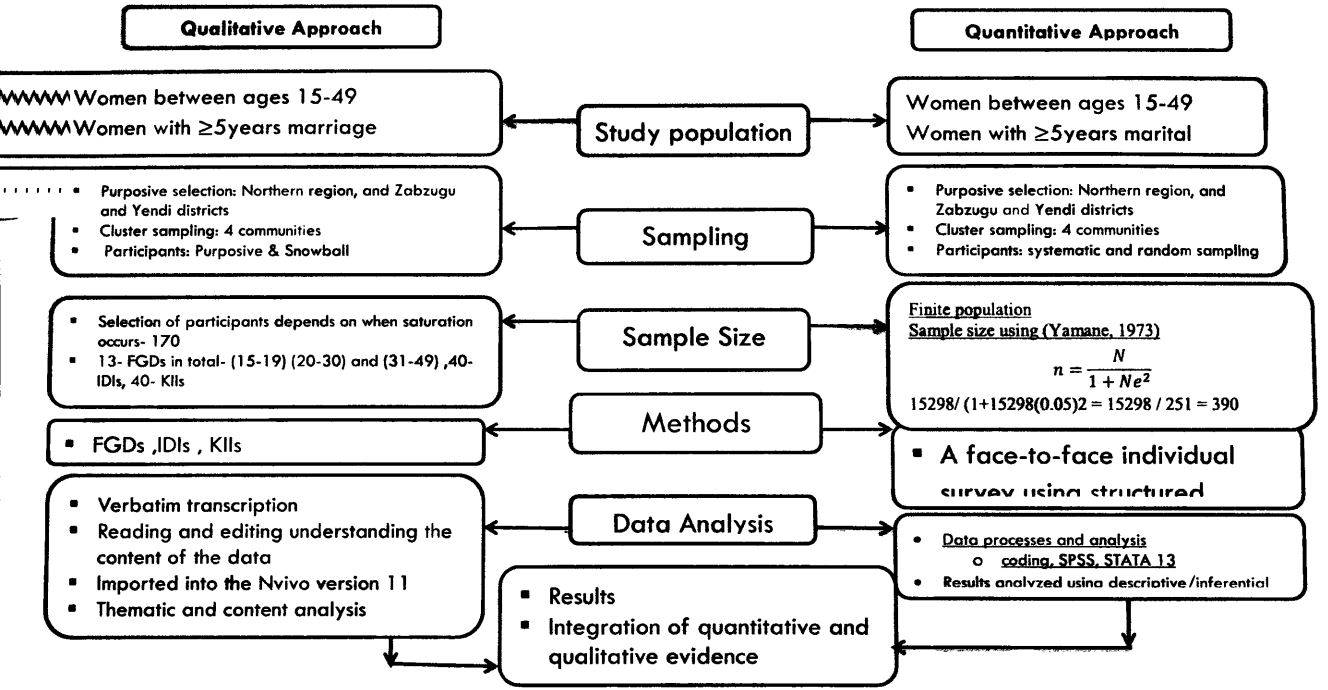

Figure 3.2: Diagrammatic expression of research design

3.4 The Qualitative Research

3.4.1 Participants

Qualitative research was conducted with a total of 130 women who had at least 5years marital experience. In addition, a total of 40 key informants took part in the qualitative study. These comprised chiefs, assembly members, opinions, and heads of institutions who were working in areas related to women's reproductive health as well as women's general welfare.

3.4.2 Sampling and recruitment procedures

A combination of purposive and snowball sampling were used to sample and recruit participants into FGDs, IDIs and KIIS. Specifically; women were purposively selected to take part in FGDs while key informants were selected using purposive and snowball sampling techniques. The researcher worked with the Ghana Health Service community health volunteers in consultation with the assemblymen to recruit and mobilize eligible participants for the study. A purposive sampling technique was used to select key informants based on participant's activities and knowledge in the area of research.

3.4.3 Qualitative data collection methods and tools

3.4.3.1 Focus Groups Discussions (FGDs)

FGDs were employed to collect qualitative data from women with at least five years marital experiences. A total of 13 FGDs were conducted with 130 participants. Three (3) FGDs were conducted in each community except in Lanjeli where four discussions were held. The FGDs were segmented by age as well as by women's RH decisions experiences. For instance, in each community, FGDs were held with women who were all forced into marriage so as to gain insight into and in-depth understanding of their experiences. Similarly, and where feasible, FGDs were segmented by age (15-19) (20-30) and (31-49

years) to prevent age hierarchy conflicts and promote effective participation from all respondents. Discussants in FGDs ranged from 8 participants to a maximum of 12 participants.

In each FGD, unstructured topic or question guides were used to facilitate discussion. The guide focused on exploring early RH decisions of women, socio cultural factors influencing RH decisions and RH outcomes experienced by women. The information gathered addressed all four study objectives. The FGD sessions discussed RH decisions experiences of women and the socio-cultural influences of their RH decisions

All FGDs was held in the study communities, at venues chosen in consultation with participants and community gatekeepers. Each FGD session lasted between 1.30 to 2 hours. All FGD discussions were conducted in the local dialects –Dagbani and Likpakpa (Konkonba) and later transcribed into English. This is because literacy levels according to the 2010 PHC reports are very low in the study communities. Besides, the use of the local language effectively engaged participants and ensured that the interview language was not a barrier to effectively exploiting the full benefits of FGDs. Discussions in FGDs were tape-recorded alongside hand written notes.

3.4.3.2 In-depth Interviews (IDIs)

In-depth interviews were further conducted with selected women participants who took part in the focus group discussion. A total of 40 In-depth interviews were conducted across all four study communities. The essence was to follow up on discussions during the FGDs. Selection of participants for the IDs was done based on level of participation and critical issues that emerged during the FGD session and needed further clarification and follow up discussion. In total, 40 IDIs were conducted across the four study communities.

Similar to the FGDs, unstructured topic or question guides were used to facilitate discussions in IDIs. The guide focused on exploring experiences of women's socio – cultural influences on RH decisions and outcomes.

All IDIs were held in the study communities, at venues and time agreed upon by each participant and the researcher. Each IDI session lasted between 15 to 30 minutes. All IDIs discussions were similarly conducted in the local dialects –Dagbani and Likpakpa (Konkonba). Discussions in IDIs were tape-recorded alongside hand written notes.

3.4.3.3 Key-Informant Interviews (KIIs)

Key informant interviews (KIIs) were also with people deemed to be knowledgeable about community norms and practices. A total of 40 KIIs were held across all four study communities. The key informants comprised community leaders, opinion leaders, 2 Chiefs of Lanjeli and Kpukpalga, Head teachers of Lanjeli community school and Nakpache JSS, traditional, religious and political leaders in all 4 study communities and healthcare providers of Nakpachei and Yendi. Also KIIs were held with Magazias (queen mothers) and older people who have lived in the research communities for a long time and might have witnessed, influenced, intervened or participated in any of the RH decisions made by women. In addition, key informants from institution working in the area of RH, early marriages and forced marriages, and teenage pregnancy were included. These institutions were also classified into government institutions (GES, Department of Social Welfare, and Department of women, DOVVSU, CHRAJ, and GHS), Non-Governmental Organizations (NGOs) (ActionAid, NORSAAC and AGREDS) and donor organizations like UNFPA and UNICEF.

Similar to the FGDs and IDIs, unstructured question guides were developed and used to facilitate discussions in KIIs. The guide focused on exploring such issues as the relations between RH decisions women made and present outcomes.

KIIs were held at various locations, from the study communities to institutional offices at the district and regional levels. Interview venues and time were similarly agreed upon by each key informant and the researcher. Discussions in KIIs lasted between 20 to 35 minutes. KIIs were conducted in both the local dialects –Dagbani and Likpakpa (Konkonba), and English. Where permission was obtained, discussions with KIIs were tape-recorded. Only handwritten notes were taken where a participant objected to tape-recording of the discussion.

3.3.5 Data Quality Assurance Mechanisms

To ensure credibility, the data analysis team with experience in qualitative research reviewed and coded the data, compared and discussed differences between coding and then clarified the codes. Dependability was ensured by careful transcription and analysis of the data. Additionally, careful description of the decisions during analysis of the data was made. Confirmability was enhanced by the data analysis team's openness to the creation of new themes as these emerged from the data (Flick, 2003). Trustworthiness of the data was ensured through early analysis of the initial data to check out for gaps. Besides, the guides were continuously revised where necessary to cater for gaps before continuing with the data collection. Use of multi-disciplinary team during analysis made the code more reliable. The use of experienced research assistants for data collection was another measure to ensure quality data were collected

3.3.6 Qualitative data analysis

The qualitative data were analyzed to ensure better explanation and interpretation of the quantitative findings. All qualitative data collected were analysed using thematic analysis approach (Braun, Virginia, & Clarke, 2006; Hycner, 1985). Several steps were followed in conducting the analysis.

The first step involved transcription. The researcher sought the services of language specialists in Likpakpa (kokomba) and Dagbani in the institute of languages in Tamale who transcribe all tape-recorded interviews into English. This first step was completed with a separate summary of each transcript outlining the key points participants made in response to the questions. Following from this, the researcher familiarized herself with the data. The familiarisation phase involved reading and re-reading the data set to become immersed with its entire content. Once general understanding was developed, all transcripts were imported into NVIVO for coding to generate important features that might be relevant to answering the research questions. During coding, succinct labels were generated. The labels were used to identify important features of the data which were relevant to the objectives of the study. This was followed by the searching for relevant themes. In this phase, the labels were critically examined and collated to identify broader patterns of meaning. These patterns became the themes. The themes were then reviewed by comparing the themes with the data set to determine whether they answer the research questions or help achieve the objectives of the study. Similarities and differences in themes from both the study communities were noted. Results were discussed according to the pertinent themes. The next phase involved developing detailed analysis of the themes and finding an informative name for each theme. Finally, the report was written by weaving together the narrative and data extracts. It also involved relating the analysis to existing literature from the four study communities.

3.4 The Quantitative Research

3.4.1 Respondents

The study respondents for the quantitative aspect of the study were women between the ages of 15-49, who have been married for at least five years. The choice of the category was to enable information gathering on early RH decisions and implications.

3.4.2 Sample Size Determination

Since the population of women aged 15-49years in the study area was known, the study adopted Yamane's (1973) statistical formula for estimating sample sizes for cross-sectional studies with finite populations. The formula is given as:

$n_Y = N / (1 + Ne^2)$.

Where N = population size, and e = alpha level, i.e. e = 0.05 at a confidence level of 95%. The total population of females aged 15-49 from the four selected communities was 15,298 as shown in Table 3.1. Substituting these numbers into the formula, the sample size was thus derived:

$15298/ (1+15298(0.05)^2 = 15298 / 251 = 390$.

Table 3.1: Communities and population aged 15-49 in the Yendi Municipality

S/No. Community Name	Total	Male	Female
Yendi	51,339	25,304	26,035
Nakpachei **	2,961	1,489	1,472
Adibo	2,579	1,352	1,227
Gbungbalga **	2,548	1,291	1,257
Kuga (Kpatuya)	2,220	1,161	1,059
Sakpiegu	1,784	916	868
Bonbona Yili	1,710	843	867
Yareni	1,650	831	819
Tindang	1,502	650	852
Bachabodo	1,243	622	621
Sabare No.I	1,183	588	595
Kpalsoni	1,154	587	567
Maabamboli	1,141	588	553
Sukaani	1,057	540	517
Nyankani	1,018	501	517
Bonbonayili	1,024	469	555
Wambung I & Ii	991	494	497
Nalorgba	975	491	484
Gnani	974	503	471
Tusani	968	504	464

** indicated selected communities

Data obtained from Yendi District statistical Services,2016

Table 3.2: Communities and population size in the Zabzugu Municipality

S/No. Community Name	Total	Male	Female
Zabzugu **	20,420	9,851	10,569
Nakpali	1,533	756	777
Gbandi	2,013	991	1,022
Woribogu	1,618	853	765
Kukpaligu **	3,861	1,855	2,006
Old Gor (Gortani)	1,431	684	747
Kuntumbiyili	1,423	743	680
Sabondjida I	1,287	607	680
New Nyankpala	1,194	592	602
Subruni	1,177	569	608
Tatindo No. 1	1,153	562	591
Wieshini	1,120	620	500
Jegiriyili (Jegridor)	1,084	559	525
Dagbabani	1,040	506	534
Ojoeja	1,012	504	508
Sabare No. 1	991	514	477
Mojina Battor	990	468	522
Polarido	913	445	468
Binyinkumdo	903	433	470
Kpalgagbini	949	452	497

Data obtained from Zabzugu District statistical Services,2016

Table 3.3: Illustrates selected communities from the two districts based on GSS criteria of urban and rural communities

Districts/ Communities	
Yendi District	**Zabzugu District**
Gbungbalga	Zabzugu (Lanjeli)
Nakpachei	**Kukpaligu**

Table 3.4: Proportional allocation of sample size to communities

Districts	Zabzugu Tatale	Yendi municipality
Rural Communities sizes	2006	1,257
Urban Communities	10,569	1,472
% district rural population	2006 x 100% = 16% 12569	1257 x 100% = 46% 2729
% district urban population	10569 x 100% = 84% 12569	1472 x 100% = 54% 2729
District rural sample sizes (n)	(0.16 x 195) =31	(0.46x 195) = 90
District urban sample sizes	(0.84 x 195) = 164	(0.54 x 195)=105

Table 3.5: Sampling sizes allocation by communities

Zabzugu		Yendi		Total
Zabzugu	Kukpaligu	Nakpachei	Gbungbalgu	
164	31	105	90	390

3.4.3 Sampling

A combination of systematic and random sampling techniques were used to sample respondents into the quantitative study. All houses in all four selected communities were first numbered and a list of houses with their respective numbers compiled. Household listing also identified the location of the eligible participants to establish a sampling frame for the survey and each household with eligible participants was marked After the household listing was completed, all the households with eligible participants (marked X) in each study area were listed on a separate paper. The households were then numbered. A total of 1,000 had eligible participants. Each community was divided by the total number of houses by the sample size allocated for that community to get a sampling interval. Sampling sizes allocation by communities were Zabzugu-180, Kukpaligu-16, Nakpachei 105, Gbungbalgu 89. With a total of 1000 houses in Lanjeli/ Zabzugu, 1000/164 = 6. Counting and selection of household commenced with 1, then 7th house until all 180 respondents were interviewed.

Since one house can have more than one woman who meets the inclusion criteria, then simple random sampling was applied to select only one. This involved giving numbers to each, writing the numbers on pieces of paper and placing the pieces of paper in bowls, and randomly picking only one.

Where there was only one woman who met the inclusion criteria and agreed to take part in the study, such a woman was automatically included. Where any of the systematically selected houses has no woman who met the inclusion criteria, the next house was selected, and the sampling interval was appropriately applied to select the next house and respondents

3.4.3 Quantitative data collection methods and tools

A face-to-face survey was conducted. Structured questionnaire was developed and used to solicit information on both early RH decisions and RH outcomes among respondents. The researcher adapted some of my questions from the 2014 GDHS and 2010 PHC. The questionnaire was divided into four sections. The first part was soliciting information on socio-demographic characteristics of respondents. This was followed by the second section which concentrated on RH decisions women had made, followed by the third section on the socio-cultural systems that might have influenced women's RH decisions, final sections was on the experiences of RH outcomes of women

3.4.4 Pretest

To determine the reliability of the instrument, a pretest testing was done in Savelugu in order to ensure consistency of the guides to the cultural context of the northern region. New issues emerging from the pretest results were included in the question guides after discussing the results with the supervisory team. Similarly, the question guides were pre-tested from 30-31 July 2016. Each qualitative data collector conducted two in-depth interviews as part of the field practices. After each interview, the researcher discussed with research assistant. Results showed that some of the questions were unclear while

other questions were duplicated. These issues were sorted out by rephrasing and re-wording of the questions in order to ensure consistency and clarity of the items in the questionnaire and deleted duplicated questions.

3.4.5 Data quality assurance

To determine the reliability of the research instrument (questionnaires) a pretest was done in Naayilifon in Kanshegu (Savelugu district) from the 29-31 of July 2016. It is vitally important that you pre-test your survey before administering it to your research sample. Training of research assistants ahead of the pretest and questionnaires checked for consistency. Pre-testing is the opportunity to see what questions work well, what questions sound strange, what questions can be eliminated and what needs to be added. Is the survey too long? Are respondents losing interest? These issues were sorted out by rephrasing and re-wording of the questions in order to ensure consistency and clarity of the items in the questionnaire and deleted duplicated questions. Each research assistant conducted administered 5 interviews. 3 FGD sessions were held, 2 IDIs

To ensure credibility, the data analysis team with experience in quantitative research reviewed and coded the data, compared and discussed differences between coding and then clarified the codes. Double entry of data and data stored under lock and key

3.4.6 Quantitative analysis

3.4.6.1 Operationalization and Measurement of Variables

Two main categories of variables were defined and measured in this study, namely dependent and independent variables.

An early reproductive health decision in this study is limited to negative RH decisions only.

3.4.6.1.1 Dependent variables

Four primary outcome or dependent variables were defined and measured in this study. These are spousal contraceptive communication, Gender Based Violence (GBV), Fertility and Unintended pregnancy.

Spousal contraceptive communication

For the purpose of this study Spousal contraceptive communication is focused solely on communication between husband and wife about family planning and the desired number of children and use of modern contraceptive method (USAID, 2017; ICRW, 2016; Najafi-Sharjabad, 2014). For the purpose of this study, spousal contraceptive communication was measured by the following question: have you ever had any communication about contraceptive use with your husband/partner? This was measured as a binary outcome where if the respondent answered "Yes" the response was interpreted as good spousal communication, and was coded as 0. Where the respondent answered "No", it was interpreted to mean poor spousal communication and was coded as 1.

Gender Based Violence (GBV)

Gender-based violence includes physical, sexual and psychological violence such as domestic violence; sexual abuse, including rape and sexual abuse of children by family members; forced pregnancy; sexual slavery; traditional practices harmful to women, such as honor killings, burning or acid throwing, female genital mutilation, dowry-related violence; violence in armed conflict, such as murder and rape; and emotional abuse, such as coercion and abusive language. Trafficking of women and girls for prostitution, forced marriage, sexual harassment and intimidation at work are additional examples of violence against women. However for the purpose of this study GBV is limited to physical violence (UNFPA,2013; UNIFEM, 2002; , Winrock International, 2001). For the purpose of this study, Gender Based Violence (GBV) was limited to physical violence. It was

measured by asking respondents the question: Have you ever been hit by your husband/partner for any reason? If the respondent answered "Yes", the response was interpreted to mean she has experienced GBV and the response was coded 0. However, if the response was "No", it was interpreted to mean the respondent has never experienced GBV, and the response was coded 1.

Fertility

The number of children ever born to a particular woman is a measure of her lifetime fertility experience up to the moment at which the data are collected (WHO,2015).Fertility was measured by asking respondents the question: "How many children have you had in your life?" The response was categorised into low and high fertility, using the national fertility estimate of 5.2 (GDHS, 2014), where low fertility was < 4.2 and high fertility ≥ 4.2.

Unintended pregnancy

Multiple approaches exist for defining and measuring unintended pregnancy, which complicates efforts to design, implement and evaluate family planning programmes. Moreover, the concepts underpinning these definitions and measures vary, and so comparisons between measures may not be valid if based on different constructs. For the purpose of this study unwanted pregnancy is defined as-A pregnancy is most commonly defined as unintended if it is either unwanted (i.e. occurred when no children or no more children were desired, sometimes termed "number failures"), or is mistimed at the time of conception (i.e. occurred earlier than desired but would have been desired at a later time, sometimes termed "timing failures"). Sedgh et al, 2014; Studies in Family Planning 2012.

Unintended pregnancy was measured in the study by asking respondents the question: Have you ever been pregnant but did not want to get pregnant at that time? Yes implied

unintended pregnancy has been experienced and was coded 0. If the respondent answered "No" to the question, then it was regarded as not experienced unintended pregnancy and was coded 1.

3.4.6.1.2 Independent variables

In addition to several socio-demographic, economic, cultural and environmental factors that were measured as independent variables, four specific independent variables of interest in this study were defined and measured. These variables are broadly referred to as the early reproductive health decisions. For the purposes of this study, *reproductive health decision-making in this study is defined as the ability of a woman to decide or share equally in decisions that relate to her reproductive health.* These include early sex, early marriage, and consent to marriage partner.

Early sex

The Children's Act 1998 of Ghana provides in section 13(2) that a person of 18 years and above may legally enter into marriage. This is because the laws of Ghana recognise a person who attains 18 years as an adult, devolving unto him or her right to vote. The Children's Act thus puts the minimum marriage age in Ghana at 18 years but allows girls to engage in consented sex at age 16. In this study, ***early sex was therefore defined and measured as having had first sexual intercourse before age 16.***

Early marriage

The UN Convention on the Rights of the Child (CRC) defines a child as "every human being below the age of eighteen years. Child marriage, also known as early marriage, is defined as "[A]ny marriage carried out below the age of 18 years, before the girl is physically, physiologically, and psychologically ready to shoulder the responsibilities of marriage and childbearing." Marriage is understood as a formalised, binding partnership between consenting adults, which sanctions sexual relations and gives legitimacy to any

offspring. In this study, *early marriage was defined and measured as any union contracted for a girl below age 18. Age at first marriage was also defined in the study as the age at which the respondent began living with her first spouse/partner.*

Consent to marriage partner

Non-consensual marriage is a marriage in which one or more of the parties are married without his or her consent or against his or her will. A forced marriage differs from an arranged marriage, in which both parties consent to the assistance of their parents or a third party (such as a matchmaker) in choosing a spouse. *Non-consensual marriage was defined as any marriage arrangement which does not seek the consent of the woman.*

3.4.6.2 Data processing and analysis.

Before entering data, all questionnaires were coded by assigning numbers to each response item to ensure that missing values (e.g. not answered questions were clearly identified as missing data. All questionnaires were reviewed to ensure completeness and free of errors and inconsistency. The numerically coded data were entered in SPSS and exported to Stata version 13 for cleaning and analysis.

Descriptive univariate analysis using frequencies were used to describe important characteristics of survey respondents. For example, to determine the prevalence of early RH decisions in the study population, frequency and percentage distributions coupled with precision estimates were used. That is, univariate analysis was used to examine overall proportion of women who experienced RH decisions of early sex, early marriage and consent to marriage. Univariate analysis was used to examine overall proportion of women who experienced RH outcomes of spousal communication; gender based violence, unintended pregnancy and fertility. Variables that were measured as continuous were described using measures of central tendency (means, standard-deviations).

Bivariate and multivariate logistic regression analysis were performed to examine association between early reproductive health decisions and reproductive health outcomes in later life. Confidence level and statistical significance were set at 95% and a p-value<0.05 respectively. To examine the relationship between early RH decisions and related RH outcomes, bivariate analysis was done. Bivariate analyses (chi-square tests) were used to assess associations between early reproductive health (RH) decisions and RH outcomes and multivariate analysis.

3.5 Ethical Consideration

3.5.1 Research Preparation

Prior to the fieldwork, a reconnaissance survey was conducted by the researcher to familiarize herself with the study area and equip herself with information about the study area and target population and as well solicit support and co-operation from the leadership in the study area ahead of data collection. This preparatory visit was not only an ethical research requirement, but also gaining support from community leaders gave credence and enhanced co-operation in this research (Sakyi, 2004). The researcher visited all four selected communities - Gbungbalga and Nakpachei in the Yendi district, and Lanjeli and Kukpaligu in the Zabzugu districts. Areas which were visited included, the Municipal health centre, and the Municipal Assembly where information on population and women in reproductive age were obtained. The preliminary information gathering was aided by four assemblymen from the study communities. They provided useful information and introduced the researcher to opinion leaders in all four selected study communities.

3.5.2 Ethical approval

The research adhered to principles of scientific responsibility, integrity, honesty, freedom of expression and transparency. The study was approved by the Ghana Health Service

Ethical Review Committee (Protocol ID number GHS-ERC: 01/04/16) before commencement of the study. Administrative approval was sought and obtained from the northern regional Health Directorate of the Ghana Health Service. A letter of introduction was sent to the two districts assemblies in which the study was conducted.

Informed written consent was obtained from all participants. The consent forms made it clear that there was no penalty for refusal to participate in the study or for refusal to answer any specific questions. The purpose of the study was also explained fully. The form also made it clear that no monetary rewards would be given for participation.

3.5.3 Quantitative Analysis

Before entering data, all questionnaires were coded by assigning numbers to each response item ensure that missing values (e.g. not answered questions are clearly identified as missing data. All questionnaires were reviewed to ensure that dataset was complete and free of errors and inconsistency. Well-structured questionnaire was designed to collect quantitative data. Data were entered in SPSS and exported and analyzed in Stata version 13. Background characteristics of the study participants were described using measures of central tendency (means, standard-deviations, frequencies and percent frequency).

Univariate analysis: Frequencies were used to describe the various socio-demographic variables of age, religion, educational background, employment status, Reproductive health decisions and RH outcomes. Univariate analysis was conducted using frequency distributions. Chi-square\ Fisher's exact tests were used to analyze the following: age of respondents, community of residence, highest educational level of respondent, religious affiliations, employment status of women and age at marriage and consent to marriage partner.

To determine the prevalence of early RH decisions in the study population, frequency and percent frequencies coupled with precision estimates were used. That is, univariate analysis was used to examine overall proportion of women who experienced RH decisions of early sex, early marriage and consent to marriage.

The second objective was to determine the prevalence of RH outcomes in the study population. Univariate analysis was used to examine overall proportion of women who experienced RH outcomes of spousal communication; gender based violence, unintended pregnancy and fertility.

To examine socio-cultural influences on early RH decisions (spousal communication; Gender based violence, unintended pregnancy and fertility), bivariate analysis was conducted using Chi-square test of independence. This was followed by multivariate logistic regression analysis to quantify the effect of socio-cultural on RH decisions.

To achieve the fourth objective which was to investigate the relationship between early RH decisions and related outcomes-bivariate analysis was done. Bivariate analyses (chi-square, cross -tabulations, ANOVA, and t-tests) was used to assess associations between early reproductive health (RH) decisions and RH outcomes and multivariate analysis.

Univariate analysis was used to to analyse the following:

Describe the various socio-demographic variables. E.g. age, religion.

- To examines overall proportion of women who experienced RH decisions of early sex, early marriage and consent to marriage.
- To examine overall proportion of women who experienced RH outcomes of fertility, unintended pregnancy, GBV, and to explore Spousal contraceptive communication

However bivariate analysis based on Chi-square test of independence to assess relationship between early RH decision and reproductive health outcomes. Also multivariable logistic regression analysis was used to identify associations between RH decisions and RH outcomes. Binary logistic regression was used in estimating the crude odd ratios and multivariate logistic estimating used in adjusted odd ratios.

All statistical analyses were conducted using Stata15, and $p<0.05$ was considered statistically significant at 95% confidence level.

3.6 Results: Integration of Quantitative and Qualitative Evidence

The integration of quantitative and qualitative results was performed to achieve the objectives of the study as shown on Figure 3.2 which illustrates the concurrent mixed method design. Results of quantitative data were evaluated using mainly descriptive statistics, whilst qualitative data were analyzed with a structuring content analysis (Mayring, 2001).

CHAPTER FOUR

RESULTS

4.1 Introduction

This chapter presents the results of the study. The results cover socio-demographic characteristics of respondents; prevalence of negative early reproductive health (RH) decisions (i.e. early sex, early marriage, and consent to marriage partner) as well as prevalence of reproductive health outcomes (i.e. fertility, unintended pregnancy, and gender-based violence and spousal communication). The chapter also presents findings on the relationships between the early RH decisions and RH outcomes.

4.2 Socio-demographic characteristics of respondents

A total of 390 women between the ages of 15-49 years participated in the quantitative survey. Table 1 shows the socio-demographic characteristics of the survey respondents. The majority (24.4 %) of the women were aged 31 years and above. Some 76.4% of the respondents had no education. Of the 390 respondents, 41.3% married the Muslim way, whereas the rest were married by either customary, ordinance or were cohabiting. About two-thirds (66.7%) of the women belonged to the Islamic faith or religion whereas 4.4% were Catholics and about 17.2% were non-Catholics. Though some (34.1%) of the women got educated to the primary level, the majority (43%) had no education. Also, 66.7% of the respondents were unemployed and the remaining 33.3% were employed.

Table 4.1: Socio-demographic characteristics of survey respondents (n=390)

Variable	Category	Frequency	Percent
Age (years)	15-19	156	40.0
	20- 29	139	35.6
	30 -49	95	24.4
Marriage type	Customary	101	25.9
	Ordinance /Christian	64	16.4
	Co-habiting	64	16.4
	Muslim	161	41.3
Respondents' Highest level of education	No education	298	76.4
	Primary	50	12.8
	JHS	36	9.2
	SHS	6	1.5
Highest educational level of guardian	No education	212	54.4
	Primary	139	35.6
	JHS	39	10.0
Religion	Catholic	17	4.4
	Protestant	25	6.4
	Pentecostal	42	10.8
	Muslim	260	66.7
	Traditionalist	46	11.8
Employment Status	Unemployed	260	66.7
	Self employed	130	33.3
Hierarchical status of wives	First Wife	110	28.2
	Second Wife	104	26.7
	Third wife	97	24.9
	Fourth Wife	72	18.5
	Fifth Wife	7	1.8
Number of children	1 - 3 children	96	24.6
	4 - 6 children	182	46.7
	6+ years	112	28.7

4.3 Early reproductive decisions among respondents

One of the objectives of the study was to determine early reproductive decision-making among reproductive women in the study area. Three key early reproductive health decisions were assessed: timing of sex, early marriage and consent to marriage partner. Tables 4.2-4.4 show the results. More than half (57.9%) engaged in first sex before age 16. The prevalence of early sex was thus 57.9%.

Table 4.2: **Prevalence of early reproductive health decisions among survey respondents (n=390)**

Early Reproductive Health Decisions	Frequency	Percent
Early Sex		
Yes	226	57.0
No	164	43.1
Total	390	100.0
Early Marriage		
Yes	117	30.0
No	273	70.0
Total	390	100.0
Consent to marriage Partner		
Yes	77	19.9
No	311	80.2
Total	390	100.0

Results from the qualitative research component largely corroborated the issue of early sexual debut observed from the survey results. For instance, the assembly man for Nakpachee lamented during an interview on early sex thus:

> *Yes, early sex is my biggest challenge as an assembly man. I have been an assemblyman for 16years. Young girls have a term 'a naa nin amaânya'. You can sleep with her thinking she is a small girl. Young underage girls around 12 years even some below 12 years who are sexually active but who are least suspected by men to be up to it. When a man eventually have sex with such a girl, she would look at the man up in the face and say, 'haven't you seen, ''a naa nin amaânya' (KIIS, Nakpachee Assemblyman).*

The Dagbani expression *'a naa nin amaãnya'*, literally translates in English as 'you would have done or denied yourself, meaning you would have done yourself a disservice if you had mistaken me for a small girl.

> *On weekly basis I get reports of pregnant pupils in primary and Junior High School (JHS). Most parents don't care about the welfare of their girl child. It is as if they expect them to care for themselves. So most of these girls who do not get one meal to eat at home engage in sex (transactional) to get money to feed themselves. Some as young as 10 years (IDS GES Girl child Officer).*

> *Most young girls in the northern region engage more in transactional sex to get money for food and other basic needs due to parental neglect. ActionAid collaborates with DOOVSU and other stakeholders on community sensitization on teenage pregnancy. We also take young people on the excursion to PPAG, MSI and other health centers to provide sex education (IDI ActionAid Gender Officer).*

> *Teenage pregnancy is very common in Zabzugu. Most young girls drop out of school due to pregnancy. Virtually every year we record about 4-6 girls who are unable to write their BECE because they get pregnant and feel shy to come and write the exams. I blame it on moral decadence, peer influence, parental neglect. Parents don't care about the welfare of the girl child. Then inappropriate forms of entertainment in the communities. Cinemas where inappropriate films are shown and also at funerals (KIIS Head teacher DA JSS Zabzugu).*

In relation to early marriage, 70% of the respondents married after age 18. The prevalence of early marriage was 30%. The relatively high prevalence of early marriage among respondents was explained in different ways during qualitative key informant interviews. Justifying early marriage during a key informant interview, the Gbungbalga Chief argued:

> *Marriage offers the ultimate protective measure against sexual immorality, and early marriage is ideal because it minimizes the risk of pre-marital sex. Early marriage ensures that a girl is placed firmly under male control, that she is submissive to her husband and works hard for her in-laws. So, it is good. At least even if the woman dies, she died as a married woman.(KII, Chief, Gbungbalga).*

> *Marriage exchange is one reason why girls marry early. This is practiced amongst the konkonbas. Marriage exchange is a custom of barter trade of girls where young girls are exchanged in order to enable their male siblings to marry. If a man can't afford the bride price for the woman he loves, he can pick a younger sibling marry her off to a brother of his to be bride to offset the payment of bride price. . If for instance I go somewhere and marry an adult girl or woman, the brother of that girl would follow up and demand that I also give him a wife. If I don't have an adult sister, any girl, whether grown or young, the girl would be compelled to marry my brother in-law (KIIS Nakpachee Assemblyman).*

Another discussant had this to say during a FGD session:

> *In Konkombaland, girls if not engaged to men at tender ages, getting a husband in future engagement come with challenges of premarital sex (FGD, P2 G1, Kukpaligu).*

One also said:

> *I was a foster child with my auntie and I was not in school I was forcefully pushed into a relationship with a man and delivered a child before he married me. I was about 13 years when I was given out to my husband. I never engaged in pre-marital sex. In this village your name would ring bells if you engage in premarital sex. My partner was the one who broke my virginity before marriage (FGD, P10 G3 Lanjeli/Zabzugu).*

Others reported:

> *About 15-years old, I was abducted by a young man while returning home from school near Yendi. I was in class 4. I have since been married to my husband since I won't get the support of anybody in the family even if I tried to escape. I have not tried to escape so I have to agreed and happily married (FGD, P7 G3 Gbungbalga).*

> *I was a foster child with my auntie, then suddenly my uncle's son (cousin) who was always kind and respectful to my auntie decided to seek for my hand in marriage. I had no objection than to agree to my auntie's decision (FGD, P4 G3, Lanjeli/Zabzugu).*

The prevalence of non-consensual marriage among the women sampled in the survey was 80.0% (95% CI: 75.71% – 83.69%). This implies that 80% of respondents did not have a say in the choice of their marriage partner.

Table 4.3 presents age disaggregated results on age at first sex, age at marriage and consent to marriage partner. Early sex among the below 16 year group was highest (58%). With regard to early marriage, 30% of the women married before age 18. However, 58.5% of the respondents married within the age bracket of 18-25. Non-consensual marriage was highly noted between the age groups of 15-19 and 20-29 years.

Table 4.3: Distribution of Early Reproductive Health Decisions by Age

Variable		Frequency	Percent
Age at First Sex			
Below 16		225	58.0
16 – 25		144	37.1
26 – 35		19	4.9
Age at Marriage			
Before 18		117	30
18 - 25		228	58.5
26 - 36		45	11.5
Consent to Marriage Partner			
15 -19	Yes	30	7.7
	No	126	32.3
20 -29	Yes	15	3.9
	No	124	31.8
30 -49	Yes	34	8.72
	No	61	15.6

Can table 4.3 be more exhaustive to show the distribution by districts?

Table 4.4 compares early reproductive health decision-making in the four study communities, namely Lanjeli/Zabzugu, Gbungbalga, Nakpachei and Gbungbalgu. With the exception of Kukpaligu, more than half of the women from Lanjeli/Zabzugu, Nakpachei and Gbungbalgu had sex before attaining the age of 16. Also, 51.61% of women in Kukpaligu got married before age 18 while most of the women from the other

communities got married at age 18 and above. A Pearson Chi-square test of independence however showed no association between community of residence and early sex (X^2 = 4.619, p = 0.202).

With regard to consent to marriage partner, none of the women in Gbungbalga had a say in the choice of their marriage partner. Lanjeli registered the highest (25.6%) consent to marriage partner. However, seven out of every ten women in Lanjeli/ Zabzugu, Kukpaligu and Nakpachei did not select their marriage partner by themselves. A Pearson Chi-square test of independence showed significant statistical association between community of residence and women's consent to their mariage partner ($\chi^2 = 29.30$, $p < 0.001$). Thus the community of residence determines or has an influence on a woman's choice of marriage partner.

Table 4.4: Distribution of Early Reproductive Health Decisions by Community

Early RH Decisions	Yes (n, %)	No (n, %)	Total (n, %)	χ^2	p-value
				4.619	0.202
Early Sex					
/Lanjeli/Zabzugu	104(63.4)	60(36.6)	164(100)		
Kukpaligu	14(45.2)	17(54.8)	31(100)		
Nakpachei	58(55.2)	47(44.8)	105(100)		
Gbungbalga	50(55.6)	40(44.4)	90(100)		
Total	226(57.6)	164(42.1)	390(100)		
Early Marriage				13.562	0.004
/Lanjeli/Zabzugu	54(33.0)	110(67.1)	164(100.0)		
Kukpaligu	16(51.6)	15(48.4)	31(100.0)		
Nakpachei	20(19.1)	85(81.0)	105(100.0)		
Gbungbalgu	27(30.0)	63(70.0)	90(100.0)		
Total	117(30.0)	273(70.0)	390(100.0)		
Consent of Marriage Partner				29.296	<0.001
/Lanjeli/Zabzugu	42(25.6)	122(74.4)	164(100.0)		
Kukpaligu	8(25.8)	23(74.2)	31(100.0)		
Nakpachei	28(26.7)	77(73.3)	105(100.0)		
Gbungbalgua	0(0.0)	90(100.0)	90(100.0)		
Total	78(20.0)	312(80.0)	390(100.0)		

4.4 Explaining Early Reproductive Health Decision-Making among Respondents

A number of factors, including individuals, such as friends, fathers, and spouses influence the RH decision-making process among respondents of the study. Table 4.5 below shows the actors who influenced respondents' early reproductive health decisions. About 174 (45%) were influenced by their partners to have sex for the first time; 23.3 % of the respondents were influenced by friends; and 12.6% were influenced by family. However, almost 81% of the respondents described their first sexual encounter as consensual, while 19.2% of respondent described their first sex as non-consensual (see table 4.6).

Table 4.5: Influencers of Early RH decisions

Variable	Categories	Frequency(n)	Percent (%)
Influencers of Early Sex	Partner	158	40.5
	Friends	81	20.8
	Self	91	23.3
	Relatives	60	15.4
Influencers of Early Marriage	Self	15	3.9
	Future spouse and myself	58	14.9
	Self with my family	61	15.6
	My father only	198	50.8
	Family of future spouse	35	9.0
	Other	23	5.9
Influencers of choice of marriage partner	Married out of Love	80	20.5
	Arranged marriage	184	45.2
	Future spouse	80	20.5
	Friends	46	11.8

The study also found that culture reinforced subservience among women in all four study communities. A participant had this to say during a FGD session:

> *We are advised to be quiet when dealing with sexual issues. If you talk a lot, people may think you control your husband so we are taught to be submissive and not challenge the decisions of our husbands (FGD 3, Trader, Nakpachei).*

Also from table 4.5 only 80 out of the 390 respondents indicated that they had married out of love. The rest were influenced by family and friends. In table 4.6, 62 respondents

however indicated that they have made attempts to escape from their marriage, while the remaining 328 indicated that they have never made attempts at escaping from the marriage. Out of the 62 respondents that made attempts at escape, most were unsuccessful and had to succumb to the pressures of forced marriage. One participant had this to say during a FGD session:

> *There is nobody here who runs away because of forced marriage. We all have accepted and we are living with it (FGD, All participants G1, Gbungbalgu).*

It is noteworthy that only 18 out of 390 respondents also selected their own marriage partners. Quiet revealing is the influence of fathers in the choice of respondent's marriage partner. From table 4.5, fathers alone influenced almost 51% of respondents' decision to marry. This finding was corroborated during FGD discussions:

> *I don't know how a man courts a woman. One day my father called me and introduce a man to me as my husband and that if I disobey his directive I would never be happy. I am told if you don't heed to your parents' choice you would have calamities like barrenness in life (FGD, P8 G3, Gbungbalga).*

Another discussant said:

> *If you disobey your father and incurs his wrath, the consequences could be barrenness which has a telling effect on marriage* (FGD, Wasawasa seller G1, Kukpaligu).

One discussant also reported:

> *I had a man of my choice but my father rather imposed his choice on me. I obliged and married the man.* (FGD, Farm worker G1, Lanjeli).

Table 4.6: Other factors contributing to early RH decisions

Variables	Frequency(n)	Percent (%)
Nature of first Sex		
Consensual	315	80.8
Nonconsensual	75	19.2
Total	390	100.0
Made attempt to escape from marriage		
Yes	62	15.9
No	328	84.1
Total	390	100.0
Marital Status of partner at time of marriage		
Single	65	16.7
Married	325	83.3
Total	390	100.0

But it is not only the case that several women did not select their own marriage partners. Majority of the respondents (83.3%) actually went into marriage as additional wives - second, third and some even as fifth wives (see table 4.6). Only 16.7% of the respondents married husbands who were single men or are the first wives to their husbands.

The results showed that influencers of early RH decisions of early sex, early marriage and consent of marriage respectively were future partner, fathers of the women and arranged marriages

4.5 Reproductive health outcomes

This section presents results on the prevalence of reproductive health (RH) outcomes that were examined, namely fertility, unintended pregnancy, gender based violence, and spousal communication among the women surveyed. A descriptive analysis with cross tabulation of the variables is presented to determine differences across age groups and the four study communities.

The prevalence of poor spousal communication among women sampled in the northern region was 42.3% (95% CI: 37.4 – 47.3%) (See table 4.7). Qualitative findings largely corroborate these survey results. One participant said:

> *I interact with my husband only at night because he seems to have married the farm and not me (*FGD, P5 G1, Gbungbalga*).*

Another said:

> *As for my husband and I, we don't chat. When he is entering the house and you see him, fear grips you because he can shout and get you confused (FGD, Farm worker, Nakpachee).*

Furthermore, the prevalence of GBV among the women surveyed was 27.4% (95% CI: 23.2 – 32.1%). In a FGD session, a woman had this to say on GBV:

> *Yes, when I was pregnant my husband beat me. It was just that he was angry over my attitude (FGD, P6 G2, Nakpachee).*

Table 4.7: Prevalence of RH outcomes among respondents

Variable	Frequency(n)	Percent (%)
Spousal contraceptive Communication		
No	224	57.73
Yes	164	42.27
Ever experienced GBV		
No	283	72.56
Yes	107	27.44
Ever experienced Unintended Pregnancy		
No	292	74.87
Yes	98	25.13
Fertility		
Low fertility	215	55.13
High fertility	175	44.87

Confirming her experience of GBV another woman had this to say:

> *My husband does not mind insulting me in public. When I register my displeasure about being embarrassed, he sees me as undermining his authority and for which I have to be beaten in public (FGD, P2 G3, Lanjeli).*

Sharing her experience of GBV, another participant had this to say during a FGD session:

> *Marriage here is like extra hands for farm work; we do farm work just like our husbands. I never worked like this at my parents'. Here, you still have to come and do house chores. We go to farm even when we are pregnant. Someone gave birth at the farm recently (FGD, G3, Kukpaligu).*

In addition, the proportion of women who have ever experienced unintended pregnancy was 25.1% (95% CI: 21.1 – 29.7%). Similarly, the proportion of respondents classified as having high fertility was 44.9% (95%CI: 50.14- 60.02%). Evidence from the qualitative data also supports the findings in table 7.

> *I have six children, but I need seven kids. So am expecting one more (FGD, P4 G2, Zabzugu)*
>
> *If the pregnancy doesn't come, that is ok, but I cannot decide not to get pregnant. My husband would not even agree (FGD, G1, Naphachee)*

4.6 Association between early reproductive health decisions and outcomes

This section examines the relationship between early decisions and RH outcomes in later life. Also, socio-economic and demographic factors are examined to establish the extent to which these variables affect the RH outcomes measured in the study.

4.6.1 Association between early RH decisions and spousal contraceptive communication

The life course theory links early life events to later life outcomes. Although the theory examines the interdependence of events over the life course, it also emphasizes the timing of these events. This study therefore examined if the early life experiences of RH decisions that affect later life consequences of RH outcomes. More specifically, the study aimed to know if women's age at first sex was associated with the life course experience of spousal fertility communication, GBV, unintended pregnancy and fertility challenges;

Whether women's age at first marriage affects the life course experience of RH outcomes of spousal fertility communication, GBV, unintended pregnancy and fertility, and whether consent to a marriage partner was associated with RH outcomes.

The study made interesting findings on the interplay between the socio-cultural systems on spousal contraceptive communication on Table 4.8. Patterns of spousal communication vary across the life course and between communities and particular groups in the population. Results from the bivariate analysis in Table 4.8 show that 64% (n=105) of women who engaged in early sex had experienced poor spousal contraceptive communication. The results also show that age at first sex, age at first marriage and consent to marriage partner were statistically associated with spousal contraceptive communication ($p<0.05$). Additionally 83.18% of respondents who experienced GBV had not consented to their marriage partner. The study found evidence linking early RH decisions to RH outcomes in the adult lives of respondents. Among women who did not consent to their marriage partner 114(69.5%) experienced poor spousal fertility communication

Patterns of spousal contraceptive communication vary across the life course. Results from the multiple logistic regression analysis in Table 4.9 showed that age at marriage was predictive of poor spousal contraceptive communication ($p=0.021$). The odds of good spousal contraceptive communication were greater among those who had married at age 18 or older than among those who had married early.

However, when other factors like age of respondents, community of residence, highest educational level of respondent, religious affiliations, employment status of women were controlled for, age at which the respondents married as well as whether they had a say in selecting their husbands were found to have significant relationships with good communication with their husbands (spousal communication) ($p<0.05$).

Also from chi-square\Fishers exact tests in Table 4.8 other factors which included the age of respondent, community of residence, educational level of respondent, religious affiliations, employment status, age at which the respondents married as well as whether respondents had a say in selecting their husbands were found to have significant relationships with good communication with their husbands (spousal communication) ($p<0.05$). There was no sufficient evidence to show that number of wives (hierarchical marital status) of wife by respondents' spouse was significantly predictive of spousal contraceptive communication. Fourth Wives more likely than other wives to experience (0.001***) good spousal contraceptive communication.

Table 4.8: Association between early RH decisions on spousal contraceptive communication (bivariate)

	Poor Spousal Communication				
Variable	Yes	No	Total	χ^2	*p*-value
Early sex					
Yes	105(64.0)	120(53.6)	225(57.9)	4.25	0.039*
No	59(35.9)	104(46.4)	163(43.0)		
Age at sex					
Below 16	105(64.0)	120(53.5)	225(57.9)		
16 – 25	51(31.1)	93(41.5)	144(37.1)	4.55	0.103
26 – 35	8(4.9)	11(4.9)	19(4.9)		
Early marriage					
Yes	51(31.1)	65(29.0)	116(29.9)		
No	159(70.9)	113(68.9)	272(70.1)	0.20	0.658
Age at marriage					
Before 18	51(31.1)	65(29.0)	116(29.9)		
18 – 25	107(65.2)	120(53.5)	227(58.5)	17.78	< 0.001***
26 – 36	6(3.7)	39(17.4)	45(11.6)		
Consent to marriage Partner					
Yes	50(30.5)	27(12.1)	77(19.9)		
No	114(69.5)	197(87.9)	311(80.2)	20.227	< 0.001***
Age (years)					
15 -19	111(49.6)	44(26.8)	155(39.9)		
20 – 29	52(23.2)	86(52.4)	138(35.6)	36.609	<0.001***
30 to 49	61(27.2)	34(20.7)	95(24.5)		
Community					
Lanjeli/Zabzugu Lanjeli	84(51.2)	80(35.7)	164(42.3)		
Kukpaligu	14(8.5)	17(7.6)	31(7.9)	31.34	< 0.001***
Nakpachei	20(12.2)	84(37.5)	104(26.8)		
Gbungbalga	46(28.1)	43(19.2)	89(22.9)		
Educational level					
No education	123(75)	173(77.2)	296(76.3)		
Primary	33(20.1)	17(7.6)	50(12.9)	20.88	< 0.0001
JHS/SHS	8(4.9)	34(15.2)	42(10.8)		
Religion					
Catholic	1(0.6)	16(7.1)	17(4.4)		
Protestant	15(9.1)	10(4.4)	25(6.4)		0.001** §
Pentecostal	12(7.3)	30(13.4)	42(10.8)		
Muslim	120(73.2)	140(62.5)	260(67.0)		
Traditionalist	16(9.8)	28(12.5)	44(11.3)		
Employment status					
Unemployed	122(74.4)	136(60.7)	258(66.5)		
Self employed	42(25.6)	88(39.3)	130(33.5)	7.95	0.005**
Hierarchical status of wife					
First Wife	43(26.2)	67(30.0)	110(28.4)		
Second Wife	30(18.3)	72(32.3)	102(26.4)		
Third wife	59(35.9)	38(17.0)	97(25.1)		< 0.001***
Fourth Wife	28(17.1)	44(19.7)	72(18.6)		
Fifth Wife	4(2.4)	2(0.9)	6(1.6)		

p<0.05,**p<0.01,***p<0.001 values were based on Pearson chi-square and Fishers exact test for categorical variables, and ǂ estimated p-value from the Welch t-test, § p-value estimate from Fisher's exact test. SD: Standard Deviation. (%) represent column percentage.

Results from the multiple logistic regression analysis in Table 4.9 showed that age at marriage was predictive of poor spousal communication (p=0.021). The odds of good

spousal communication were greater among those who had married at age 18 or older than among those who had married early.

The odds of experiencing good spousal contraceptive communication were 7.14 times higher among women who consented to their marriage partner compared to those who had no say in choosing their married partner's. Women who did not consent to their marriage partner had 1.14 times higher likelihood of having additional children compared to those who consented to their marriage partner.

Women's age at first marriage affects the life course experience of spousal contraceptive communication.

Conversely, women who had married late had reduced odds of having experienced poor spousal contraceptive communication. Women who married before age 18 (early marriage) were 3.27 times more likely to experience poor spousal contraceptive communication relative to those who married between the age bracket of 26 - 36 after controlling for other covariates (AOR: 3.268, 95%CI: 0.832 – 9.709). However, Table 4.9 shows that women who married before age 18 years (early marriage), had 0.68 times less odds of experiencing poor spousal contraceptive communication compared to those who married at age 18 to 25years (AOR: 0.68, 95%CI: 0.540 – 1.825).

Women's consent to a marriage partner also affects the life course experience of spousal contraceptive communication. Women who did not consent to their marriage partner had 0.86 less likelihood of having good spousal contraceptive communication compared to women who consented to their marriage partner. The odds of respondents who had consented to their marriage partner experiencing good spousal contraceptive communication were 7.14 times higher compared to those who had no say in choosing their married partners after all other factors were controlled for (AOR: 7.143, 95%CI:

3.247 – 16.667). Comparing, p-value 0.05>0.001 therefore we fail to reject the null hypothesis and therefore conclude that there is a relationship between consent to marry partner and spousal communication

Patterns of spousal contraceptive communication vary across the life course. It is observed that poor spousal contraceptive communication attributable to early RH decisions can also be explained by socio-demographic factors.

Women with primary educational level were 2.0 times more likely to experience good spousal contraceptive communication with their spouses compared to those without any formal education. Third wives have about 5.3 times more chance of having good spousal contraceptive communication than first wives (AOR: 5.01 95%CI: 1.57 – 15.2.12).

Further the study made interesting findings on the interplay between the socio-cultural systems on spousal communication. Patterns of spousal communication vary across the life course and between communities and particular groups in the population.

The odds of experiencing good spousal communication were 7.14 times higher among women who consented to their marriage partner compared to those who had no say in choosing their married partner's. Women who did not consent to their marriage partner had 1.14 times higher likelihood of having additional children compared to those who consented to their marriage partner.

Women with primary educational level were 2.0 times more likely to experience good communication with their spouses compared to those without any formal education. Third wives have about 5.3 times more chance of having good spousal communication than first wives (AOR: 5.01 95%CI: 1.57 – 15.2.12).

Women's age at first marriage affects the life course experience of spousal communication. Patterns of spousal fertility communication vary across the life course.

Table 4.9: Association between early RH decisions and Spousal communication (logistic regression)

	Spousal contraceptive communication			
	Unadjusted (95% CI)	P - value	Adjusted (95% CI)	P- value
Age at first sex		0.104		0.007**
Below 16	ref			
16 – 25	0.6 (0.4 - 10)		0.4(0.2-0.7)	
26 – 35	0.8 (0.3 - 2.1)		0.6(0.2-2.4)	
Age at marriage		<0.001***		
Below 18	ref			0.019*
18 - 25	1.1 (0.7 - 1.9)		1.5(0.8-2.7)	
26 - 36	0.2 (0.1 - 0.5)		0.3(0.1-0.9)	
Consent to marriage Partner		< 0.001***		p< 0.001***
No	3.2 (2.0- 5.4)		7.1 (7.7-14-0.3)	
Yes	ref		ref	
Age (years)		<0.001***		p< 0.001***
15 – 19	ref			
20 – 29	4.2(2.6 – 6.8)		8.7(3.8-19.9)	
30 – 49	1.4(0.28 – 2.4)		4.4(1.7-11.3)	
Communities		< 0.001***		p< 0.001***
Lanjeli/Zabzugu	ref			
Kukpaligu	0.8 (0.4 - 1.7)		0.6(0.2-2.1)	
Nakpachei	0.2 (0.1 - 0.4)		0.1(0.0-0.2)	
Gbungbalgu	1.0 (0.6 - 1.7)		2.6(1.0-6.9)	
Educational level		<0.001***		0.080
No education	ref			
Primary	2.7 (1.5 - 5.1)		1.9(0.8-4.6)	
JHS/SHS	0.3 (0.2 - 0.7)		0.5(0.2-1.4)	
Religion		0.008**		0.015**
Catholic	ref			
Protestant	24 (2.732 - 210.8)		21.1(1.9-233.8)	
Pentecostal	6.4 (0.8 - 53.8)		2.9(0.2-36.3)	
Muslim	13.7 (1.8 - 104.9)		6.2(0.6-64.8)	
Traditionalist	9.1 (1.1 - 75.5)		13.1(1.2-148.2)	
Employment status		0.005**		0.427
Unemployed	ref			
Self employed	0.532 (0.342 - 0.827)		1.44(0.6-3.6)	
Hierarchical status of wife		<0.001***		p<0.001***
First wife	ref			
Second Wife	0.7 (0.4 - 1.2)		0.9(0.4-2.3)	
Third wife	2.4 (1.4 - 4.2)		8.4(3.2-22.2)	
Fourth Wife	0.9 (0.5 - 1.8)		2.9(1.1-7.7)	
Fifth Wife	3.1 (0.6 - 17.8)		4.9(0.7-36.1)	

Ref: reference category, AOR: adjusted odds ratio from the multivariable logistic regression model, CI: confidence interval. p<0.05, **p<0.01, ***p<0.001

4.6.2 Association between early RH decisions and gender-based violence

The overall proportion of women who experienced gender based violence (GBV) was 27.4% (95% CI: 22.9-31.9%). In Table 4.10, 85.5% (n=47) of the women who had early sex experienced GBV. Age at first sex was associated with gender based violence (p< 0.001). The odds of experiencing GBV was 2.65 times greater among women who had

sex before age 16 years (early sex) compared to those who had sex between the ages of 16-25 years after adjusting for other covariates (AOR: 2.652, 95% CI:1.439 – 4.878). Similarly, women who had early sex (i.e. sex below 16years) were 3.29 times more likely to have ever experienced GBV relative to those who had first sex between the ages of 26 to 35 years after adjusting for all other covariates.

The results from the Chi-square test of independence showed a statistical significant relationship between age at first sex and gender based violence ($p<0.05$; Table 4.10).

About 37.4% (n=40) of the respondents who had experienced GBV married early. There exist a significant association between early marriage and GBV ($p< 0.001$). Table 4.10 shows that 83.2% of respondents who experienced GBV had not consented to their marriage partner. A chi-square test showed that there is no significant association between consent to marriage partner and experience of GBV however ($p= 0.335$).

In addition to the four early RH decisions examined, socio-demographic factors were analyzed to assess their relationship with GBV.

Also from Table 4.10, factors such as community of residence of respondents, respondents' educational level, religion, employment status, hierarchical status of respondent, as well as number of wives of respondent's husband had showed significant associations with GBV ($p<0.05$). Although in the univariate model, respondents' employment status, number of wives, age at marriage were predicting GBV, they were not statistically significant in the multivariate model (see Table 4.11).

Table 4. 10: Association between early RH decisions on Gender Based Violence (GBV)

	Ever experienced Gender Based Violence			χ^2	*p*- value
	Yes	No	Total		
Early sex					
Yes	47(85.5)	179(53.4)	226(57.9)	19.88	<0.001
No	8(14.6)	156(46.5)	164(42.0)		
Age at sex					
Below 16	77(71.9)	149(52.6)	226(57.9)		0.002**§
16 - 25	27(25.2)	118(41.7)	145(37.1)		
26 - 35	3(2.8)	16(5.6)	19(4.8)		
Early marriage					
Yes	40(37.3)	77(27.2)	117(30)	3.83	0.050*
No	67 (62.6)	206(72.8)	273(70)		
Early marriage					
Before 18	40(37.3)	77(27.2)	117(30)		0.003**§
18 - 25	63(58.8)	165(58.3)	228(58.4)		
26 - 36	4(3.7)	41(14.5)	45(11.5)		
Consent to marriage Partner					
Yes	18(16.8)	60(21.2)	78(20.0)	0.931	0.335
No	89(83.2)	312(80.0)	223(78.8)		
Age (years)					
15 – 19	34(31.8)	122(43.1)	156(40.0)	4.384	0.111
20 – 29	45(42.1)	94(33.2)	139(35.6)		
30 – 49	28(26.2)	67(23.7)	95(24.4)		
Communities					
Lanjeli/Zabzugu	60(56.1)	104(36.7)	164(42.1)	27.36	< 0.001**
Kukpaligu	14(13.1)	17(6.0)	31(7.9)		
Nakpachei	11(10.3)	94(33.2)	105(26.9)		
Gbungbalgu	22(20.6)	68(24.0)	90(23.0)		
Educational level					
No education	75(70.1)	223(78.8)	298(76.4)	12.88	0.002**
Primary	24(22.4)	26(9.1)	50(12.8)		
JHS/SHS	8(7.5)	34(12.0)	42(10.7)		
Religion					
Catholic	1(0.9)	16(5.6)	17(4.3)		0.036* §
Protestant	11(10.3)	14(4.9)	25(6.4)		
Pentecostal	12(11.2)	30(10.6)	42(10.7)		
Muslim	75(70.1)	185(65.3)	260(66.6)		
Traditionalist	8(7.5)	38(13.4)	46(11.7)		
Status					
Unemployed	86(80.4)	174(61.4)	260(66.6)	12.47	< 0.001***
Self employed	21(19.6)	109(38.5)	130(33.3)		
Hierarchical status of wife					
First Wife	22(20.6)	88(31.2)	110(28.2)		< 0.001*** §
Second Wife	18(16.8)	86(30.5)	104(26.7)		
Third wife	44(41.1)	53(18.7)	97(24.9)		
Fourth Wife	19(17.7)	53(18.7)	72(18.5)		
Fifth Wife	4(3.7)	2(0.7)	6(1.5)		

*p<0.05, **p<0.01, ***p<0.001. Values were based on Pearson chi-square and Fishers exact test for categorical variables, and ⋆ estimated p-value from the Welch t-test, § p-value estimate from Fisher's exact test. (%) represent column percentage

The multivariable logistic regression analysis in Table 4.11 revealed that women from Nakpachei had 0.92 lesser chance of experiencing GBV than those from Lanjeli-*Zabzugu*. This relationship was however not statistically significant (p=0.215) (see Table 4.11).

However, the regression model showed that women who married before age 18 years (early marriage), had almost the same odds of experiencing GBV.

Women who married before age 18 (early marriage) were 2.84 times more likely to have ever experienced GBV relative to those who married between 26 to 36 years after controlling for other covariates (see Table 4.11).

Married women with primary level education were 2.3 times more likely to experience GBV compared to those without any formal education. Protestants were 29.5 times more likely to experience GBV than catholic women. Third wives have about 4.9 times greater chance of experiencing GBV compared to first wives

The multivariable logistic regression analysis showed that women who lived in Kukpaligu, Nakpachei and Gbungbalga experienced higher GBV compared to those in Lanjeli/Zabzugu ($P<0.001$,Table 4.11)

Table 4. 11: Effect of early RH decisions on ever experiencing gender based violence (GBV)

	Ever experienced GBV			
	Unadjusted OR (95% CI)	*p* - value	Adjusted OR (95% CI)	*p*- value
Age at first sex				
Below 16	ref			
16 – 25	0.443 (0.268 - 0.73)	0.003**	0.377 (0.205 - 0.695)	
26 – 35	0.363 (0.103 - 1.284)		0.304 (0.068 - 1.354)	0.004
Age at marriage				
Below 18	ref			
18 - 25	0.735 (0.455 - 1.188)	0.01*	1.008 (0.548 - 1.852)	
26 - 36	0.188 (0.063 - 0.562)		0.352 (0.103 - 1.201)	0.215
Age (years)				
15 – 19	ref		ref	
20 – 29	1.718(1.021 – 2.890)		1.408 (0.679 - 2.92)	
30 – 49	1.500(0.838 – 2.684)	0.114	1.636 (0.675 - 3.961)	0.512
Consent to marriage Partner				
Yes	Ref			
No	1.33 (0.744 - 2.379)	0.336	1.591 (0.737 - 3.435)	0.237
Communities				
Lanjeli/Zabzugu	ref			
Kukpaligu	1.427 (0.657 - 3.1)		0.747 (0.248 - 2.25)	
Nakpachei	0.203 (0.101 - 0.409)	< 0.001***	0.079 (0.024 - 0.26)	<0.001***
Gbungbalgu	0.561 (0.315 - 0.998)		0.266 (0.096 - 0.742)	
Educational level				
No education	ref			
Primary	2.745 (1.486 - 5.068)	0.002**	2.291 (1.012 - 5.184)	
JHS/SHS	0.7 (0.31 - 1.578)		0.529 (0.174 - 1.602)	0.049*
Religion				
Catholic	ref			
Protestant	12.571 (1.437 - 110.009)		29.452 (2.617 - 331.456)	
Pentecostal	6.4 (0.762 - 53.764)		2.469 (0.201 - 30.32)	
Muslim	6.486 (0.845 - 49.786)	0.067	1.887 (0.182 - 19.615)	0.001***
Traditionalist	3.368 (0.389 - 29.189)		3.836 (0.312 - 47.108)	
Employment status				
Unemployed	ref			
Self employed	0.39 (0.229 - 0.665)	0.001**	0.657 (0.255 - 1.697)	0.386
Hierarchical status of wife				

First wife	ref			
Second Wife	0.837 (0.42 - 1.669)		0.453 (0.155 - 1.324)	
Third wife	3.321 (1.796 - 6.141)		4.881 (1.566 - 15.219)	
Fourth Wife	1.434 (0.711 - 2.894)	< 0.001***	1.177 (0.33 - 4.192)	< 0.001***
Fifth Wife	8 (1.376 - 46.523)		1.262 (0.121 - 13.132)	

Ref: the reference category, AOR: adjusted odds ratio from the multivariable logistic regression model, CI: confidence interval. p<0.05, **p<0.01, ***p<0.001

4.6.3 Association between early RH decisions and unintended pregnancy

Overall, the proportion of women who experienced unintended pregnancy among the respondents was 25.1% (95% CI: 20.9 – 29.74%). Table 4.12 shows that among respondents who had experienced unintended pregnancy, 72.45% (n=71) engaged in early sex. The chi-square test results in Table 4.12 shows a significant inverse relationship between age at first sex and experiencing unintended pregnancy (p=0.003).

Table 4.12 further show that 39.8% (n=39) of the respondents who married early had unintended pregnancy. The chi-square test of association between age at marriage and experiencing an unintended pregnancy showed no statistically significant relationship between early marriage with unintended pregnancy after controlling for other covariates (p=0.314). Also Table 4.12 81.6% (n=80) of the respondents who did not consent to their marriage partner experienced unintended pregnancy. The chi-square test of association however shows there is no significant association between consent to marriage partner and experience of unintended pregnancy (p> 0.641).

The study additionally examined other socio-demographic factors and their association with unintended pregnancy. From Table 4.12, community of residence of respondents, educational level of respondents, religion, employment status of women, hierarchical status of wife, respondents' age at fist sex, age at which the respondents married as well as number of wives of respondents' husbands had significant associations with unintended pregnancy (p<0.05).

Table 4. 12: Association between early RH decisions and ever experiencing unintended pregnancy

	Ever experienced unintended pregnancy				
	Yes	No	Total	χ^2	*p*-value
Early sex					
Yes	71(72.45)	155(53.08)	226(57.95)	11.29	0.001***
No	27(27.55)	137(46.92)	164(42.05)		
Age at first sex					
Below 16	71(72.45)	155(53.08)	226(57.95)		
16 - 25	24(24.49)	121(41.44)	145(37.18)		0.003**§
26 - 35	3(3.06)	16(5.48)	19(4.87)		
Early marriage					
Yes	39(39.80)	78(26.71)	117(30.00)	5.98	*0.014**
No	59(60.20)	214(73.29)	273(70.00)		
Age at marriage					
Before 18	78(26.71)	39(39.8)	117(30)		
18 - 25	173(59.25)	55(56.12)	228(58.46)		0.004**§
26 - 36	41(14.04)	4(4.08)	45(11.54)		
Consent to marriage Partner					
Yes	18(18.37)	60(20.55)	78(20.00)	0.22	0.641
No	80(81.63)	232(79.45)	312(80.00)		
Age (Years)					
15 – 19	33(33.67)	123(42.12)	156(40.00)		
20 – 29	44(44.90)	95(32.53)	139(35.64)	4.918	0.086
30 – 49	21(21.43)	74(25.34)	95(24.36)		
Communities					
Lanjeli/Zabzugu	56(57.14)	108(36.99)	164(42.05)		
Kukpaligu	14(14.29)	17(5.82)	31(7.95)	13.27	0.004**
Nakpachei	7(7.14)	98(33.56)	105(26.92)		
Gbungbalgu	21(21.43)	69(23.63)	90(23.08)		
Educational level					
No education	70(71.43)	228(78.08)	298(76.41)		
Primary	22(22.45)	28(9.59)	50(12.82)	12.51	0.002**
JHS/SHS	6(6.12)	36(12.33)	42(10.77)		
Religion					
Catholic	1(1.02)	16(5.48)	17(4.36)		
Protestant	11(11.22)	14(4.79)	25(6.41)		0.044* §
Pentecostal	12(12.24)	30(10.27)	42(10.77)		
Muslim	66(67.35)	194(66.44)	260(66.67)		
Traditionalist	8(8.16)	38(13.01)	46(11.79)		
Employment Status					
Unemployed	82(83.67)	178(60.96)	260(66.67)	17.04	< 0.001***
Self employed	16(16.33)	114(39.04)	130(33.33)		
Hierarchical status of wife					
First Wife	18(18.37)	92(31.62)	110(28.28)		
Second Wife	18(18.37)	86(29.55)	104(26.74)	30.67	< 0.001***
Third wife	42(42.86)	55(18.90)	97(24.94)		
Fourth Wife	16(16.33)	56(19.24)	72(18.51)		
Fifth Wife	4(4.08)	2(0.69)	6(1.54)		

*p<0.05,**p<0.01,***p<0.001 values were based on Pearson chi-square and Fishers exact test for categorical variables, and ǂ estimated p-value from the Welch t-test, § p-value estimate from Fisher's exact test. SD: Standard Deviation. (%) represent column percentage.

Women aged 16-25 and 26-35 years had less chance of experiencing unintended pregnancy compared to those below 16 years (P< 0.05, Table 4.13),

The multiple binary logistic regression model in Table 4.13 show that the odds of experiencing unintended pregnancy was 3.10 times higher among women who had sex before age 16 (early sex) compared to those who had sex between the ages of 16 to 25 after adjusting for other covariates (AOR: 3.096, 95% CI: 1.572 – 6.096). Similarly, respondents who had early sex (below 16years) were 3.98 times more likely to have ever experienced unintended pregnancy relative to those who experienced first sex within the ages of 26 to 35 years after adjusting for all other covariates (AOR: 3.984, 95% CI:0.827 – 19.231).

Also, the multivariable logistic regression analysis in Table 4.13 revealed that women from Nakpachei had 0.96 less chance of experiencing unintended pregnancy compared to those from Zabzugu (AOR: 0.04, 95% CI: 0.01 - 0.16). Respondents who had sex between the age of 26-35 years had 0.75 lesser odds of having unintended pregnancies compared to those who had early sex (16 to 25 years.

Protestants were 34.1 times more likely to have unintended pregnancies than catholic women (AOR: 95%CI: 2.87 – 405.10). Third wives also have about 6.6 times higher chance of having unintended pregnancies compared to first.

Table 4. 13: Effect of early RH decisions on ever experiencing unintended pregnancy

	Ever experienced unintended pregnancy			
	Unadjusted (95% CI)	*p*- value	Adjusted (95% CI)	*p*- value
Age at first sex				
Below 16	ref			
16 – 25	0.433 (0.257 - 0.729)	0.004**	0.323 (0.164 - 0.636)	
26 - 35	0.409 (0.116 - 1.45)		0.251 (0.052 - 1.209)	0.003**
Age at marriage				
Below 18	ref			
18 - 25	0.636 (0.39 - 1.038)	0.008**	0.87 (0.456 - 1.661)	
26 - 36	0.195 (0.065 - 0.584)		0.376 (0.107 - 1.326)	0.314
Consent to marriage Partner				
Yes	ref			
No	1.149 (0.64 - 2.063)	0.641	1.257 (0.56 - 2.822)	0.579
Age (years)				
15 – 19	ref		Ref	
20 – 29	1.726(1.021 – 2.918)		1.425 (0.665 - 3.057)	0.491
30 - 49	1.058(1.021 – 2.918)	0.088	0.913 (0.35 - 2.381)	
Communities				
Lanjeli/Zabzugu	ref			
Kukpaligu	1.588 (0.73 - 3.456)	<0.001***	0.665 (0.211 - 2.101)	
Nakpachei	0.138 (0.06 - 0.317)		0.04 (0.01 - 0.159)	< 0.001***
Gbungbalgu	0.587 (0.327 - 1.054)		0.229 (0.078 - 0.671)	
Educational level				
No education	ref			
Primary	2.559 (1.378 - 4.754)	0.003**	1.74 (0.737 - 4.112)	
JHS/SHS	0.543 (0.22 - 1.342)		0.285 (0.079 - 1.027)	0.0468*
Religion				
Catholic	ref			
Protestant	12.571 (1.437 - 110.009)		34.136 (2.876 - 405.103)	
Pentecostal	6.4 (0.762 - 53.764)		3.105 (0.239 - 40.335)	
Muslim	5.443 (0.708 - 41.841)		1.804 (0.166 - 19.643)	
Traditionalist	3.368 (0.389 - 29.189)	0.069	6.171 (0.462 - 82.382)	< 0.001***
Employment status				
Unemployed	ref			
Self employed	0.305 (0.17 - 0.547)	<0.001***	0.419 (0.149 - 1.18)	0.100
Hierarchical status of wife				
First wife	ref			
Second Wife	1.07 (0.523 - 2.19)		0.444 (0.144 - 1.369)	
Third wife	3.903 (2.047 - 7.442)	<0.001***	6.614 (1.958 - 22.343)	< 0.001***
Fourth Wife	1.46 (0.689 - 3.094)		0.935 (0.244 - 3.579)	
Fifth Wife	10.222 (1.74 - 60.07)		0.836 (0.075 - 9.373)	

ref: the reference category, AOR: adjusted odds ratio from the multivariable logistic regression model, CI: confidence interval. p<0.05, **p<0.01,***p<0.001

4.6.4 Association between early RH decisions and fertility

Table 4.14 shows that a total of 226 respondents, who had early sex, had an average of 4.38 children. The Welch test used to test the mean number of children (high fertility) on early sex had a p-value of 0.98, which is statistically not significant. Therefore, there is no significant difference in the mean number of children between respondents who had early sex and those who engaged in sex later in life.

Also, the 117 respondents who had engaged in early marriage had an average of 4.42 children. This result also shows there is no significant difference between the mean number of children among respondents who married early and those who married later (p= 0.780).

Similarly, the welch t-test show some significant relationship between consent to marriage partner and fertility (p= 0.035). The welch t-test results further show that the average number of children from a consented marriage spouse is significantly different from the average number of children from a non-consented marriage spouse (p= 0.035).

However, using the one-way ANOVA, Bonferroni and welch t-test in comparing the average number of children among the various age brackets show there was statistically significant difference in the average number of children per the age category (F=6.16, p=0.002) (see Table 4.14). It was also observed that the average number of children in all four communities of study were significantly different (F=5.25, p=0.002). Specifically, women from Lanjeli/Zabzugu and Kukpaliga (p=0.040) and Gbungbalga (p=0.004) communities varied significantly, which suggest that the average number of children was associated with community of residence.

The average number of children was also found to be significantly different among the various religious groups as well as among those who had a say in selecting their married partners. The religious affiliation of respondents was found to be significantly associated

with the average number of children and choice of marriage partner. From Table 4.14 respondents who were Pentecostals had a significant relationship (0.016*) with mean number of children as compared to respondent's from other religious affiliation of Catholics, Muslims and traditionalist.

The religious affiliation of a respondent determined respondent's involvement in the selection of marriage partners as observed in Table 4.14

Table 4.14: Comparing early RH decisions and mean number of children (Fertility)

	Mean number of children			
	mean	n (%)	F	*p*-value
Early sex				
Yes	4.38	226(57.95)	-0.10	0.918
No	4.40	164(42.05)		
Age at first sex				
Below 16	4.38	226(57.95)		
16 – 25	4.41	145(37.18)	0.04	0.963
26 – 35	4.32	19(4.87)		
Early marriage				
Yes	4.42	117(30.00)	0.28	0.780
No	4.37	273(70.00)		
Age at marriage				
Below 18	4.41	1.46(30.00)		
18 - 25	4.44	1.52(58.46)	1.58	0.208
26 - 36	4.02	1.22(4.87)		
Consent of Partner				
Yes	4.05	78(20.00)		
No	4.47	312(80.00)	-2.13	0.035* ǂ
Age (years)				
15 -19	4.24	156	6.16	0.002**
20 – 29	4.24	139		
30 to 49	4.84	95		
Communities				
Zabzugu	4.68	164(42.05)		
Kukpaligu	3.90	31(7.95)	5.25	0.0015**
Nakpachei	4.39	105(26.92)		
Gbungbalg	4.02	90(23.08)		
Employment status				
Unemployed	4.38	260(66.67)		
Self employed	4.40	130(33.33)	-0.19	0.85 ǂ
Educational level				
No education	4.39	298(76.41)		
Primary	4.16	50(12.82)	1.12	0.327
JHS/SHS	4.62	42(10.77)		
Religion				
Catholic	4.35	17(4.36)		
Protestant	3.64	25(6.41)		
Pentecostal	3.98	42(10.77)	3.10	0.016*
Muslim	4.48	260(66.67)		
Traditionalist	4.63	46(11.79)		
Hierarchical status of wife				
First Wife	4.69	110(28.28)		
Second Wife	4.15	104(26.74)		
Third wife	4.28	97(24.94)	2.21	0.067
Fourth Wife	4.43	72(18.51)		
Fifth Wife	3.83	6(1.54)		
Number of wives	-0.055	390(100)		0.280 ¥

*p<0.05,**p<0.01,***p<0.001 values were based on: One-way ANOVA test, ǂ the Welch t-test, **(%)** represent column percentage, ¥ spearman correlation

Table 4. 15: Effects of early RH decisions on mean number of children (Fertility).

	Mean number of children			
	Unadjusted PR (95% CI)	*p*- value	Adjusted PR(95% CI)	*p*- value
Age at first sex				
Below 16	Ref			
16 – 25	1.006 (0.937 – 1.080)	0.964	1.023 (0.954 - 1.098)	
26 – 35	0.985 (0.842-1.1153)		1.039 (0.884 - 1.22)	0.753
Age at marriage				
Below 18 year	Ref			
18 - 25 years	1.005 (0.933 – 1.083)	0.127	0.999 (0.93 - 1.073)	
26 - 36 years	0.910 (0.819 – 1.012)		0.914 (0.823 - 1.014)	0.167
Consent to marriage Partner				
Yes	ref			
No	0.099 (-0.023 -0.221)	0.039*	1.145 (1.037 - 1.265)	0.007**
Age (years)				
15 – 19	Ref			
20 – 29	1.00(0.924 – 1.079)		0.996 (0.91 - 1.091)	
30 – 49	1.141(1.051 – 1.239)	0.002**	1.092 (0.99 - 1.205)	0.085
Communities				
Lanjeli/Zabzugu	Ref			
Kukpaligu	0.835 (0.744 – 0.936)		0.838 (0.734 - 0.957)	
Nakpachei	0.939 (0.865 – 1.019)	< 0.001***	0.919 (0.809 - 1.045)	0.014*
Gbungbalgu	0.860 (0.790 – 0.936)		0.863 (0.768 - 0.969)	
Educational level				
No education	Ref			
Primary	0.947 (0.853 – 1.052)	0.213	0.944 (0.847 - 1.051)	
JHS/SHS	1.052 (0.970 – 1.139)		1.004 (0.917 - 1.1)	0.558
Religion				
Catholic	Ref			
Protestant	0.836 (0.665 – 1.051)		0.864 (0.666 - 1.121)	
Pentecostal	0.913 (0.787 – 1.061)	0.051	0.894 (0.735 - 1.087)	0.587
Muslim	1.030 (0.915 – 1.160)		0.956 (0.81 - 1.127)	
Traditionalist	1.064 (-0.203 -0.326)		0.981 (0.823 - 1.17)	
Employment status				
Unemployed	Ref			
Self employed	1.007 (0.938 – 1.081)	0.846	1.021 (0.909 - 1.147)	0.724
Hierarchical status of wife				
First wife	Ref			
Second Wife	0.886 (0.807 – 0.972)		0.95 (0.85 - 1.061)	
Third wife	0.912 (0.831 – 1.001)		0.949 (0.839 - 1.073)	
Fourth Wife	0.944 (0.867 – 1.028)	0.026*	0.949 (0.839 - 1.073)	0.480
Fifth Wife	0.817 (0.700 - 0.955)		0.794 (0.62 - 1.015)	

ref: the reference category, PR: Prevalence ratio based on Modified Poisson with robust standard error. CI: confidence interval. *p<0.05, **p<0.01, ***p<0.001

Socio-demographic factors associated with high fertility among respondents were also examined (see Table 4.14). The results from the spearman correlation regression analysis showed statistical evidence to conclude that community of origin and respondents consent

to marriage partner have a relationship with high fertility ($p<0.05$). Women who did not consent to their marriage partner had 1.14 times higher likelihood of having additional children compared to those who consented to their marriage partner. Women in Kukpaligu, Nakpachei and Gbungbala communities are 0.84, 0.94 and 0.86 (These figures unadjusted) times less likely to have new children compared to women in the Lanjeli/Zabzugu community respectively.

The average number of children was also found to be significantly different among the various religious groups as well as among those who had a say in selecting their married partners. The results from multivariable Poisson regression analysis showed that there was no enough statistical evidence to conclude that socio-demographic factors such as age at marriage, age at first sex, number of wives of respondent's partner and respondents having a say in choosing their married partner are related to fertility based on the number of children ($p>0.05$) (see table 4.8).

4.7 Chapter summary

The life course approach recognizes the important influence of reproductive health decisions on outcomes in later life. The study found evidence linking early RH decisions to RH outcomes in the adult lives of respondents. The study results show that early sex, early marriage and consent to marriage partner are significant predictors of high fertility, GBV, poor spousal communication and unintended pregnancy. However, some socio-demographic factors also predict early RH choices and associated outcomes. The implications of these findings are discussed in the next chapter.

CHAPTER FIVE

DISCUSSION

5.1 Introduction

This chapter presents a discussion on the results presented in the previous chapter. The discussion examines the results across the life course theory, highlights areas for further research and proffers suggestions for policy and programme implementation. The chapter is presented in five main headings: ssummary of results and discussion on reproductive health decisions; summary of results and discussion on reproductive health outcomes; summary of results and discussion on the association between negative early reproductive health decisions and reproductive health outcomes in later life; implications of the findings for women's reproductive health and life course theory; and strengths, contribution to knowledge, and limitations of the study.

5.2 Summary of results on reproductive health decisions

Findings from this study show that the prevalence of early sex, early marriage, and non-consensual marriage were 57.9%, 30.0% and 80.0% respectively. Negative early RH decision-making however differed from one group to the other. For instance, except Kukpaligu, over 50% of the respondents from Lanjeli/Zabzugu, Nakpachei and Gbungbalgu had sex before attaining age 16. Similarly, while a Pearson Chi-square test of independence showed no statistical association between community of residence and early sex ($X^2 = 4.619$, $p = 0.202$), about 52% of the respondents from Kukpaligu got married before age 18 while the majority of women from the other communities got married at age 18 and above. In relation to consent to marriage partner, all women from Gbungbalga reporting having no a say in the choice of their marriage partner compared to 25.6% of women who reported consenting to their marriage partner in Lanjeli. Indeed, a Pearson Chi-square test of independence showed significant statistical association between

community of residence and women's consent to their manage partner ($\chi^2 = 29.30$, $p < 0.001$), suggesting that community of residence in the study area affects whether a woman will have a say in the selection of her marriage partner.

5.2.1 Consistency with previous research

The results in a relation to the relatively high prevalence of early sexual debut and early marriage among respondents are consistent with a number of previous studies (GDHS, 2014; NORSAAC, 2015, Savannah Signature HealthCARE, 2016). Globally, early adolescent sexual activity remains a recurring public health issue (WHO, 2012). Age at sexual debut varies from place to place and among different individuals, and is often due to varying factors. Among Nigerian adolescents aged 15–19 years, a fifth of them were found to have initiated sex (18% males and 22% females) (Durowade et al.,2017). Among Jamaican adolescents, the mean age at sexual debut was noted to be 11 years among girls and 15 among boys (Ekundayo et al., 2007). Among adolescents aged 13–17 years in Ohio, USA, 8.6% admitted to having been sexually active before age 13 (Mazenga et al., 2009). This number escalated with increasing age-17.7% before 14 years, 31.2% before 15years, and 54.9% before 16 years and as high as 68.6% before 17 years. However, the prevalence of early sexual debut in this study appears to be much higher than what is reported in the 2014 GDHS, which suggest sexual debut in the northern region was around 17.5 years (GDHS, 2014).

Results on early marriage are also largely consistent with a number of previous studies and reports. According to UNICEF (2007) more than 60 million girls aged 20-24 worldwide had married before their 18th birthday. It is estimated that in developing countries, one in every three girls is married before reaching age 18 (UNFPA, 2016); and one in nine is married under age 15 (ICRW, 2013). The UNFPA (2016: para 6) estimates that 47,700 girls under 18 years "are married or are at risk of being married" every day.

With current trends, 150 million girls under 18 years will be married in the next decade (ICRW, 2013). An ICRW (2009) review found that rates of child marriage are highest in parts of Africa, with Niger, Mali and Chad having the highest rates of forced child marriage in the world, ranging from 71% to 77%. While the 30% prevalence of early marriage reported in this study is slightly lower than the 39% early marriage rate reported for Ghana (UNICEF, 2011; GDHS, 2014), the finding tie in with existing literature, which suggests that Ghana is among countries with high early and child marriage prevalence in the world (UNICEF, 2011; GDHS, 2014).

5.2.2 Discussion of results on reproductive health decisions

The relative high prevalence of early sex, early marriage, and non-consensual marriage reported in this study not only call for reflection on their consequences on women's reproductive health, but also requires serious explanation. Early sexual debut is not without its accompanying complications which may range from an increased incidence of multiple sexual partners, unprotected sex, risk for sexually transmitted diseases including HIV/AIDs, to unwanted and teenage pregnancies, and unsafe abortions (Durowade et al., 2017). Similarly, young girls who marry early often become pregnant while still adolescents, increasing the risk of complications in pregnancy and/or childbirth (ICRW, 2013). As shown in this study, negative health consequences of early marriage include the likelihood of experiencing poor spousal communication about contraceptives, high fertility, high unintended pregnancy and gender-based physical violence. These consequences have indeed been extensively documented in the literature (Santhya, 2010; Nour 2009; Santhya, 2010; Jain et al., 2007; Delprato et al., 2015). Indeed, the adverse consequences of early marriage are intergenerational such that children born to women affected by early marriage have higher mortality rates, are more likely to be born prematurely or with low birthweight and have poorer health and nutritional status (Raj et

al., 2010; Adhikari, 2003). While this phenomenon was investigated in this study, it would be important for future studies to examine the intergenerational consequences of early marriage.

Situating the results in context, there are numerous factors which can lead to a culture that accepts and encourages early RH decisions of early sex, early marriage and non-consensual marriages. As demonstrated by the qualitative results from this study, many of the early RH decisions studied in this thesis are largely influenced by cultural beliefs, poverty and societal pressure. They occur more frequently among girls who are the least educated, poorest and living in rural areas. These are typically characteristics of many parts of the Northern region where close to 70% of the population is rural and where educational attainments are much lower for women and young girls (GSS, 2013). While there is clearly no one factor that can be the ultimate reason for early RH decisions, research indicates that countries with a high index of child marriage are economically poor, fundamental in their religious beliefs, and are obstinate in upholding their culture (Walker, 2012). (Walker, 2012:233). Narratives from FGDs, in-depth and key informant interviews in this study clearly indicated that male-dominated power structures conflates with cultural and religious injunctions with customary practices to justify marrying off girls before puberty (see also Walker, 2012). For instance, the cultural practice of betrothal of young girls to older men is very common in the Northern region. Also the cultural practice of marriage exchange is common among the Konkombas, a possible reason why in the Kukpaligu and Gbungbalga communities, 100% of the respondents reported that their marriages were non-consensual marriages.

Indeed, many Ghanaian communities are still governed by a strong code of traditional and religious beliefs which may tend to encourage practices and mind-sets used to justify child marriage. For instance, the Ghanaian traditional setting and religious society both share

the opinion that pregnancy before marriage is a disgrace to the family (Alhassan, 2013). This culture therefore supports and endorses early marriage. Religious values are the source of moral prescriptions for many individuals; the teachings of some religious organizations are likely to play a role in the formation of individual attitudes, values and decisions. Both Christianity and Islam frown on premarital sex, a situation which can push young girls into early marriage to avoid the guilt of living in sin or being in a sinful relationship.

In addition, where there is also the belief that female are created for the sole purpose of serving men, early and non-consensual marriages are encouraged (UNICEF, 2011). Parents often believe that they may be able to improve their social status through their daughter's marriage, linking two families together. Similarly, parents may hold the belief that by marrying their daughter at an early age, she will be protected from sexual abuse, unwanted pregnancies and the risk of sexually transmitted infections. These explanatory or justificatory models were clearly highlighted in many of the quality results from this study.

Low enrolment in school may also be an underlying determinant of some of the early RH decisions documented in this study such as early marriage. For instance, girls who completed secondary or higher education were far less likely to fall victim to early marriage than those who had no education. Indeed, previous reports show that girls with no education are three times more likely to marry before the age of 18 than those with secondary or higher education (MICS 2011, UNFPA, 2012). As the northern region has the lowest level of school attendance of children of primary school going age (59.4%) as well as the lowest female literacy rate in the country (44.3% compared to national average of 61.4 %) (Santhya et al (2011)), it stands to reason that low female educational attainments could be at the heart of early and non-consensual marriages in the region.

Further, lack of law enforcement in the community and country could also explain the prevalence of some of the early RH decisions studied. The country's legal age for sex and marriage are 16 and 18 years respectively. These however are not adhered at least based on the evidence from this study. Some 80% of the respondents from this study engaged in early sex (i.e. sex before 16). While some of these early sexual experiences occur clandestinely including rape and coercive sex, the relatively high early sex and early marriage rates clearly suggests laxity in law enforcement. In particular, early marriages, which in many cases are child marriages, are easily identifiable crimes for which sanctions could be easily applied. However, it appears weak law enforcement coupled with lack of willingness on the parts of many communities to bastardise what they may deem as their culture, encourages the practice. This situation may partly explain the research results on early and non-consensual marriages in the northern region.

Poor parenting can also be blamed. A situation where parents fail to provide the basic and fundamental needs of their children can drive them into engaging in early sex. Also economic hardship and disparity tend to affect young women more than men. In the pursuit of these fundamental needs, some of these young women end up engaging in early sex or marriage to meet their basic needs. Familiarity with the husband before marriage may not be easy to gauge in cultures where communication between engaged couples prior to marriage is discouraged (Haberland et al., 2003). A situation that can affect spousal fertility communication. This is also evidenced by the research results, where 80% of the respondents entered into non-consensual marriages. Evidence from qualitative interviews also indicated that other reasons for non-consensual marriages include: strengthening extended family links; controlling unwanted behaviour and sexuality; preventing 'unsuitable' relationships; protecting and abiding by perceived cultural or religious norms; keeping the wealth in the extended family; dealing with the consequences

of pregnancy out of wedlock among others. Therefore, if practices such as early sex, early marriage and non-consensual marriages are to be addressed in the northern region, some of these factors will have to be addressed through targeted community dialogue and empowerment of young girls through formal education and skills development.

5.3 Summary of results on reproductive health outcomes

About 42.3% of respondents experienced poor spousal contraceptive communication, while the prevalence of GBV among respondents was 24.7%. Similarly, the proportion of women who have ever experienced unintended pregnancy was 25.1%, while 44.9% of the respondents were classified into the high fertility bracket.

5.3.1 Consistency with previous research

Many of the findings in relation to RH outcomes are consistent with previous research and reports. For instance, the 2014 GDHS reports indicate that the northern region had a fertility of 6.6 children per woman compared to the national figure of 4.2. The results from this study clearly aligns well with the 2014 GDHS results, and suggest the northern region as one of the places where fertility is still very high. The results in relation to gender-based violence are also similar to previous studies. For instance, DOVVSU (2016) observed that at least one in three women (approximately 37% of women) in Ghana has experienced some form of gender-based abuse during her lifetime. Although the prevalence of gender-based violence in this study (24.7%) is a little lower than the 33% estimate for Ghana, the results highlight GBV as an important public health problem nevertheless.

Also, in developing countries, more than one-third of all pregnancies are considered unintended and about 19% will end up in abortion, which are most often unsafe accounting for 13% of all maternal death globally (Duflo, 2012). The 25.1% rate of unintended pregnancy reported in this study appears to be in line with global statistics.

The rate in this study is however much lower than the over 40% of pregnancies estimated to be unintended in Kenya (Mumah et al., 2014).

5.3.2 Discussion of results on reproductive health outcomes

The findings in relation of RH outcomes among respondents also deserve further reflection. These reproductive health outcomes could be explained by a number of factors, including socio-demographic, cultural and health system or policy factors.

To begin with, fertility is a function of several factors including infant mortality and the opportunity for child bearing. The northern region currently has the highest rate of under-five mortality (124 probable deaths per 1,000 live births), double the rate of Greater Accra (UNICEF, 2014). This situation could partly explain the high fertility rate among 45% of the respondents. This is because, as more infants die, couples are likely to want to have more children to replace lost ones. For this reason, demographers have often noted that the beginning point of good population policies to lower fertility rates is to address infant mortality. This suggests that addressing the high fertility rate in the northern region may require first reducing infant mortality rates to assure couples of the survival of their children.

But high fertility could also be related to limited modern contraceptive use. According to the 2014 GDHS report, the Northern reported lowest (11%) use of current use of any contraceptive method. This could directly affect not just fertility but also unintended pregnancy outcomes. Apart from constraining cultural and religious factors, inadequate health infrastructure and personnel can also inform the RH outcomes results of the study such as fertility and unintended pregnancy. The geographical location of study districts of Zabzugu and Yendi are largely underserved rural areas. The northern region as at 2015 had only 1 teaching hospital, 12 hospitals, 83 health centres, 4 polyclinics, and 57 clinics and CHPS compound serving a population of about 2,860,449 (GHS, 2015). This situation

could easily result lack of access to health facilities and family planning services given the vast geographical spread of the region. As Eliason et al. (2014) explained, the high rate of unintended pregnancies in Sub-Saharan Africa, including Ghana, attests to poor access to reproductive health care especially family planning, inadequate reproductive health rights and low empowerment of women Additional reasons explaining RH outcomes could be women's lack of knowledge on contraception (Prata et. al, 2013). As most first sexual initiations were done in marital settings and are mostly done without the use of a condom or any other method of contraception (Henry & Fayorsey, 2002), unintended pregnancy could easily occur. Marrying early is often associated with a lack of agency for girls, including access to family planning that can help delay or reduce births if women so desire. This could explain high fertility results. Overall, a high number of unintended pregnancies may stem largely from an unmet need for contraceptives. This is more likely given the high level of illiteracy in the northern region (GSS, 2013). Indeed, female education alone is believed to influence RH outcomes of fertility, GBV, unintended pregnancy and spousal fertility communication in significantly dramatic ways.

Unintended pregnancy can be explained by age. As women grow older, they do not want any more children, but due to unmet need for contraceptives these women experience unintended pregnancies (Ahorlu et al., 2015). Studies conducted in Ecuador, Iran, Nigeria, Vietnam, China, and Bangladesh among married pregnant women, who were in reproductive age group, showed that as women's age advances, the likelihood of unintended pregnancy increases (Sumera Aziz Ali et al., 2016).

The place of women in society revolves around their reproductive capacities, particularly their ability to bear male children. In most cases, the organization of kinship structure around patrilines, property, ownership, and right in most societies in Northern Ghana often marginalizes women (Ganle, 2014). Owing to patrilineal descent women often face

familial and community pressure to give birth to a son. This pressure for a son can also explain the fertility and unintended pregnancy results. This quest can also predispose women to gender based violence and poor spousal fertility communication

Again, social status and identities of women in most Sub-Saharan countries are tied to motherhood and childlessness is highly stigmatized. This therefore prevents most married adolescents from using any form of contraception (Hindin et al, 2009). Also most countries in Sub-Saharan countries expect a woman who gets married to start having children right away. This reason could also account for high fertility and unintended pregnancies in this study. Non-consensual marriage and early sex could be linked to high fertility and unintended pregnancy due to the possibility of longer reproductive years.

Also high fertility could be explained by breakdown of traditional fertility regulating methods such as postpartum sexual abstinence.

Lack of power and decision-making autonomy can also explain RH outcomes among respondents. Most respondent's first sex experience was in a marital setting, a situation which could explain unintended pregnancy because young women may be able resist or negotiate for safe sex with spouses due to lack of RH decisions power. Indeed, the World Health Organization identifies that traditional gender norms that support male superiority and entitlement, social norms that tolerate or justify violence against women, and weak community sanctions against perpetrators, are important factors that underlie the experience of gender-based violence. Low household income has also been shown to heighten the probability of gender based violence (Behrman et al, 2017). As shown in the 2010 PHC report, more than 7 in 10 residents in northern region are in the lowest wealth quintile. The 2014 GDHS also reports that only 2% of the population in the northern region is in the high wealth quintile. Women are known to be particularly poorer. This

therefore creates a conducive environment for gender-based violence again women to be perpetrated.

5.4 Summary of results on the association between early reproductive health decisions and outcomes

The study revealed that 64% (n=105) of respondents who engaged in early sex had experienced poor spousal communication. Women who had early sex were significantly more likely to experience GBV ($p< 0.001$). About 85.5% (n=47) of the women who had early sex experienced GBV. Respondent who engaged in early sex were also more likely to report experiencing unintended pregnancy.

Age at marriage was predictive of poor spousal communication ($p=0.021$), while women who had married later (18+) were less likely than those who had married early to have experienced GBV, Unintended pregnancy, poor spousal communication and high fertility. Specifically, women who married before age 18 (early marriage) were 3.27 times more likely to experience poor spousal communication relative to those who married between the age bracket of 26 - 36 after controlling for other covariates (AOR: 3.268, 95%CI: 0.832 – 9.709).

About 37.4% of the respondents who had experienced GBV married early, while women with primary level education were 2.3 times less likely to experience GBV compared to those without any formal education. About 83.2% of the respondents who experienced GBV had not consented to their marriage partner. Some 30.5% of women, who consented to their marriage partner experienced poor spousal communication, compared 69.5% of women who did not consent to their marriage partner and experienced poor spousal communication. Hierarchical marital status of a wife was significantly predictive of

spousal communication. Fourth Wives were more likely than other wives to experience good spousal communication (P<0.001).

Finally, women who did not consent to their marriage partner were 1.14 times more likely to want to have additional children compared to those who consented to their marriage partner.

5.4.1 Consistency with previous research

A number of the findings in relation to the association between early RH decisions and RH outcomes in adult life are consistent with a number of previous studies. Ankomah et al. (2011) found that early sexual intercourse may predispose a woman to a long period of childbearing hence possibly leading to an increase in her fertility. Speizer et al. (2013) also found that the earlier a woman initiates sexual activity the longer she stays in the reproductive years, hence increasing her fertility level. Other studies also suggest that women who married as children face a higher fertility burden early in their reproductive years (Santhya et al. 2010). Studies of married South Asian women between 20 and 24 years of age found that those married before their eighteenth birthday were less likely to use any form of contraception prior to their first birth and had higher total fertility relative to their peers who married at later ages (Raj et al. 2009; Santhya et al. 2010; Godha et al. 2013). They also report more unwanted pregnancies, miscarriages, stillbirths, and abortions (Raj et al. 2009; Santhya et al. 2010; Hotchkiss et al., 2016).

Also evidence suggests that women married as children report more unwanted pregnancies, miscarriages, stillbirths, and abortions (Raj et al. 2009; Santhya et al. 2010; Hotchkiss et al., 2016) Studies in a number of south Asian countries, including Bangladesh, India and Nepal, show a direct association between early marriage and unintended pregnancy, irrespective of the measure of unintended pregnancy or the study sample used in the analysis

Consistent with results from this study, studies have found that, women who marry early are more vulnerable to sexual and gender based violence (Raj, et al., 2010; Santhya et al. 2010). Girls who married early are more likely than those who marry at a later age to experience sexual violence (UNICEF, 2012). A survey in India found that girls who married before the age of 18 were twice as likely to report being physically abused as opposed to those who married later (ICRW, 2013).

In general, findings in relation to the links between negative early RH decisions and choices are consistent with a number of studies

5.4.2 Discussions of results on the association between early reproductive health decisions and outcomes

Results on the association between early marriages can also be explained in a number of ways. Younger age at first marriage connotes early exposure to regular sexual intercourse which will ultimately translate into early childbearing in the absence of effective contraceptive (WHO, 2011). This appears to explain the observed statistical relationship between early marriage and high fertility and unintended pregnancy in this study. However, it has been argued that the association between early sex and childbearing may reflect the disadvantaged backgrounds of those adolescents who become parents rather than any negative effects due to the timing of the birth itself (Delprato et al, 2015). In this study however, the evidence seems to support the view that early marriage leads to early exposure to regular sexual intercourse may translate into early childbearing in the absence of effective contraceptive.

Additionally, most women face gender domestic violence because of their position of powerlessness and dependency within the marriage. Girls who marry early are particularly at risk of violence from their partners or their partners' families. They are consistently more likely to be beaten or threatened by their husbands than girls who marry

later. The greater the age difference between girls and their husbands, the more likely they are to experience intimate partner violence. Coupled with social norms that may condone acceptability of violence against women such as wife-beating, a husband may use force on his wife due to the tradition that prescribes that husbands should be in control. Also the dynamics of deference to elders and expectation and acceptance of harsh treatment by older women being the normative way may explain why women who were married younger than age 18 were more likely to have experienced and accept GBV. Additionally, most women face gender-based violence because of their position of powerlessness and dependency within the marriage. Girls who marry early are particularly at risk of violence from their partners or their partners' families. Another reason could be the high level of illiteracy in the northern region. Female education is believed to influence family size decisions both by reducing desired family size and increasing women's ability to implement their reproductive preferences

The literature holds differing opinions on the relationship between education and sexual violence. The World Report on Violence and Health (Krug et al., 2002) cites South African and Zimbabwean studies that show a correlation between higher levels of female education and increased vulnerability to sexual violence. The authors reason that female empowerment is accompanied by a resistance by women to patriarchal norms, which in turn provokes men to violence in an attempt to regain control (Jewkes et al., 2002). However, they suggest that female empowerment confers greater risk of physical violence only up to a certain level, after which it confers protection (Shai et al, 2012). This theory is supported by evidence from the WHO multi-country study, which found that the protective effect of education started only when women's education progressed beyond secondary school (Sumera et al, 2016). These findings reaffirm the sexual gender inequality faced by women. In most early marriages, the man thinks it is his right as

husband to consummate the marriage and the wife must submit. Ghanaian marriages are structurally patriarchal in nature: men as super ordinates and women as subordinates in every aspect of the union with sex not being an exception (Adomako Ampofo, 2008; Cole et al. 2007).

Several reasons may also be assigned to results on the association between consent to marriage partner and RH outcomes. In poor communities where non-consensual marriages are highly practiced, economic and educational opportunities available for girls are few and the way for families to protect economic wellbeing is to marry off their daughters quickly. Girls who marry young are often given very little or no power over choosing whom they marry, and become women with little autonomy. Women who marry early are consistently more likely to be beaten or threatened by their husbands than girls who marry later. A situation that could ferment conflict in marriage and subsequent GBV. Indeed, commoditisation of women is central to the customary endorsement and certification of a marriage contract. Therefore, price tagged brides sold out to prospective husbands in the form of bride price; a sociocultural value has culminated into the supposed ownership of wives (Archampong & Baidoo, 2011; Ofei-Aboagye, 1994). Implicitly, wives thereby become their husbands' acquired sexual property among others upon marriage, and bride price payment serves as a buffer in addition to the certificate/marital license (Archampong & Baidoo, 2011; Awedoba, 2005,).

Non-consensual marriages focus on keeping tradition and culture alive. This sadly means that women do not stray from their cultural background. Non-consensual marriages are usually among two persons who hardly know themselves and so can account for poor spousal communication as indicated by the fact that 80% of women did not consent to their marriages and were consequently at increased risks of GBV and poor spousal communication. Familiarity with the husband before marriage may not be easy to gauge in

cultures where communication between engaged couples prior to marriage is discouraged (Hamid, 2011). This may explain the link between non-consensual marriage and poor spousal communication in this study. Also most respondents were married to men much older than themselves, which could also affect spousal communication due to the cultural requirements of respect the elderly. There are virtually no common grounds of likes and interest for discussion. Dating is taken out of the equation in non-consensual marriages which can also lead to identity loss

Hierarchical position of women also affects spousal relationship. This could probably explain the good spousal relationship with fourth wives since they last entered marriage relationship. Fourth wives enjoyed good communication probably because they needed to get to know each other. The only means of getting connected and knowing each other was through communication and this might explain the research results related to the experience of good spousal communication among fourth wives compared to first or second or third wives.

5.5 Implication of results for women's reproductive health and the life course theory

In reflecting on the methodological discussions, contextual factors, and empirical results from this study, a major conclusion is that unless social dynamics, contexts and realities as understood or experienced by research participants are well taken into consideration in policy discourses and practice, initiatives on early RH decisions and related outcomes may only remain rhetoric. Unlike western marriages, which are often unambiguously dated by a ceremony, the signing of legal documents, and civil registration, marriage in Ghana and especially in the northern region is often a process consisting of multiple stages including legitimized sexual relations, cohabitation, and ceremonies. The process can be lengthy and the various stages occur in different sequences across ethnic and social groups (van de

Walle and Meekers 1994; Locoh 1994; Arnaldo 2004). If several events are required to solidify a union, it may be unclear when the union was formalized. This situation makes measuring age at marriage in Ghana and in study area a difficult task.

Additionally, in Ghana social and cultural norms make the national minimum age of marriage very difficult to enforce. The law recognizes three types of marriages: customary, religious and civil marriage. Often the minimum age of marriage is only applicable in civil marriages. Most Islamic marriages end with religious rituals. Legal registrations of marriages are not enforced and couples do not feel obliged to do so. Unlike in other countries that have a database of all registered marriages with ages clearly documented, this database does not exist for all study communities, which may make law enforcement in relation to early marriage difficult.

Drawing on the reproductive and life course experiences of women and girls from the northern region provides a critical analysis of the intersecting factors of inequalities that result from inherent gender roles and power relations differentials. These inequalities are the result of the lack of decision-making power, the lack of freedom of choice, the restricted mobility of girls, poverty and cultural beliefs (Peterson et al,2015). Women's low social status in several settings in the northern region contributes to limited power to enjoy RH rights. The lack of education as well as financial resources among rural women particularly affects their decision-making power. The health of women in these communities is essentially in the hands of the men, who due to the availability of financial resources and the power they possess as community heads, political heads or indeed as husbands and fathers often wield enormous power over many aspects of women's lives and can decide the kind of attention to give a woman's health. Lack of women's decision-making power can negatively affect their health. When a woman can plan her family, she can plan the rest of her life. When she is healthy, she can be more productive. And when

her reproductive rights are promoted and protected, she has freedom to participate fully and equally in society

This lack of power and decision-making autonomy can have a significant influence on economic decisions as well as other life course variables and outcomes. Only through her participation and voice in decision-making can a girl's or woman's aspirations for her children be realized. Women forced silence on issues of reproductive health decisions as observed in the northern region on matters of sex, timing, spacing, and number of children pertaining to her marriage affects the lives of her children before they are even born. The impacts carry through her children's upbringing and into their adult lives, family formation, and the generation they, in turn, raise. This situation clearly reinforces inequitable gender norms among the next generation, which can result in reduced community investments in social services and programmes that might increase women's chances of success in the future.

Ultimately, the inequalities result in unfavorable conditions that lead to the migration of girls from the North of Ghana to the South in search of economic opportunities. Besides, a lack of these two fundamental rights results in numerous other issues that not only directly affect a woman's livelihood and that of her family but also the community and economic growth of a society. Additionally, as a woman from the northern region, I have witnessed how being female presents challenges in the attainment of RH and access to healthcare. I believe that these challenges mainly originate in the inferior positioning of women in society.

An educated and healthy woman is a key contributor to the community and national development; however, women in the northern region face challenges in these two areas due to gender inequalities. Previous research as well as findings from this study shows that geographical settings, economic status, and social and cultural structures are factors

reinforcing unbalanced gender roles that contribute to women and girls' limited access to education and healthcare and effective participation in RH decisions and later RH outcomes. The central argument from all of this therefore is that the deeply rooted inequalities that affect women and girls' access to education and healthcare and effective participation in RH decisions are a result of inherent differences in gender roles and power relations that emanate from male-dominated social and cultural structures.

Finally, the results and discussions so far clearly suggest that the life course approach to sexual and reproductive health has implications for public health education, policy, practice and research. Since sexual and reproductive health remains the principal cause of ill health and death of women of childbearing age, especially in developing countries (UNFPA, 2013), there is urgent need for public health education and service provision to focus on the reproductive health needs of adolescent mothers, which could help achieve better RH outcomes in adult life and contribute to attainment of the SDGs.

5.6 Strengths, contribution to knowledge, and study limitations

This study is about the first to link early RH decisions to future RH experiences using the life course theory in the northern region. This study has generated new evidence linking early RH decisions to RH outcomes in the adult lives. In addition, the study admittedly, the study has demonstrated how a life course perspective could be applied to study how early RH decisions affect RH outcomes in later life. Findings from this study clearly show support for the life course theoretical framework used to guide the conduct of this study, and suggest that women who experience early negative RH decisions also are likely to experience negative RH outcomes in later life. Overall, the study extends understanding on early RH decisions and their associated reproductive health outcomes. This new knowledge could potentially form the basis for health policy interventions as well as

further research extending the life course perspective into other aspects of women's reproductive health.

Despite the above contributions, the study has some limitations. First, measuring some of the independent and dependent variables such as age at marriage in Ghana and in study area is a challenge. Unlike Western marriages, which are often unambiguously dated by signing of legal documents, the case in Ghana is different. Marriage in Ghana is a process consisting of multiple stages including legitimized sexual relations, cohabitation, and actual marriage ceremonies of engagements and wedding ceremonies. The process is not only lengthy but also varies across different ethnic and social groups. The series and sequence of events required to solidify a union, makes it unclear as to when the union was formalised.

Also the data collected are cross-sectional. As a result, it is not possible to draw causal connections between early exposure to RH decisions and subsequent RH outcomes. Linked to the limitations of the cross-sectional nature of the study design is the fact that the study used retrospective data requiring women to recollect their previous RH experiences. This situation may affect recall bias because the event of interest is across the life course of five years the minimum.

Age misreporting could also be a major limitation to this study. Older women might suffer recall bias and might have forgotten the time they had their first intercourse or even married. Other women may have misreported their ages due to religious doctrines that prohibit having sexual intercourse out of marriage.

Early RH decisions such as early sex are sensitive, while early and non-consensual marriages are not only sensitive but also potentially criminal. It is therefore possible for respondents to under-report their occurrence. Questions on age at marriage and sex might

have also elicit wrong response because some women might have felt embarrassed by the fact that they may have initiated sexual intercourse earlier or might have forgotten the age that they had their first sexual intercourse. Also, as the data are based on self-reported sexual behaviour, risk factors that precede early first sex are an important area for further research which was not considered in this study. Misreporting of sexual behaviour is possible, particularly among women who might not want to be stigmatised. It is equally important to acknowledge that the study's conclusions are limited to married women (currently married). Therefore, the results may not apply to never-married, divorced/separated/widowed and cohabiting women.

Also, data regarding RH outcomes were gathered from women's self-reported information. Besides, to escape from social criticism and for prestige issue, many women could have provided inaccurate information which might not necessarily be a true reflection of happenings. This may likely lead to gross under or overestimates, which can undermine the true prevalence of RH outcomes in this study. A more fundamental limitation is the possibility of under-reporting of RH outcomes of unintended pregnancy and GBV by respondents, given their culturally sensitive nature. All societies experience violence, but its context – the circumstances in which it occurs, its nature and its social acceptability – varies greatly from one setting to another.

Despite these limitations the study has provides valuable insight into the scope and scale and predictors of early RH decisions which can be beneficial to ongoing interventions. The result also provides a strong foundation for the development of future research.

5.7 Chapter summary

The discussion of results in this chapter clearly shows the importance of focusing on early RH decisions of women if RH outcomes in adult life are to be improved. The findings and

discussions are also relevant in the context of poverty reduction which fits into the Ghana Sustainable Development Agenda. As sexual and reproductive ill-health issues continue to threaten national and global development targets, it is essential to make positive connections between sexual and reproductive health and life course development. Without access to comprehensive sexual and reproductive health information and services especially during early life, women are more likely to have poor RH outcomes in later life.

CHAPTER SIX

SUMMARY, CONCLUSION AND RECOMMENDATION

Chapter six presents an overview of the entire thesis, summary of findings, conclusions of the study, suggest recommendations based on findings and report limitations of the study. The summary and recommendations sections are structured and presented along two main headings-reproductive health decisions and reproductive health outcomes.

6.1 Summary

Women's ability to make their own reproductive health decisions are essential for good reproductive health. The study investigated early reproductive health decisions of women and their associated reproductive health outcomes. The study found evidence linking early RH decisions on RH outcomes in the adult lives of respondents.

It was found that age at first sex, age at first marriage and consent to marriage partner were associated with spousal communication ($p<0.05$). Age at first sex was associated with gender based violence and unintended pregnancy ($p<0.05$). None of the three reproductive health decisions studied was associated with fertility (mean number of children) ($p>0.05$).

6.1.1 Summary of Socio- demographic results

The socio-demographic results revealed that about 24.4 % of the women were aged 31 years and above.. Out of respondents interviewed 76.4% had no education and 66.7% of were Muslims. Close to 46.7% of these respondents had between 4-6 mean numbers of children. Out of the total respondents only 28.2% were first were first wives.

6.1.2 Summary of results on reproductive health decisions

The study revealed that prevalence of early sex and early marriage were 57.9% (95%CI: 52.96 – 62.78%). and 30.0% respectively. However the prevalence of non-consensual marriage among the women was 80.0% (95%CI: 75.71 – 83.69%).

6.1.3 Summary of results on reproductive health outcomes

Prevalence of communication on spousal fertility was 42.27%. . The prevalence of GBV amongst women in the northern region is 24.7% (95% CI: 23.2 – 32.1%), also the proportion of women who had ever experienced unintended pregnancy was 25.1% (95% CI: 21.1 – 29.7%). About 44.9% (95%CI: 50.14- 60.02%). of respondents were classified as having high fertility.

6.1.3.1 Summary of results on association between early sex and RH outcome

About 64% (n=105) of respondents who engaged in early sex had experienced poor spousal communication. Respondents age at marriage was predictive of poor spousal communication (p=0.021). The study established a significant association between respondent experiencing GBV and early sex with a p-value of 0.001. Almost 72.45% (n=71) respondent who had experienced unintended pregnancy, engaged in early sex.

6.1.3.2 Summary of results on association between early marriage and RH outcomes

The study found that women who had married later (18+) were less likely to have experienced GBV, unintended pregnancy, communication on spousal fertility and fertility challenges than those who had married late,

The study revealed that 64% (n=105) of respondents who had experienced poor spousal communication engaged in early sex. Then again women who married before age 18 (early marriage) were 3.27 times more likely to experience poor communication on spousal fertility relative to those who married between the age bracket of 26 - 36 after

controlling for other covariates (AOR: 3.268, 95%CI: 0.832 – 9.709) . Additionally about 37.38% (n=40) of the respondents who had experienced GBV married early and 83.18% of respondents who experienced GBV had not consented to their marriage partner.

Women who married before age 18 (early marriage) were 2.841 times more likely to have ever experienced GBV relative to those who married between 26 to 36 years. Almost 83.18% of respondents who experienced GBV had not consented to their marriage partner. Close to 39.80% (n=39) of the respondents who married early had unintended pregnancy. Also 81.63% (n=80) of the respondents who did not consent to their marriage partner experienced unintended pregnancy.

6.1.3.3 Summary of results on association between consent of marriage and RH outcomes

Among women who did not consent to their marriage partner 114(69.511) experienced poor spousal fertility communication. The odds of experiencing good spousal communication were 7.14 times higher among women who consented to their marriage partner compared to those who had no say in choosing their married partners. Additionally 83.18% of respondents who experienced GBV had not consented to their marriage partner. Women who did not consent to their marriage partner had 1.14 times higher likelihood of having additional children compared to those who consented to their marriage partner.

6.2 Conclusions

The study adopted the life course theory to examine the relationship between early RH decisions and related outcomes of women. The study findings show support for the life course theory that women who engaged in early sex were more likely than those who engaged in sex later in life to have experienced poor spousal communication.

The life course approach also recognizes the important influence of reproductive health decisions on outcomes in later life. The study observed that early Reproductive Health (RH) decisions across the life course were associated with reduced levels of autonomous decision making and self-efficacy. Women who experience early negative RH decisions also experienced negative RH outcomes in later life. The study found evidence linking early RH decisions to RH outcomes in the adult lives of respondents.

In reflecting on the observations made in this study, a major conclusion is that unless social dynamics, contexts and realities as understood or experienced by research participants are well taken into consideration in policy discourses and practice, initiatives on early RH decisions and related outcomes may only remain a rhetoric.

Unlike western marriages, which are often unambiguously dated by a ceremony, the signing of legal documents, and civil registration, marriage in Ghana is often described as a process consisting of multiple stages including legitimized sexual relations, cohabitation, and ceremonies. The process can be lengthy and the various stages occur in different sequences across ethnic and social groups (van de Walle and Meekers 1994; Locoh 1994; Arnaldo 2004). If several events are required to solidify a union, it may be unclear when the union was formalized. A situation that makes measuring age at marriage in Ghana and study area a difficult task.

Additionally, in Ghana social and cultural norms make the national minimum age of marriage very difficult to enforce. The law recognizes three types of marriages: customary, religious and civil marriage. Often the minimum age of marriage is only applicable in civil marriages. Most Islamic marriages ends with religious rituals. Legal registrations of marriages are not enforced and couples do not feel obliged to do so.

Unlike in other some countries that have a database of all registered marriages with ages clearly documented. This database doesn't exist for all study communities

Drawing on the gender experiences of women and girls from the northern region provides a critical analysis of the intersecting factors of inequalities that result from inherent gender roles and power relations that exist in regions social and cultural structures. These inequalities are the result of the lack of decision-making power, the lack of freedom of choice, the restricted mobility of girls, poverty and cultural beliefs (Opare, 2015; Porter et al., 2011).

Women's low social status in several settings in the northern region contributes to limited power to enjoy RH rights. However, the lack of education as well as financial resources among rural women affects their decision-making power. The health of women in these communities is essentially in the hands of the men, who due to the availability of financial resources and the power they possess as community heads, political heads or indeed as husbands and fathers often wield enormous power over many aspects of women's lives and can decide the kind of attention to give a woman's health. Lack of women's decision-making power can negatively affect their health. When a woman can plan her family, she can plan the rest of her life. When she is healthy, she can be more productive. And when her reproductive rights are promoted and protected, she has freedom to participate fully and equally in society

This lack of power and decision-making autonomy can have a significant influence on economic decisions. Only through her participation and voice in decision-making can a girl's or woman's aspirations for her children be realized. Women forced silence on issues of reproductive health decisions as observed in the northern region on matters of sex, timing, spacing, and number of children pertaining to her marriage affects the lives of her children before they are even born. The impacts carry through her children's upbringing

and into their adult lives, family formation, and the generation they, in turn, raise. A situation that reinforces inequitable gender norms among the next generation, which can result in reduced community investments in social services and programs that might women's chances of success in the future.

Ultimately, the inequalities result in unfavorable conditions that lead to the migration of girls from the North of Ghana to the South in search of economic opportunities. Besides, a lack of these two fundamental rights results in numerous other issues that not only directly affect a woman's livelihood and that of her family but also the community and economic growth of a society. Additionally, as a woman from the northern region, I have witnessed how being female presents challenges in the attainment of RH and access to healthcare. I believe that these challenges mainly originate in the inferior positioning of women in society.

An educated and healthy woman is a key contributor to the community and national development; however, women in the northern region face challenges in these two areas due to gender inequalities Research shows that geographical settings, economic status, and social and cultural structures are factors reinforcing unbalanced gender roles that contribute to the rural women and girls' limited access to education and healthcare and effective participation in RH decisions affecting her own life

Thus, the central argument is that the deeply rooted inequalities that affect women and girls' access to education and healthcare and effective participation on RH decisions are a result of inherent gender roles and power relations that emanate from the male-dominated social and cultural structures.

The researcher through this thesis states that an educated woman has a positive influence on access to healthcare, effective participation on RH decisions and on the education of her children. She is also more able to alleviate poverty and manage health issues,

6.3 Recommendations

Adopting the life-course approach provides a more comprehensive vision of RH decisions, its determinants and provides opportunities to intervene to improve health in later life. The life course theory examines and highlights the importance of services that focus on the needs of the individuals/groups in each stage of life. The approach also examines the fundamental causes behind early RH decisions and ensures actions would have the most impact on RH outcomes. Interventions and recommendations are proposed across the life-course to effectively reduce the burden of early negative RH decisions. The following recommendations are made based on the findings

6.3.1 Reproductive health decisions

Adolescence is a time of great change both physically and emotionally. It is a very crucial time for young people to have quality education and skills development around negotiating personal relationships and SRH choices. It is the stage for age appropriate universal education on personal health, social and economic (PHSE) and sexual and relationship education (SRE). Also demands supportive social and emotional environment in which to grow and develop.

Education is essential for girls to be able to make informed decisions about their sexual health and well-being. The most common high-quality strategies focused to prevent early marriage focus on interventions are to ensure that school attendance is more advantageous for girls' and families. Government, NGOs and all stakeholders promoting women's

agenda should support girls in married settings with options for schooling, employment and livelihood skills, sexual and reproductive health information and services.

The relationship between education and early married has been established in literature that the school remains a pivotal space for both the educational attainment and social development of children. Age appropriate universal education on personal health, social and economic (PHSE) and sexual and relationship education (SRE) should be thought at all levels of primary, JHS and SHS to build knowledge, resilience and empower girls to resist early RH decisions.

The school remains a pivotal space for both the educational attainment and social development of children. Government, NGOs, CSOs and CBOs should intensify and provide age appropriate universal education on personal health, social and economic (PHSE) and sexual and relationship education (SRE).

Sex education should be intensified at all levels by the Ghana health service, ministry of education (MoE}, NGOs, CBOs and CSOs.

- Prioritize and scale up youth sexual and RH programmes and include comprehensive sexuality education that teaches young people especially girls with knowledge, tools and services to make informed decisions about their bodies and live a full, healthy and productive life.
- Reproductive health modules and programmes should be reviewed so as to offer accurate, comprehensive information and build skills for negotiating sexual behaviors.
- Advocacy, counselling services and mental health units of the GHS should be resourced, and capacitated to provide women with the need psycho-social counselling support

The findings revealed that socio-cultural factors influence RH decisions that women make. The ministry of health, Ghana education service and stakeholders in reproductive health should work with the ministry of chieftaincy affairs and provide appropriate RH education and also resource the institution at all levels to advocate against RH decisions. The chieftaincy institution should also be supported to pass and enforce traditional laws on RH decisions of women.

6.3.2 Reproductive health outcomes

Women and adolescents require access to age-appropriate and culturally sensitive reproductive health care services, including emergency contraception. Health workers in both public and private health facilities should be capacitated and resourced by the MoH and GHS to provide comprehensive SRH services including contraceptive services to adolescents. The CHPS compounds which serves most rural women should also be well resourced trained to provide culturally sensitive reproductive health care services. The GHS and MoH should ensure that hard rural communities of the northern region do not stock out of reproductive health commodities.

To improved family-planning education and access, government, NGOs and all stakeholders promoting women's agenda should focus on developing re-integration services for young mothers in education and social sector. Sexual and reproductive health services should be made available and affordable for working-age adults to bridge contraception, pregnancy, termination of pregnancy and diagnosis and treatment of STIs

The traditional and religious institutions should be lobbied, capacitated and resourced to use their various platforms to advocate on the importance of contraceptives. This would go a long way to reduce fertility and unintended pregnancy challenges

6.3.3 Influences of socio-cultural system on reproductive health

Poverty is one of the underlying reasons for early RH decisions. Providing incentives for girls' education is one of the few interventions that have been shown to effectively prevent early RH decisions.

- Free Compulsory Universal Basic Education should be enforced and expanded to reduce the burden of education
- Free SHS should be sustained and enforced to promote SHS education among young girls
- Government should make provision for school uniforms which are part of the expenses of sending children to school at the basic level
- The government should extend the LEAP program which is a cash transfer programme for the poor to the most prone RH districts of Yendi and Zabzugu to support livelihood and educational needs

The government in collaboration with stakeholders in reproductive health and traditional; authority should institute an award scheme for girls who delay marriage. This would help curb the menace of early and non-consensual marriages

Increased enforcement of existing policies is crucial for prevention of early RH decisions of early sex, child marriage and consent of marriage partner Government and donor agencies should resource and improve the capacity of agencies responsible for protecting girls against early RH decisions such as the Department of Social Welfare, Human Rights and Administrative Justice (CHRAJ), the Domestic violence and Victims Support Unit (DOVVSU) of the Ghana Police Service, International Federation of Women Lawyers (FIDA), and Women in Law and Development (WILDAF) to assist , rescue and reintegrate girls in danger and victims of early RH decisions.

Child marriage is rooted in socio-cultural practices and religious beliefs in many communities, but beyond stylized facts, the relationships between faith and child marriage are complex and change depending on the community. Government and all stakeholders in reproductive health should engage the Christian council, office of the chief Iman, community leaders and traditional authorities to develop a road map on ending early RH decisions of early sex, child marriage and consent of marriage partner in Ghana

Male involvement is important in promoting and achieving reproductive health rights. Government and stakeholders working in reproductive health should target boys and men at all levels (school, churches, mosques, traditional and cultural levels), train and educate them on gender, reproductive health rights and the benefits therein for family and society. They should also work with men to identify and recognize the effect of their power on women's reproductive health. Male conferences should be organized and male advocates trained to advocate on reproductive health rights of women.

6.3.4 Areas of further study

More research needs to be conducted on the relationship between RH decisions and outcomes with women outside the study's inclusion criteria of women within married settings only.

Views on men on RH decisions would also help broaden understanding on practices of early RH decisions

Additional research is needed to better understand the social patterning of early RH decisions. What characterizes the RH decisions among the youngest girls and the social forces that perpetuate it in the face of a rising trend in the average age at marriage in Sub-Saharan Africa.

6.4 Study Limitations

Admittedly, the study has some limitations. First, the data are cross-sectional. As a result, we are unable to draw causal connections between early exposure to RH decisions and subsequent RH outcomes.

Measuring age at marriage in Ghana and study area is a challenge. Unlike Western marriages, which are often unambiguously dated by signing of legal documents, the case in Ghana is different. Marriage in Ghana is a process consisting of multiple stages including legitimized sexual relations, cohabitation, and actual marriage ceremonies of engagements and wedding ceremonies. The process is not only lengthy but also varies across different ethnic and social groups. Considering the series and sequence of events required to solidify a union, makes it unclear as to when the union was formalized.

Another limitation is that the study reviewed and used articles irrespective of time and region as predictors of RH decisions and outcomes. However, different countries might have different predictors and determinants for RH decisions depending on the epidemiologic and demographic variations in those particular countries.

The study used retrospective data requiring women to recollect their previous RH experiences. A situation that may affect recall bias because the event of interest is across the life course of 5years the minimum.

Age misreporting could also be a major limitation to this study. Older women might suffer recall bias and might have forgotten the time they had their first intercourse or even married Other women may have misreported their ages due to religious doctrines that prohibit having sexual intercourse out of marriage.

Early RH decisions of early sex are sensitive, early and non-consensual marriages are sensitive and possible for respondents to under-report its occurrence. Question on age at

marriage and sex might have also elicited wrong response because some women might have felt embarrassed by the fact that they may have initiated sexual intercourse earlier or might have forgotten the age that they had their first sexual intercourse.

It is equally important to acknowledge that the study's conclusions are limited to married women (currently married). While never-married divorced/separated/widowed and cohabiting women and also men could have participated and shared experiences and broaden findings but were excluded.

In spite of these limitations, this study is the first to link early RH decisions to future RH experiences using the life course theory in the northern region

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APPENDICES

Appendix 1: Consent Form

CONSENT FORM: EARLY REPRODUCTIVE HEALTH CHOICES AND PRACTICES AND ASSOCIATED REPRODUCTIVE HEALTH OUTCOMES AMONG WOMEN IN NORTHERN REGION, GHANA

Project Title: Early reproductive health choices and practices and associated reproductive health outcomes among women in northern region, Ghana

Principal Investigator: Miriam R. Iddrisu
Miriam R. Iddrisu
School of Public Health,
University of Ghana, Legon
Cell phone number: 0244749926 or email: mira26565@yahoo.com

General information about the study

We are asking you to take part in a research study because we are trying to learn more about reproductive health choices of women and their associated reproductive health outcomes. We would like to better understand what determines the early RH choices (early sex, early marriage and choice of partner) women in the northern region of Ghana make; explore the factors that influence early RH choices; examine the extent to which socio-cultural systems influences RH choices of women in the northern region and assess the reproductive health outcomes that are associated with women's early reproductive health choices

Procedures

The study is interested in eliciting information from married women on how early RH of women influence their RH outcomes. A screening tool containing only three questions would be used to recruit participants. How old are you? At what age did you marry? How long have you being married? Women aged 15-49 years who have had a minimum of five years' experience in marital relationship can participate. . If you are eligible and agree to participate, you will participate in Focus Group Discussion (FGDs), an In-depth Interview (IDs) and a structured questionnaire. The interview will not take more than about 90 minutes, and there is no right or wrong answer to any of the questions. We will ask you questions about your background, sexual and reproductive health history, early marriage, sexual debut and choice of partner. , we will request for your mobile phone number so that we can follow you up if need be.

Possible Risks and Discomforts

The study may involve some risks. We anticipate some discomfort during the interview process given the sensitive nature of the topic. We will ask you questions about your background, sexual debut, choice of partner and age at marriage. If you choose to participate, there is a risk that you may share some personal information by chance, or that you may feel uncomfortable talking about some of the questions. Some of the questions focus directly on your personal life, and you may feel uncomfortable answering those questions or you may not know the answer to a particular question. However, I do not wish for this to happen. You are free to skip any questions you are not comfortable answering. You may also withdraw your consent and discontinue participation at any time and you have the right to refuse to answer any question.

Possible Benefits

There is no direct benefit to the participants of this study. However, the information you will provide will contribute to the overall knowledge on factors that influence early RH choices; examine the extent to which socio-cultural systems influences RH choices of women in the northern region and assess the reproductive health outcomes that are associated with women's early reproductive health choices. Overall, the study will not only deepen our understanding of early RH choices of women and associated outcomes but ultimately help to improve the general health and wellbeing for women in Ghana.

Voluntary Participation and Right to Refuse

Your participation in this study is absolutely voluntary. During the interview, you can choose not to answer any questions that you do not want to answer. Additionally, you are free to end your participation or stop the interview at any time. However, we will encourage you to participate and complete the questions since your opinions are very important in helping us to explore the early reproductive choices of women and their associated reproductive health outcomes.

Confidentiality

We would like to assure you that whatever information you provide will be handled with strict confidentiality, will be used purely for research purposes, and will never be used against you. We will only analyze the data in such a way that individuals will not be able to be identified. Your name or personally identifying information will not be published in any report. Some staff of the research team may sometimes review the research records, but no unauthorized individual(s) will be able to access your information.

Compensation

There is no compensation for participating in this study.

Contact for Additional Information
If you have questions later, you may contact:

Miriam R. Iddrisu 0244749926 or email: mira26565@yahoo.com

Your rights as a Participant

If you have any questions about your rights as a research participant, you can contact the Administrator of the GHS Ethical Review Committee at the following address:

Hannah Frimpong
GHS-Ethical Review Committee
Research and Development Division
Ghana Health Service
P. O. Box MB 190
Accra
Office: 0302 681 109
Mobile: 024 323 5225 or 050 704 1223
Email: Hannah.Frimpong@ghsmail.org

VOLUNTARY CONSENT

I declare that the above document describing the purpose, procedures as well as risks and benefits of the research titled "**EARLY REPRODUCTIVE HEALTH CHOICES AND PRACTICES AND ASSOCIATED REPRODUCTIVE HEALTH OUTCOMES AMONG WOMEN IN NORTHERN REGION, GHANA**" has been thoroughly explained to me in English/Hausa/Dagbani/Ligbagba language. I have been given the opportunity to ask any questions about the research answered to my satisfaction. I hereby voluntarily agree to participate as a subject in this study.

_____ ____/____/_____

Signature or Mark of Participant Date

If participant cannot read the read the form themselves, a witness must sign here.

I, _____ was present while the purpose, procedures as well as risks and benefits were read to the participant. All questions were answered and the participant has voluntarily agreed to participate as a subject in this research study.

_____ ____/____/_____

Signature of Witness Date

Interviewer's statement:

I, _____, certify that the nature and purpose, the potential benefits and possible risks associated with participating in the study have explained to the above individual in the English/Hausa/Dagbani/Ligbagba language. The participant has freely agreed to participate in the study.

_____ _____/____/_____

Signature of person who obtained consent Date

IDENTIFICATION		
1	Region:	Northern Region
2	District:	
3	Name of community	
4	Urban/rural: (URBAN = 1; RURAL = 2)	
5	Language of questionnaire:	
6	Language of interview:	
7	TRANSLATOR USED: (YES = 1, NO = 2)	

LANGUAGE OF RESPONDENT: Language Codes: English = 1, Dagbani = 2, Ligbagba= 3, Akan = 4, Hausa 5, Other = 4 (SPECIFY)

Introduction script

Thank you for taking the time to meet with us. My name is Miriam and my colleague is Wasie. I will be asking some questions on early RH decisions that you have made .My colleague will take notes on our conversation. Also, do not feel like you all need to agree with each other. If everyone is saying they feel one way and you feel the opposite please tell me. The focus group discussions should last about 30 minutes

Group identifier:

Interviewer:_____

Note taker: _____ Location:_____

Date:_____ Start time:_____ End time:_____

I.DEMOGRAPHIC INFORMATION AND PARTICIPANTS' BACKGROUND INFORMATION:

1. I understand that you are all mothers. Can you each tell me about yourselves

Code of respondents	Age	Age at marriage	NO of children	Age of first child
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11				

2. Can you please tell me more about yourselves?

Code of respondents	Educational Background	Employment status	Religion	Duration of marriage	Number of rivals (Rank)
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11					
12					

3. Can each of you provide responses for the following:

Age	Below 15	16-20	21-25	26-30	31-35	36-40	41-45	46+
Frequency								

4. Number of children

Age	Below 10	11-15	16-20	21-25	26-30	31-35	36-40	41-45
Frequency								

5.

Occupation (ask and list)								
Frequency (mention the number in each occupation)								

6. Age at first marriage

Age	Below 15	16-20	21-25	26-30	31-35	36-40	41-45	46+
Frequency								

II. EARLY RH DECISIONS

7. I'd like you to tell me about some RH decisions you have made? PROBE QUESTIONS :Probe for early sex, age at marriage and choice of partner , family planning usage before you got married

PROBE QUESTIONS: Probe for influencers of early sex, early marriage, and choice of partner, when do girls attain adulthood in this community?

EARLY SEX

8. What informed your decision to have sex for the first time?

PROBE QUESTIONS: Probe for age at first sex, peer and economic pressures on decision on early sex, Probe for Consensual and coerced sex, and influencers of early sex.

EARLY MARRIAGE

9. Did you know your prospective husband?

PROBE QUESTIONS: Probe for forced marriages. Probe for decisions and plans taken to escape early marriage, Probe for physical, economic and emotional preparedness,

Probe for ideal marriageable age for girls in your community? (May I meet a newly married couple at the end of our discussion?)

CHOICE OF MARRIAGE PARTNER

10. Whose right was it to decide on who you should marry?

PROBE QUESTIONS: Probe for influencers of marriage partners, Probe for objection to partner and escape attempts.

CHOICE OF CONTRACEPTIVES

11. Are you currently doing something or using any method to delay or avoid getting pregnant?

PROBE QUESTIONS: Probe for methods used and consistency? Probe for decisions and freedom and choice of contraceptives and usage, Family size and/or spacing of children

CHOICE OF MATERNAL HEALTH SERVICES

12. Who takes decisions for seeking treatment?

PROBE QUESTIONS: Probe for FP, ANC, and delivery and PNC decisions? Probe for where they receive FP, ANC, delivery and PNC care, probe for who decides whether to use maternal health services or otherwise, Use of skilled maternal health services?

FACTORS INFLUENCING RH DECISIONS.

13. What informed your decision to make these early RH decisions of early sex, early and choice of marriage partner?

PROBE QUESTIONS: Probe for family, peer, community pressure ,Probe on community norms on sex,marriage and choice of marriage partner, Probe for spousal consent and support on contraceptive usage

III. REPRODUCTIVE HEALTH OUTCOMES.

14. Has early RH decisions of early sex, early and choice of marriage partner affected you?

PROBE QUESTIONS: Probe for STDs , high fertility and abortion, DV/SGBV, education, health, GBV, infant morbidity. Probe for complications during pregnancy, Probe for miscarried, stillbirth and successful delivery, Probe for spousal communication on FP, number and spacing of children, ANC, Sex decisions

15. Are there any benefits of early RH decisions of early sex, early and choice of marriage partner ?

Thank you for your time and responses

IDENTIFICATION		
1	Region:	Northern Region
2	Districts:	Yendi and Zabzugu
3	Name of community	
4	Urban/rural: (URBAN = 1; RURAL = 2)	Lanjeli (Zabzugu) ,Nakpachei (Yendi) Kukpaligu(Zabzugu), Gbungbalga (Yendi)
5	Language of interview:	
6	TRANSLATOR USED: (YES = 1, NO = 2)	

LANGUAGE OF RESPONDENT: Language Codes: English = 1, Dagbani = 2, Ligbagba= 3, Akan = 4, Hausa 5, Other = 4 (SPECIFY)

Introduction script

Thank you for taking the time to meet with us. My name is Miriam and this is my colleague is Wasie. I will be asking some questions on early RH choices that you. My colleague will take notes on our conversation.

Key informant:_____ Contact:_____

Note taker: _____ Location:_____

Date:_____ Start time:_____ End time:_____

IV. **Introduction questions**

7. What work do you exactly in the Northern region?
8. Do you or your organization work on RH choices of early sex, marriage and choice partner?
9. What exactly do you /organization does in the area of early sex, marriage and choice partner?
10. Do you still have some on-going intervention? What are they?
11. Do you work in the Yendi and Zabzugu districts?
12. How long have you / organization worked in these districts?

13. **Understanding the Context**

14. Can you mention some early RH choices women make in the Northern region (add Yendi and Zabzugu districts if applicable)?

15. In your view what informs women's RH choices of early sex, marriage and choice partner?

16. Can you share some stories/incidents on early sex, marriage and choice partner in the course of duty?

17. Did you/ organization intervene? Exactly what did you do?

Early RH choices

18. In your view do women make these RH choices by themselves (early sex, marriage and choice partner)?

19. Who in your view makes the final decision on women's early RH choices on early sex, marriage and choice partner? Can you share some example

20. Can you share some working experiences/stories on influencers of early sex, marriage and choice partner

Socio-cultural factors.

21. Can you mention some factors that influence women to engage in
a. Early sex:
b. Early marriage:
c. Choice of partner:

22. Can you mention some influencers of women who engage in early sex, early marriage and Choice of partner?

23. Can you please share an experience /incident on these influencers?

24. What role do these influencers play exactly in women's decision to have sex for the first time, marry and choice of partner?

25. In your view are women in better stead to make RH choices when not married or vice versa? Please explain in either case?

26. In your line of work/ experience who makes decisions on on choice and use of contraceptives
27. Decisions on using available maternal health services (Ante-natal, skilled delivery and post-natal?

Reproductive health outcomes.

28. In your view what are the consequences of early RH choices on women
    a. Consequences of early sex
    b. Consequences of early marriage
    c. Consequences of choice partner ?
29. Can you mention some more outcomes of early sex,early marriage and choice of partner?
30. Can you share examples/experiences in your line of work?
31. Do women's RH choices affect their health?
32. Can you share with me the effects of RH choices on early childbirth?
33. What are some the effects of RH choices (early sex,early marriage and choice of partner) on Unintended Pregnancy?
34. Can you share with me the effects of RH choices(early sex,early marriage and choice of partner) on school drop out?
35. Can you share with me the effects of RH choices on GBV?
36. Can you share with me the effects of RH choices on spousal communication?

Recommendations and way forward

37. What can be done to influence the RH choices of women on the following:
    a. Early sex:
    b. Early marriage :
    c. Choice of partner?
38. In your view what should be done to reduce the RH outcomes faced by women
    a. Early Child Birth:
    b. Unintended Pregnancy:
    c. School Drop-out:
    d. Gender Based Violence
    e. Poor spousal communication
39. In your view how can women participate in RH of early sex,early marriage and choice of marriage partner?

Thank you for your time and responses

CONSENT FORM: EARLY REPRODUCTIVE HEALTH CHOICES AND PRACTICES AND ASSOCIATED REPRODUCTIVE HEALTH OUTCOMES AMONG WOMEN IN NORTHERN REGION, GHANA

Project Title: Early reproductive health choices and practices and associated reproductive health outcomes among women in northern region, Ghana

Principal Investigator: Miriam R. Iddrisu
Miriam R. Iddrisu
School of Public Health,
University of Ghana, Legon
Cell phone number: 0244749926 or email: mira26565@yahoo.com

General information about the study

We are asking you to take part in a research study because we are trying to learn more about reproductive health choices of women and their associated reproductive health outcomes.We would like to better understand what determines the early RH choices (early sex, early marriage and choice of partner) women in the northern region of Ghana make; explore the factors that influence early RH choices; examine the extent to which socio-cultural systems influences RH choices of women in the northern region and assess the reproductive health outcomes that are associated with women's early reproductive health choices

Procedures

The study is interested in eliciting information from married women on how early RH of women influence their RH outcomes. A screening tool containing only three questions would be used to recruit participants. How old are you? At what age did you marry? How long have you being married? Women aged 15-49 years who have had a minimum of five years' experience in marital relationship can participate. . If you are eligible and agree to participate, you will participate in Focus Group Discussion (FGDs), an In-depth Interview (IDs) and a structured questionnaire.The interview will not take more than about 90 minutes, and there is no right or wrong answer to any of the questions. We will ask you questions about your background, sexual and reproductive health history, early marriage, sexual debut and choice of partner. , we will request for your mobile phone number so that we can follow you up if need be.

Possible Risks and Discomforts

The study may involve some risks. We anticipate some discomfort during the interview process given the sensitive nature of the topic. We will ask you questions about your background, sexual debut, choice of partner and age at marriage. If you choose to participate, there is a risk that you may share some personal information by chance, or that you may feel uncomfortable talking about some of the questions. Some of the questions focus directly on your personal life, and you may feel uncomfortable answering those questions or you may not know the answer to a particular question. However, I do not wish for this to happen. You are free to skip any questions you are not comfortable answering. You may also withdraw your consent and discontinue participation at any time and you have the right to refuse to answer any question.

Possible Benefits

There is no direct benefit to the participants of this study. However, the information you will provide will contribute to the overall knowledge on factors that influence early RH choices; examine the extent to which socio-cultural systems influences RH choices of women in the northern region and assess the reproductive health outcomes that are associated with women's early reproductive health choices. Overall, the study will not only deepen our understanding of early RH choices of women and associated outcomes but ultimately help to improve the general health and wellbeing for women in Ghana.

Voluntary Participation and Right to Refuse

Your participation in this study is absolutely voluntary. During the interview, you can choose not to answer any questions that you do not want to answer. Additionally, you are free to end your participation or stop the interview at any time. However, we will encourage you to participate and complete the questions since your opinions are very important in helping us to explore the early reproductive choices of women and their associated reproductive health outcomes.

Confidentiality

We would like to assure you that whatever information you provide will be handled with strict confidentiality, will be used purely for research purposes, and will never be used against you. We will only analyze the data in such a way that individuals will not be able to be identified. Your name or personally identifying information will not be published in any report. Some staff of the research team may sometimes review the research records, but no unauthorized individual(s) will be able to access your information.

Compensation

There is no compensation for participating in this study.

Contact for Additional Information
If you have questions later, you may contact:

Miriam R. Iddrisu 0244749926 or email: mira26565@yahoo.com

Your rights as a Participant

If you have any questions about your rights as a research participant, you can contact the Administrator of the GHS Ethical Review Committee at the following address:

Hannah Frimpong
GHS-Ethical Review Committee
Research and Development Division
Ghana Health Service
P. O. Box MB 190
Accra
Office: 0302 681 109
Mobile: 024 323 5225 or 050 704 1223
Email: Hannah.Frimpong@ghsmail.org

VOLUNTARY CONSENT

I declare that the above document describing the purpose, procedures as well as risks and benefits of the research titled **"EARLY REPRODUCTIVE HEALTH CHOICES AND PRACTICES AND ASSOCIATED REPRODUCTIVE HEALTH OUTCOMES AMONG WOMEN IN NORTHERN REGION, GHANA"** has been thoroughly explained to me in English/Hausa/Dagbani/Ligbagba language. I have been given the opportunity to ask any questions about the research answered to my satisfaction. I hereby voluntarily agree to participate as a subject in this study.

_____ ____/____/_____
Signature or Mark of Participant Date

If participant cannot read the read the form themselves, a witness must sign here.

I, _____ was present while the purpose, procedures as well as risks and benefits were read to the participant. All questions were answered and the participant has voluntarily agreed to participate as a subject in this research study.

_____ ____/____/_____
Signature of Witness **Date**

Interviewer's statement:

I, _____, certify that the nature and purpose, the potential benefits and possible risks associated with participating in the study have explained to the above individual in the English/Hausa/Dagbani/Ligbagba language. The participant has freely agreed to participate in the study.

_____ _____/____/_____

Signature of person who obtained consent Date

IDENTIFICATION		
1	Region:	Northern Region
2	District:	
3	Name of community	
4	Urban/rural: (URBAN = 1; RURAL = 2)	
5	Language of questionnaire:	
6	Language of interview:	
7	TRANSLATOR USED: (YES = 1, NO = 2)	

LANGUAGE OF RESPONDENT: Language Codes: English = 1, Dagbani = 2, Ligbagba= 3, Akan = 4, Hausa 5, Other = 4 (SPECIFY)

Introduction script

Thank you for taking the time to meet with us. My name is Miriam and this is my colleague Wasie. I will be asking some questions on early RH decisions that you have made .My colleague will take notes on our conversation. As indicated earlier we want to find out some of the early RH decisions you have made and what motivated some of the decisions you made and its associated outcomes. The questionnaire will take less than 20 minutes. I will ask you the questions from the papers I am holding and I will mark your responses. Some of the questions I will ask are very personal and may make you a little uncomfortable. You have the right to refuse to participate in this questionnaire. Do you have any questions before I proceed?

Do I have your permission to start?

Identifier:

Interviewer: _____

Note taker: _____ Location:_____

Date: ---------- Start time: ---------- End time: ----------

NO	QUESTION	RESPONSES	CODE
SOCIO- DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS			
1.	Age	.....	
2.	Year of birth (MM/DD/YY)	.....	
3.	Marriage type	1. Customary 2. Ordinance/Christian 3. Consensus 4. Muslim	1 2 3 4
4.	What is your highest level of education?	1. No education 2. Primary 3. JHS 4. SHS 5. Tertiary 6. Qur'anic 7. Other (specify).....	1 2 3 4 5 6 7
5.	What is the highest level of education for your Mother/ father /guardian?	1. No education 2. Primary 3. JHS 4. SHS 5. Tertiary 6. Qur'anic 7. g. Other (specify).....	1 2 3 4 5 6 7
6.	Religion	1. Catholic 2. Protestant 3. Pentecostal 4. Muslim 5. Traditionalist 6. Other (specify).....	1 2 3 4 5 6
7.	Employment status	1 Unemployed 2 Self-employed 3 Other (specify).....	1 2 3
8.	In addition to yourself, how many wives does your husband have?	.....	
9.	What is your rank? Are you the first, second wife?	1. First wife 2. Second wife 3. Third wife 4. Fourth wife	1 2 3 4
10	Number of children?	.....	
11.	How old is your first child?	.....	
12.	Do you have children you have given birth to who do not live with you?	1 Yes 2 No (SKIP TO 14)	1 2
13.	If yes how many of your children are alive but do not live with you?	.....	
14.	When did you have your most recent baby?	1. 2016 2. 2015	1 2

		3. 2014 4. 2013 5. Below 2012 ----------	3 4 5
EARLY RH DECISIONS			
15.	Which of the following decisions have you made in your life time? (multiple options)	1. Decisions to work 2. Marry. 3. Engage in sex 4. Use contraceptives 5. Chose my marriage partner 6. Drop out of school 7. Go for ANC visits 8. Deliver in a health facility 9. Other (specify).....	1 2 3 4 5 6 7 8 9
16.	Which of these decisions did you make by yourself? (multiple options)	1 Chose my marriage 2 Sex before age 16 3 Marriage before 18 4 chose spouse 5 Use contraceptives 6 Go for ANC visits 7 Deliver in a health facility 8 Other (specify).....	1 2 3 4 5 6 7 8
EARLY SEX			
17.	What age did you have sex for the first time?	---------- (SKIP TO 19 IF AGE AT FIRST SEX IS ABOVE 16)	
18.	If engaged in sex before age 16 what /who informed your decision to engage in early sex?	1. Love 2. Culture 3. Parent's 4. Relative's 5. Friends 6. Curiosity 7. Other (specify).....	1 2 3 4 5 6 7
19.	What informed your decision to have sex for the first time?	1. Love 2. Curiosity 3. Friends 4. Culture 5. Poverty 6. Other (specify).....	1 2 3 4 5 6
20.	Was this person older than you, younger than you, or about the same age as you?	1 Oder 2 Younger. 3 About the same age 4 d. Don't remember	1 2 3 4
21.	Whose decision was it to engage in sex for the first time?	1. Self 2. Friends 3. Partner 4. Relatives	1 2 3 4

22.	How will you describe your first sex?	1. Consensual 2. Rape 3. Coercive sex 4. Other (specify).....	1 2 3 4
23.	Did your partner use contraceptive during your first sex?	1 Yes 2 No (SKIP TO 25)	1 2
24.	If No, what was the reason?	1. He had no condoms 2. Did not have any knowledge about condoms 3. I wanted to get pregnant 4. Wanted him to trust me 5. Other (specify).....	1 2 3 4 5
EARLY MARRIAGE			
25.	How long have you been married	----------	
26.	At what age did you marry for the first time?	_____ years old	
27.	If married before age 18 What informed your decision to marry early?	1. Love 2. Culture 3. Parent's 4. Relative's 5. Friends 6. Other (specify).....	1 2 3 4 5 6
28.	Do you know the legal age at marriage in Ghana?	1 Yes 2 No (SKIP TO 30)	1 2
29.	If yes what is the legal age of marriage in Ghana?	.....	
30.	The final decision to marry was made by:	1. Myself only 2. My future spouse and myself 3. Jointly with my family 4. My family only 5. My future spouse's family 6. Other (specify).....	1 2 3 4 5 6
31.	Were you ever asked if you wanted to get married at that age?	1 Yes 2 No (SKIP TO 33)	1 2
32.	If yes what was your response /action	1. I objected 2. Tried to escape 3. I agreed to marry 4. d. Other (specify).....	1 2 3 4
CHOICE OF MARRIAGE PARTNER			
33.	What influenced your choice of marriage partner?	1 Love 2 Age 3 Religion 4 Family 5 Friends 6 Relatives 7 Other (specify).....	1 2 3 4 5 6 7
34	What were you doing before you got married?	1. In school 2. Skills training 3. Trading 4. Farming 5. Home doing nothing	1 2 3 4 5

		6. Other (specify).....	6
35.	If you were undergoing any training were you allowed to continue after marriage?	1Yes (SKIP TO 37) 2No	1 2
36.	If no, how do you feel about not being allowed to continue studying/working	1. Normal 2. Sad 3. Frustrated 4. Depressed 5. Angry 6. Other (specify).....	1 2 3 4 5 6
37.	How would you describe your marriage?	1. Married out of love 2. Arranged marriage 3. Coerced by my parents 4. Coerced by My future spouse 5. coerced by friends 6. Other (specify).....	1 2 3 4 5 6
38.	Did you know your prospective husband?	1 Yes 2 No	1 2
39.	Were you ever asked if you wanted to get married to this person?	1 Yes 2 No (SKIP TO 41)	1 2
40.	If yes? Did you object?	1Yes 2 No (SKIP TO 42)	1 2
41.	If yes, how did you convey your objection?	1 Complained to family member 2 Complained to husband to be 3 Complained to the family of husband to be 4 Reported to religious leaders 5 Discussed with friends 6 Other (specify).....	1 2 3 4 5 6
42.	If you felt like you could not object, why do you think that was the case?	1. Every girl my age was married 2. Nobody would support me 3. Nobody has ever objected and didn't want to be the first 4. Preserve family honor 5. I had nowhere to escape to 6. Other (specify).....	1 2 3 4 5 6
43.	Would you have married your present husband if you had a choice?	1 Yes 2 No	1 2
44.	What was the Marital Status of your partner at time of marriage?	1. Single 2. Married 3. Divorced 4. Widowed	1 2 3 4
45.	Whose right was it to decide on who you should marry?	1. Self 2. Parent's 3. Relative's 4. Friends 5. Other (specify).....	1 2 3 4 5
46.	Did you ever attempt to escape from the marriage?	1 Yes 2 No	1 2
47.	What/who stopped you from escaping?	1. Reputation- of the family. 2. I would not succeed	1 2

		3. Nobody has ever escaped 4. It was not possible 5. Afraid of punishment 6. Other (specify).....	3 4 5
CHOICE OF CONTRACEPTIVES			
48.	When you first got pregnant, did you want to become pregnant then?	1. I wanted to wait until later? 2. I did you not want to have any (more) children at all? 3. Did you see anyone for antenatal care for this pregnancy?	1 2 3
49.	The last time you became pregnant did you want to become pregnant then?	1 I wanted to wait until later? 2 I did you not want to have any (more) children at all? 3 Did you see anyone for antenatal care for this pregnancy?	1 2 3
50.	Have you ever used anything or tried in any way to delay or avoid getting pregnant?	1 Yes (SKIP TO 50) 2 No	1 2
51.	If No why?	1. Don't know where to access contraceptives 2. Opposition from husband 3. I cannot afford 4. Religious prohibition 5. I need more babies 6. Other (specify).....	1 2 3 4 5 6
52.	Are you currently doing something or using any method to delay or avoid getting pregnant?	1 Yes 2 No (SKIP TO 53)	1 2
53.	If yes can you name the methods that you are currently using?	1. IUD 2. Injectable 3. Implants 4. Pill 5. Male condoms 6. Female condoms 7. Emergency contraceptives 8. Female Sterilization 9. Male Sterilization 10. Rhythm 11. Withdrawal 12. Other (specify).....	1 2 3 4 5 6 7 8 9 10 11 12
54.	Does your husband approve of the current method that you are using?	1 Yes 2 No	1 2
55.	The last time you had sex did you or your partner use any method to avoid or prevent pregnancy	1 Yes 2 No (SKIP TO 55)	1 2
56.	If yes what method did you or your partner use?	1. IUD 2. Injectable 3. Implants 4. Pill 5. Male condoms 6. Female condoms	1 2 3 4 5 6

		7. Emergency contraceptives 8. Female Sterilization 9. Male Sterilization 10. Rhythm 11. Withdrawal	7 8 9 10 11
57.	If no what were your reasons for not using any contraceptives?	1. Lactating 2. Pregnant 3. I want more children 4. I don't have sex regularly. 5. Don't know where to access contraceptives 6. Opposition from husband 7. I cannot afford 8. Religious prohibition 9. Other (please describe):----------	1 2 3 4 5 6 7 8 9
58.	Which of the following applies to you? (multiple options)	1. Never use contraceptives 2. I hardly use contraceptives 3. sometimes I use contraceptives 4. I use birth control about half of the time I have sex 5. Every time I have sex I use contraceptives	1 2 3 4 5
59.	Who takes decisions regarding family planning?	1 Mainly my decision 2 Mainly husbands decision 3 Both decide together 4 Mother in-laws decisions 5 Friends influence 6 Other (specify).....	1 2 3 4 5 6
60	When did you have your most recent baby?	1. less than year 2. 1-2 3. 3-5. 4. 6-10	1 2 3 4
61.	How long would you like to wait from now before the birth of (a/another) child?	1. Few Months 2. 1 Year 3. 2-3 years 4. 4-5 years 5. Don't know 6. Done with having babies 7. Other (specify).....	1 2 3 4 5 6 7
CHOICE OF MATERNAL HEALTH SERVICES			
62.	Do you visit a health facility when pregnant?	1 Yes 2 No	1 2
63.	Where do you receive Antenatal Care (ANC) when pregnant?	1. Home 2. Hospital 3. Clinic 4. CHPS 5. Mobile clinic 6. Other (specify).....	1 2 3 4 5 6

64.	Who decides whether you should go for ANC visits?	1 self 2 Husband 3 Parent's 4 community health volunteers 5 friends 6 Other (specify).....	1 2 3 4 5 6
65.	Who decides where to deliver your child?	1. self 2. Husband 3. Parent's 4. Mother in-law 5. community health volunteers 6. Other (specify).....	1 2 3 4 5 6
66.	Where was your last child born?	1. Home 2. Hospital 3. Clinic 4. CHPS 5. Private clinic 6. Other (specify).....	1 2 3 4 5 6
67.	Who assisted you in delivering your last child?	1. TBA/unskilled birth attendant 2. Trained birth attendant 3. Relatives/neighbors 4. Village doctor 5. Midwife 6. CHN 7. Doctor 8. Other (specify).....	1 2 3 4 5 6 7 8
68.	Do you go for Post Natal Care (PNC) visits	1 Yes 2 No	1 2
69.	Who decides whether you should go for PNC visits?	1. Self 2. Husband 3. Parent's 4. Mother in-law 5. community health volunteers 6. Friends 7. Other (specify).....	1 2 3 4 5 6 7
FACTORS INFLUENCING RH DECISIONS			
70.	What informed your decision to engage in sex for the first time?	1. Love 2. Coerced by friends 3. Coerced by family 4. Coerced by partner 5. Other (specify).....	1 2 3 4 5
71.	What influenced your decision to marry?	1. Love 2. Age 3. Religion 4. Family 5. Friends 6. Relatives 7. Other (specify).....	1 2 3 4 5 6 7
72.	Who/What influenced your decision to use contraceptives?	1. Health professionals 2. Husband 3. Family 4. Friends	1 2 3 4

		5. Other (specify).....	5
73.	Who decides on the number of children you should bear?	1 Self 2 Husband 3 Family 4 Friends 5 Relatives 6 Other (specify).....	1 2 3 4 5 6
74.	Who decides your access to health care services or otherwise when sick?	1. Self 2. Husband 3. Family 4. Friends 5. Mother in-law 6. Other (specify).....	1 2 3 4 5
75.	Now that you are married do you make more RH choices than when you were not married?	1 Yes 2 No	1 2
76	If yes ?What are the choices you can make now that you are married	1 Family Planning 2 Visiting the hospital 3 Number of children 4 Other (specify).....	1 2 3 4
EARLY SEX OUTCOMES			
77.	Which of the following applies to you? (multiple options)	1 Unwanted pregnancy 2 Early marriage 3 Dependent on husbands 4 Abortion 5 STD 6 High fertility 7 Drop out of school 8 Infant morbidity and mortality 9 GBV 10 Poor spousal communication 11 Other (specify).....	1 2 3 4 5 6 7 8 9 10 11
78	Have you ever contracted any disease through sex?	1 Yes 2 No (SKIP TO 80)	1 2
79	If "Yes": How old were you when you first had this disease or condition?	----------	
80.	What is/are these conditions (multiple options)	1. Chlamydia. 2. Gonorrhea. 3. Genital Herpes. 4. HIV/AIDS. 5. Human Papillomavirus (HPV) 6. Syphilis. 7. Bacterial Vaginosis. 8. Trichomoniasis 9. Other (specify).....	1 2 3 4 5 6 7 8 9
81.	Where did you seek treatment?	1 Hospital 2 Clinic 3 CHPS Compound 4 Traditional medication 5 Other (specify).....	1 2 3 4 5
82.	Have you had an abortion before?	1 Yes 2 No (SKIP TO 82)	1 2

83.	If yes what was your age at first abortion ?(record age in years):	----------	
EARLY MARRIAGE OUTCOMES			
84.	Did you marry before age 18?	1 Yes 2 No (SKIP TO 88)	1 2
85.	If yes do you have any regrets?	1Yes 2 No	1 2
86.	Marrying early affected my.... (multiple options)	1. Education 2. Fertility 3. GBV 4. Divorce 5. Plans to the city 6. Spousal communication 7. Health of my children 8. Unintended pregnancy 9. Other (specify).....	1 2 3 4 5 6 7 8
87.	Has marrying early benefitted you?	1Yes 2 No (SKIP TO 92)	1 2
88.	If yes, how?	1. I have many children 2. I have support for farm 3. I have support with domestic chores 4. Other (specify).....	1 2 3 4
CHOICE OF MARRIAGE PARTNER OUTCOMES			
89.	Did you marry a man of your own choice?	1 Yes (SKIP TO 93) 2 No	1 2
90.	Who made the choice of your partner?	1. Parents 2. Religious leaders 3. Traditional leaders 4. Other (specify).....	1 2 3 4
91.	If no, how has it affected you?	1. I am not happy 2. We don't communicate 3. I don't feel respected 4. I experience GBV 5. Unplanned pregnancy 6. Number of children 7. Other (specify).....	1 2 3 4 5
92	Would your life have been different if you had married a man of your own choice?	1 Yes 2 No	1 2
93	How?	1. I would have been happy 2. I would have married my age mate 3. I would have Completed school 4. I would have learnt a trade 5. I would not have had many children 6. I would live in the city 7. I would not have been poor 8. Enjoyed effective communication	1 2 3 4 5 6 7 8
94	Should women be allowed to choose their marriage partners?	1Yes 2 No	1 2

95.	**Provide reasons in either case?**	----------	
UNINTENDED PREGNANCY OUTCOMES			
96.	Have you ever been pregnant but did not want to get pregnant at that time?	1Yes 2 No (SKIP TO 99)	1 2
97.	If yes what happened to the pregnancy?	1 I delivered the baby and is living with me today 2 I took herbs to abort the baby 3 I delivered but child died later 4 Pregnancy terminated by itself 5 I had an abortion	1 2 3 4 5
98.	What influenced your decision about the pregnancy?	1 Wanted it but I was not ready to have a child. 2 I was too young to have a baby 3 My partner wanted me to get rid of it. 4 I did not want to have a child with that partner 5 1 did not want my family to know 6 I could not afford to look after the baby 7 My previous baby was too young	1 2 3 4 5 6 7
DV/SGBV OUTCOMES			
99.	Has your spouse ever subjected you to DV/SGBV?	1 Yes 2 No (SKIP TO101)	1 2
100	Yes, my spouse---- (Multiple options)	1. Control 2. Physical Abuse 3. Sexual Abuse 4. Emotional Abuse 5. Intimidation 6. Isolation 7. Verbal Abuse 8. Coercion, 9. Threats, & Blame 10. Economic Abuse	1 2 3 4 5 6 7 8 9 10
101	Is a husband justified in hitting or beating his wife in the following situations:		
	If she goes out without telling him?	1Yes 2 No 3 Don't Know	1 2 3
	If she neglects the children?	1Yes 2 No 3 Don't Know	1 2 3
	If she argues with him?	1Yes 2 No 3 Don't Know	1 2 3
	If she refuses to have sex with him?	1Yes 2 No 3 Don't Know	1 2 3

	If she neglects the children?	1Yes 2 No 3 Don't Know	1 2 3
	If she burns the food?	1Yes 2 No 3 Don't Know	1 2 3
102	Does your husband/partner ever say or do something to humiliate you in front of others?	1 Often 2 Sometimes 3 Not at all	1 2 3
	Threaten to hurt or harm you or someone close to you?	1 Often 2 Sometimes 3 Not at all	1 2 3
	Insult you or make you feel bad about yourself?	1 Often 2 Sometimes 3 Not at all	1 2 3
	Has your husband ever done the following things to you?	1 Often 2 Sometimes 3 Not at all	1 2 3
	Push you, shake you, or throw something at you?	1 Often 2 Sometimes 3 Not at all	1 2 3
	Slap you	1 Often 2 Sometimes 3 Not at all	1 2 3
	Twist your arm and pull your hair	1 Often 2 Sometimes 3 Not at all	1 2 3
	Punch you with his fists	1 Often 2 Sometimes 3 Not at all	1 2 3
	Kick you and drag you	1 Often 2 Sometimes 3 Not at all	1 2 3
	Threaten and attack you with knife or weapon	1 Often 2 Sometimes 3 Not at all	1 2 3
	Physically force you to have sex with him when you do not want to	1 Often 2 Sometimes 3 Not at all	1 2 3
	Has your husband physically hurt you while you were pregnant?	1 Often 2 Sometimes 3 Not at all	1 2 3
	Force you to perform sexual acts you do not want to	1 Often 2 Sometimes 3 Not at all	1 2 3
103	Can you disagree with your husband decision on FP choice	1Yes 2.No	1 2
104	Has your husband ever pressured you not to use contraceptives?	1 Yes 2. No	1 2
105	If yes what exactly did he do?	1. Prevented me from using contraceptives	1

		2. Refused me money to visit the clinic 3. Did not allow me visit the clinic 4. Searched and destroyed my contraceptives 5. He never used a condom himself 6. Other (specify)----------	2 3 4 5 6
106	Has anyone ever forced you as a child or as an adult in any way to have sexual intercourse or perform any other sexual acts?	1 Yes 2 No (SKIP TO 108)	1 2
107	Who was the person who forced you at that time?	1. Current husband/partner 2. Former husband/partner 3. Father 4. Neighbor 5. Step father 6. Relative 7. In-law 8. Own friend/acquaintance 9. Family friend 10. Teacher 11. Stranger	1 2 3 4 5 6 7 8 9 10 11
108	Can you say no to your husband/partner if you do not want to have sexual intercourse	1Yes 2 No 3 Not sure	1 2 3
	Do you think that if a woman refuses to have sex with her husband when he wants her to, he has the right to	1Yes 2 No 3 Not sure	1 2 3
	Get angry and reprimand her?	1Yes 2 No 3 Not sure	1 2 3
	Refuse to give her money or other means of support?	1Yes 2 No 3 Not sure	1 2 3
	Use force and have sex with her even if she doesn't	1Yes 2 No 3 Not sure	1 2 3
	Go ahead and have sex with another woman?	1Yes 2 No 3 Not sure	1 2 3
110	Were you, at any point of your marriage afraid for your physical/emotional safety?	1 Yes 2 No	1 2
111	How often does your partner abuse you?	1 Often 2 Sometimes 3 Not at all	1 2 3
112	Did you ever feel t your spouse thought you were not important?	1 Yes 2 No	1 2

113	Explain in either case	----------	
HIGH FERTILITY OUTCOMES			
114	Who makes decisions about the number of children to have?	1. Self 2. husband/partner, 3. self and husband jointly 4. Someone else? (specify)	1 2 3 4
115	How many children have you had in your life?	----------	
116	If you could choose exactly the number of children to have in your whole life, how many would that be?	----------	
117	How many of these children would you like to be boys, how many would be boys and how many would the sex not matter	----------	
118	Have you exceeded your fertility expectation?	1 Yes 2 No (SKIP TO 120)	1 2
119	If yes what are the challenges being faced?	1. Feeding 2. Accommodation 3. School fees 4. Clothing 5. Health care 6. Other (specify)	1 2 3 4 5 6
MATERNAL MORBIDITY OUTCOMES			
120	How many pregnancies have you experienced in your entire life?	1 Yes 2 No	1 2
121	Have you ever had a pregnancy that miscarried, was aborted or ended in a still birth?	1 Yes 2No	1 2
122	If yes, how long ago (In years)?	.....	
123	Was there any pregnancy Miscarried?	1 Yes 2 No (SKIP TO 126)	1 2
124	If yes, How many?	.....	
125	Did any pregnancy end as stillbirth?	1Yes 2No	1 2
126	If yes, how many?	.....	
127	How many pregnancies ended with successful delivery?	.....	
128	What complications you faced during your last pregnancy? (Multiple options)	1 Did not suffer from any complication 2 Morning Sickness/Dizziness 3 Cough/Fever 4 Headache/blurry vision 5 Blood pressure 6 Palpitation 7 Hemorrhage 8 Preeclampsia/Oedema 9 Abdominal pain 10 Excessive Vomiting	1 2 3 4 5 6 7 8 9 10

		11 Septic Abortion 12 Others (Please specify).....	11 12
129	How many children have you given birth in total?	Boys ---------Girls ----------	
130	How many of your children are alive now?	Boys --------- Girls ----------	
131	What are the complications you faced with during delivery?	a. Did not suffer from any complication b. Excessive hemorrhage c. Convulsions/eclampsia d. Prolonged labor e. Obstructed labor f. Retained placenta g. Torn uterus h. Hands/feet came first i. Others (Please specify).....	1 2 3 4 5 6 7 8 9
132	What are the complications that occurred after delivery?	1. Did not suffer from any complication 2. Pelvic Infection 3. Urinary Tract Infection 4. Uterine Prolapse 5. Perineal Tears– 6. Severe Anemia 7. Hypertension 8. Leg Problems 9. Postpartum 10. Sepsis/Infections 11. Others (Please specify).....	1 2 3 4 5 6 7 8 9 10 11
UNSAFE ABORTION OUTCOMES			
133	Previous pregnancy terminations	1 0 2 1 3 2 4 3 5 4 and above	1 2 3 4 5
134	Would you say that the decision to have abortion was personal?	1Yes 2 No	1 2
135	Who initiated the termination of pregnancy?	1. Self 2. Husband 3. Doctor/nurse 4. Pharmacy worker 5. Herbalist 6. Other (Specify)	1 2 3 4 5 6
136	Tick the methods that were used to start off the abortion	**To initiate process** / **Complete process**	1 2
	Medicine from pharmacy/shop taken orally (name if known)		
	Herbal preparation taken orally (name if known)		
	Other oral preparations (s Herbal preparation self-inserted into vagina (name if known) specify)		
	Other chemicals self-inserted into vagina (specify)		

	Medicine from the pharmacy self-inserted into vagina (name if known)		
	Medicine/herbs/other chemicals put in vagina by someone else (specify)		
	Physical removal using solid wooden/plastic/metallic objects by self (specify)		
	Physical removal using solid wooden/plastic/metallic objects by someone else (specify)		
	Abortion done in a health facility by a skilled professional		
137	What complications did you experience?		
	Hemorrhage not requiring transfusion	1 Yes 2. No	1 2
	Hemorrhage requiring transfusion	1 Yes 2. No	1 2
	Pelvic infection	1 Yes 2. No	1 2
	Pelvic abscess	1 Yes 2. No	1 2
	Lower genital tract injury	1 Yes 2. No	1 2
	Injury to other organs	1 Yes 2. No	1 2
	Upper genital tract injury	1 Yes 2. No	1 2
	Other organ failure (specify)	1 Yes 2. No	1 2
SPOUSAL COMMUNICATION OUTCOMES			
138	Indicate the extent to which you disagree or agree with the following statements		
	He/she feels comfortable talking about our sexual relationship	1 Agree 2 Disagree 3 Undecided	1 2 3
	He communicate about when to have sex	1 Agree 2 Disagree 3 Undecided	1 2 3
	He communicate about pregnancy related issues	1 Agree 2 Disagree 3 Undecided	1 2 3
	He communicates about number of children that we should have	1 Agree 2 Disagree 3 Undecided	1 2 3
	He communicate about ANC visits	1 Agree 2 Disagree 3 Undecided	1 2 3
	We have equal influence in decision making	1 Agree 2 Disagree 3 Undecided	1 2 3
139	Indicate the extent to which you disagree or agree with the following statements?		
	My husband is always willing to	1 Agree	1

	communicate	2 Disagree 3 Undecided	2 3
	My husband understand me when I speak	1 Agree 2 Disagree 3 Undecided	1 2 3
	My husband communicates coldness rather than warmth	1 Agree 2 Disagree 3 Undecided	1 2 3
	My husband is always communicating a sense of distance.	1 Agree 2 Disagree 3 Undecided	1 2 3
	He acts bored by our conversation	1 Agree 2 Disagree 3 Undecided	1 2 3
	He acts like we are good friends	1 Agree 2 Disagree 3 Undecided	1 2 3
	He feels relax talking with me	1 Agree 2 Disagree 3 Undecided	1 2 3
	He make interaction very formal	1 Agree 2 Disagree 3 Undecided	1 2 3
	He dominates discussion	1 Agree 2 Disagree 3 Undecided	1 2 3
140	Indicate the extent to which you disagree or agree with the following statements		
	My Husband is a very good listeners	1 Agree 2 Disagree 3 Undecided	1 2 3
	My Husband can calmly discuss problems with me.	1 Agree 2 Disagree 3 Undecided	1 2 3
	My Husband try to understand my feelings	1 Agree 2 Disagree 3 Undecided	1 2 3
	My Husband seldom say negative things when angry.	1 Agree 2 Disagree 3 Undecided	1 2 3
	.My Husband patiently and sensitively listens to me talk without judging me.	1 Agree 2 Disagree 3 Undecided	1 2 3
	My Husband pays attention to me speak	1 Agree 2 Disagree 3 Undecided	1 2 3
	My husband makes it very easy to discuss my personal feelings	1 Agree 2 Disagree 3 Undecided	1 2 3
141	Are able to discuss Family Planning (FP) with your husband?	1 Yes (SKIP TO 144) 2 No	1 2
142	If No why is it so	Explain your answer.....	
143	Can you disagree with your husband	1 Yes	1

	decision on FP choice?	2 No	2
SCHOOL DROPOUTS OUTCOMES			
144	Were you in school or into some skills development training before marriage?	1 Yes 2 No (SKIP TO 147)	1 2
145	If yes, exactly what were you doing	1. Primary school 2. JSS 3. SSS 4. Hairdressing 5. Sewing 6. Others (Please specify).....	1 2 3 4 5 6
146	Were you interested/willing to continue your training after marriage?	1 Yes 2 No (SKIP TO 149)	1 2
147	If yes, what held you back from continuing with your training after marriage?	1 Child bearing and rearing 2 Husband did not allow 3 I lost interest 4 Marriage responsibilities 5 Domestic chores 6 Others (Please specify).....	1 2 3 4 5 6
148	If No what were your reasons	1. Child bearing and rearing 2. Husband did not allow 3. I lost interest 4. Marriage responsibilities 5. Domestic chores 6. Others (Please specify).....	1 2 3 4 5 6
RECOMMENDATIONS			
150	Do you think this study is important?	1 Yes 2 No Explain your answer in either case---------- --- --- --- --- ---	1 2 3

THANK YOU FOR YOUR TIME AND RESPONSES

GHANA HEALTH SERVICE ETHICS REVIEW COMMITTEE

In case of reply the number and date of this Letter should be quoted.

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My Ref. GHS/RDD/ERC/Admin/App/16/120
Your Ref. No.

Miriam Iddrisu Rahinatu
School of Public Health
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Legon

The Ghana Health Service Ethics Review Committee has reviewed and given approval for the implementation your Study Protocol.

GHS-ERC Number	**GHS-ERC 01/04/16**
Project Title	"Early Reproductive Health Choices and Associated Reproductive Health Practic and Outcomes among Women in Northern Region, Ghana"
Approval Date	23rd June, 2016
Expiry Date	22nd June, 2017
GHS-ERC Decision	**Approved**

This approval requires the following from the Principal Investigator

- Submission of yearly progress report of the study to the Ethics Review Committee (ERC)
- Renewal of ethical approval if the study lasts for more than 12 months,
- Reporting of all serious adverse events related to this study to the ERC within three days verbally ar seven days in writing.
- Submission of a final report after completion of the study
- Informing ERC if study cannot be implemented or is discontinued and reasons why
- Informing the ERC and your sponsor (where applicable) before any publication of the research findings.

Please note that any modification of the study without ERC approval of the amendment is invalid.

The ERC may observe or cause to be observed procedures and records of the study during and aft implementation.

Kindly quote the protocol identification number in all future correspondence in relation to this approved protoco

SIGNED.....
DR. CYNTHIA BANNERMAN
(GHS-ERC CHAIRPERSON)

Cc: The Director, Research & Development Division, Ghana Health Service, Accra