SCHOOL OF PUBLIC HEALTH

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REPRODUCTIVE COERCION AMONG PREGNANT WOMEN ATTENDING ANTENATAL CLINIC, AT THE HOLY FAMILY HOSPITAL, TECHIMAN

BY

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DECLARATION

I, Ibrahim Soale Friko, declare that with the exception of references to the work of other persons that I have properly recognized, this work is the product of my own supervised research work and has not been submitted to this University or elsewhere for another degree in full or in part.

Signature  4th November, 2021

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(STUDENT)

Signature  4th November, 2021

Dr. Deda Ogum Alangea

(Supervisor)

DEDICATION

I dedicate this work to my family and colleagues at the Holy Family Hospital.

ACKNOWLEDGEMENTS

I am most thankful to God for the life and strength offered me to effectively go through this program. I am very grateful to my supervisor, Dr. Deda Ogum Alangea, for the invaluable feedback, input and encouragement.

All School of Public Health lecturers deserve a heartfelt thanks for their encouragement, advice and information sharing.

I am grateful to the Holy Family Hospital management for giving me permission to conduct this study at the Ante-natal Clinic of the facility.

Finally, to my family, your support, affection and care during this time cannot be forgotten. God bless all of you.

ABSTRACT

Background: Despite the global recommendation of rights to reproductive health, women are still unable to exercise this autonomy for several reasons. Reproductive Coercion (RC) is any external conduct that hinders the autonomy of a person to make decisions regarding their reproductive health. It mainly affects women of reproductive age. RC comes in several forms such as pressuring a woman into getting pregnant, controlling the outcome of another woman's pregnancy, sabotaging another person's contraceptive use and compelling or coercing a woman to get sterilization.

RC is a global public health issue that adversely affects sexual and reproductive health, mental health as well as maternal and child health. So far, the greater number of studies on RC, its prevalence and associations emanate from studies conducted on populations in the U.S. In Ghana there is dearth of published information on RC as regards the prevalence rates. The objective of this study is to determine the prevalence of reproductive coercion and its associated factors among pregnant women attending antenatal care at Holy Family Hospital, Techiman.

Materials and Methods: A systematic random sampling method was used to recruit women attending ANC at the Holy Family hospital, Techiman, into the study. A structured questionnaire was used to capture relevant information on the socio-demographic, economic and reproductive characteristics, cultural views on RC, as well as the experience of RC and Intimate Partner Violence (IPV) which is any act of physical violence, sexual abuse/ coercion, stalking, and psychological/emotional abuse by a current or former intimate partner. This questionnaire had eight sections. Section 1 describes the individual factors such as age in completed years of the participant and her partner, her current relationship status, religion,

employment of participant and her partner, income and highest educational level attained by the participant and her partner.

Section 2 described other socio-economic characteristics and belief system of participants.

Section 3 described the reproductive and obstetric history of the participants. Sections 4 and 5 measured participants recent and lifetime experience of reproductive coercion from the current partner only. Section 6 measured respondents' experience of IPV in her current pregnancy. Section 7 and 8 measured respondents' experience of IPV in her current relationship and their lifetime experience of IPV.

Questionnaires were checked for errors and completeness before final entry into Microsoft excel and exported to Stata version 15.0 e (Stata Corporation, Texas, USA) for analysis. Descriptive statistics were determined for the population. Percentages were reported for categorical variables. Means and standard deviations were determined for continuous variables. Graphs and percentages were used to report on the experience of reproductive coercion. In addition, Pearson Chi-square or Fisher's exact test (when required) was used to determine the association between the dependent variable (experience of reproductive coercion) and each categorical independent variable (Age groups, educational level, relationship status, work and income, IPV). Finally, logistic regression models were used to test for association between reproductive coercion and independent variables. Statistical significance was determined at $p<0.05$.

The results showed that the proportion of respondents who experienced reproductive coercion was 25.5% (95% CI = 21.1% - 30.2%).

The results from a multiple regression of variables that showed a significant association with RC in the bivariate analysis revealed that factors that were significantly associated with RC included the following: age in years, relationship status, influence from external family on the number of children to have, tribe rewards women or couples for large families, personal believe that a woman who aborts an unwanted pregnancy is not a good woman, physical IPV in current pregnancy, overall physical IPV from current partner, sexual IPV in current pregnancy, sexual IPV from current partner, lifetime experience of physical IPV from previous partners, lifetime experience of sexual IPV from previous partners.

Controlling for the effect of all other variables, respondents who reported an experience of RC were 12.51 times more likely to report an experience of physical IPV from their current partner compared with those who had never experienced physical IPV from their current partners (aOR = 12.51; 95% CI = 1.53 – 102.34; p = 0.018). Respondents who reported an experience of RC were 5.42 times more likely to have reported a lifetime experience of sexual IPV from previous partners compared with those who had never had a lifetime experience of sexual IPV from previous partners (aOR = 5.42; 95% CI = 1.20 – 24.59; p = 0.028).

This study provided an important opportunity to initiate understanding of the prevalence and patterns of RC in the Ghanaian context and also serve as a foundation on which future research into RC in Ghana could be conducted. Findings of this study are useful for advocacy and improvement in women's reproductive health.

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ANC	-	Antenatal clinic
CS	-	Cesarean Section
IPV	-	Intimate Partner Violence
ICPD	-	international Conference on Population and Development
RC	-	Reproductive Coercion
SDH	-	Social Determinants of Health
SV	-	Sexual Violence
UNFPA	-	United Nations Fund for Population Activities

CHAPTER ONE

1.0 INTRODUCTION

1.1 Background

Reproductive Coercion (RC) is any external conduct that hinders the autonomy of a person to make decisions regarding their reproductive health (Grace & Fleming, 2016). It mainly affects women of reproductive age (Phillips et al., 2016).

The 1994 International Conference on Population and Development (ICPD) was a watershed moment in women's empowerment. Declarations made at the ICPD that are cornerstones of population and development programs included advancing gender equality and equity, the empowerment of women, the elimination of all kinds of violence against women, and ensuring women's ability to control their own fertility (UNFPA, 2013).

Exercising autonomy over one's sexual and reproductive health is essential, not only to the health and well-being of the individual, but to society in general (Starrs et al., 2018). The 2018 global action plan by the Guttmacher-Lancet Commission stressed the need for individuals to have control of their sexual and reproductive health decisions and also elaborated how this sexual and reproductive health and rights inured to overall health, well-being and prosperity (Hasstedt & Rowan, 2016).

RC is not a new phenomenon. However it was only recently defined in the literature as a concept in 2010 (Grace & Fleming, 2016). Currently most studies on RC emanate from North America (Falb et al., 2019) . RC comes in several forms such as pressuring a woman into getting pregnant, controlling the outcome of another woman's pregnancy, sabotaging another person's contraceptive use and compelling or coercing a woman to get sterilization (Tarzia et al., 2019).

RC has also been described to occur in two main realms, namely the interpersonal realm, and the structural realm. The interpersonal realm is where RC is directly exerted on a woman by another person or by other persons, regardless of the prevailing sociocultural context. In the structural realm, RC occurs as a result of a permissive sociocultural, economic, legal and political environment that allows or enables RC (Marie Stopes Australia, 2018). The underlying theme in both realms and in all subtypes of RC is that power and control are exerted over another person's reproductive health decision-making. Such control, may be exercised mainly through, physical violence, or and/or sexual assault, or other coercive strategies which may not necessarily be violent (Grace & Anderson, 2018).

The consequences and dynamics of RC are such that they adversely affect not only the reproductive and sexual health in the form of unintended pregnancies and sexually transmitted infections of individuals (Hasstedt & Rowan, 2016; Miller et al., 2014; Miller & Silverman, 2010), but they also produce adverse mental (Children by Choice, 2018; Lutwak, 2018), maternal, perinatal and infant health outcome such as low birth weight and perinatal morbidity (Pallitto et al., 2005).

So far, the greater number of studies on RC, its prevalence and associations emanate from studies conducted on populations in the U.S. These U.S-based findings have suggested different prevalence rates. However, the U.S, National Center for Injury Prevention and Control of the Center for Disease Control, states that a minimum of 9% of adult women in the U.S have experienced some kind of RC (Houry et al., 2017). Outside the U.S the prevalence of RC was reported as 12.1% of women ages 15-49 in Uttar Pradesh, India; 40% of female Family Planning clients in Nairobi; and 9.8% of married female adolescents in Dosso, Niger (Hill et al., 2019). In Côte d'Ivoire, a secondary analysis using data from a randomized control trial put the prevalence of RC at 18.6%. (Falb et al., 2019). In Ghana there is dearth of

published information on RC as regards the prevalence rates. The extent to which the findings in the U.S and elsewhere are applicable in the Ghanaian context is not clear.

The reported association of RC with IPV and its adverse consequences on various aspects of sexual, reproductive, maternal and child health (Grace & Anderson, 2018; Tarzia, 2018), provides an overwhelming public health reason to investigate the issue of RC. Evidence on the prevalence and associated factors will contribute to a better understanding of the concept in this setting. This knowledge can inform efforts towards promoting optimal overall health and well-being of women.

1.2 Problem statement

RC is a global public health issue that adversely affects sexual and reproductive health, mental health as well as maternal and child health (Grace & Anderson, 2018). Despite the global recommendation of rights to reproductive health, women are still unable to exercise this autonomy due to several reasons including violence. There is an evidence that a threat of physical violence from an intimate partner made women more likely to experience an unwanted pregnancy and less likely to adopt contraception (Stephenson et al., 2011).

An overwhelming majority of the research on RC prevalence rates is from the United States (US). Owing to the fact that studies in the US involved women from broadly varying settings, prevalence rates of RC in the US vary widely from as low as 5% (Miller et al., 2014), to as high as 40% (Issues, 2016). However the National Center for Injury Prevention and Control of the Center for Disease Control, state that a minimum of 9% of adult women in the U.S have experienced some kind of RC (Houry et al., 2017).

Outside the U.S the prevalence of RC was reported as: 12.1% among women ages 15-49 in Uttar Pradesh, India; 40% among female FP clients in Nairobi; and 9.8% among married female adolescents in Dosso, Niger(Hill et al., 2019) . In the West African sub region, there's

fewer published work on RC. In Côte d'Ivoire, one secondary analysis using data from a randomized control trial reported a prevalence of RC of 18.6% among 981 women aged 18 years and above (mean age of 37.4 years) who reported having a partner (Falb et al., 2019).

In Ghana, published information on RC prevalence rates, and associated features of RC such as the predominant types of RC perpetrated, the socio-economic characteristics of victims, the types of perpetrators and the connection of RC with IPV and reproductive health is lacking. The data routinely collected in the DHS also is unable to yield data on the phenomenon.

RC has dire reproductive health consequences such as unintended pregnancies (Miller et al., 2014), STIs and such resultant complications as pelvic inflammatory diseases, subfertility, genital tract malignancy (Hasstedt & Rowan, 2016; Miller et al., 2014; Miller & Silverman, 2010), and increased risk of pregnancy terminations including unsafe abortions (Breiding et al., 2015). RC is also associated with mental health challenges (Children by Choice, 2018; Lutwak, 2018), poor maternal and perinatal outcomes such as, substance abuse, low birthweight and increased susceptibility to perinatal mortality and morbidity (Pallitto et al., 2005).

Although researchers in other countries and international settings have shown the prevalence of RC and some associated factors, there's paucity of literature examining RC in Ghana. Gaps remain in identifying the prevalence of RC, its connection with IPV and the socio-economic and demographic characteristics of victims of RC in Ghana. Anecdotal information on the subject matter within the study area revealed that some women go through certain forms of coercion to either become pregnant or are prevented from accessing birth control services. This necessitated the need to establish the extent of the problem of pregnant coercion in the study area and provide the basis for further research.

1.3 Justification

The negative consequences of RC coupled with the lack of information and/or empirical research data on RC prevalence rates and associated factors in Ghana, makes it imperative that research into this area be done to generate knowledge that could contribute to a national discourse on generating data on the topic. Generating data on RC is essential because it will generate evidence on the burden of RC in a culturally appropriate context, that will inform stakeholders response to the scourge of RC in an evidence-based manner. While this study will be limited to the experiences of RC by pregnant women attending ANC at the Holy Family Hospital, Techiman, it will provide an important opportunity to begin to understand the prevalence and patterns of RC in the Ghanaian context and also serve as a foundation on which future research into RC in Ghana could be conducted.

1.4 Research questions

1. What is the prevalence of reproductive coercion among pregnant women who attend ANC at the Holy Family Hospital, Techiman?
2. What is the association between intimate partner violence and reproductive coercion among pregnant women who attend ANC at the Holy Family Hospital, Techiman?
3. What factors are associated with RC among pregnant women who attend ANC at the Holy Family Hospital, Techiman?

1.5 Objectives

1.5.1 General objective

To examine reproductive coercion and its associated factors among pregnant women attending antenatal care at the Holy Family Hospital, Techiman.

1.5.2 Specific objectives:

1. To estimate the prevalence of RC among pregnant women attending antenatal care at the Holy Family Hospital, Techiman
2. To investigate the relationship between RC and IPV among pregnant women attending antenatal care at the Holy Family Hospital, Techiman.
3. To determine the factors that are associated with RC among pregnant women attending antenatal care at the Holy Family Hospital, Techiman.

1.6 Conceptual Framework

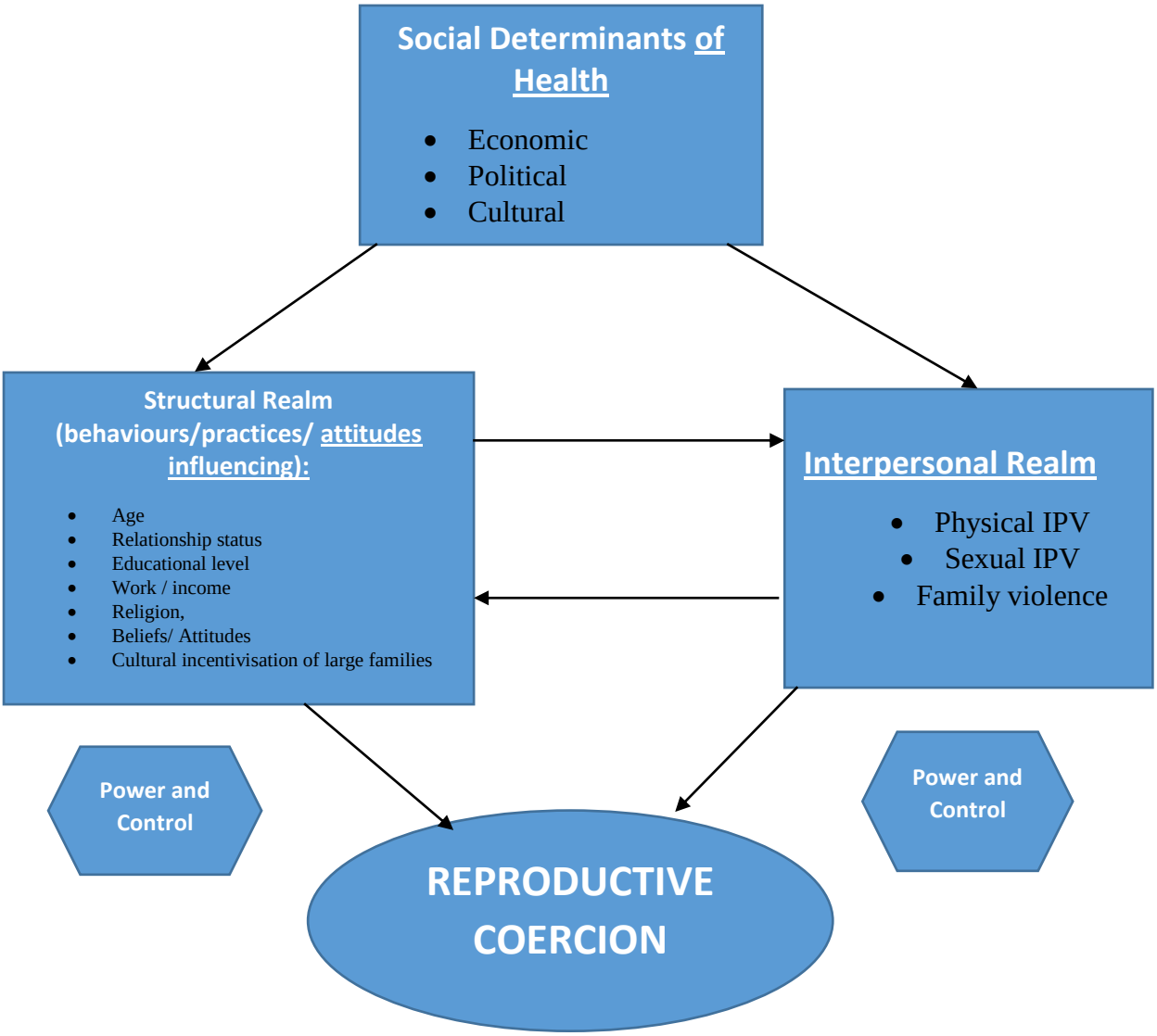

Figure 1 Conceptual Framework of factors associated with Reproductive Coercion (Marie Stopes Australia, 2018)

1.6.1 Narration of the Conceptual Framework

Reproductive Coercion as a phenomenon may be influenced by several inter-related factors. These factors will be considered from three broad perspectives, namely the social determinants of health (SDH), the interpersonal realm and the structural realm. The interaction among the SDH, structural and interpersonal realm of RC is demonstrated using a conceptual model adapted from Marie Stopes International, Australia (Marie Stopes Australia, 2018).

The pre-existing socioeconomic and political conditions within which people live, constitute the social determinants of health (SDH), defined by the United Nations as "the conditions in which people are born, grow, live, work and age" and "the fundamental drivers of these conditions." (CSDH, 2008). Studies on SDH suggest that existing social, economic and political policies can and do influence the health and wellbeing of individuals (Braveman & Gottlieb, 2014). Social structures that promote equality, respect and equity are associated with better health outcomes and well-being for individuals (Our Watch, Australia's National Research Organisation for Women's Safety, et al., 2015) .

Structural Realm of factors that lead to RC is influenced by, and operates within a broader framework of the preexisting social, economic, cultural and political conditions (Marie Stopes Australia, 2018). Examples of structural forms of RC are: cultural institutions and beliefs that denounce abortion and/or some methods of contraception, cultural interpretation and norms of 'motherhood' and 'fatherhood' that can unduly influence one's desire to have or not have children, community attitudes, gender inequality and beliefs that promote behaviors supporting violence. Other examples of structural RC are economic policies such as incentivization of child birth such as tax breaks that could drive coercive behavior, as well as government policies that detrimental to the ability of citizens to access sexual and reproductive health services including contraception, abortion and maternity services.

Structural RC is the permissive societal practices, behaviors and attitudes that interfere with another person's autonomous decision-making in relation to their reproductive health. Aspects of this realm to be assessed in this study includes factors as age, relationship status, educational level, and work/income, ethnic group, religion, beliefs and attitudes that support RC, as well as ethnic/tribal incentivization of large families.

Interpersonal Realm of factors that result in RC encompasses the intentional action by an individual or individuals to interfere with the autonomous reproductive health decision-making of another person, and is largely influenced by elements of structural RC (Marie Stopes Australia, 2018). Interpersonal RC be expressed under three conditions namely IPV, sexual violence (SV) and Family Violence (FV). Besides the intimate partner being the main culprit in RC, the other perpetrators could be a family member, or a family member of the partner (Falb et al., 2019). In the modified conceptual model, "power and control" is the common pathway by which the three elements of interpersonal RC exert RC. This study will assess two types of IPV: Sexual and physical IPV.

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction

Reproductive coercion is any external behaviour that conflicts with a woman's ability to make autonomous decisions regarding reproduction (Moore et al., 2010). In this regard, it is a form of reproductive control where mostly the intimate partner (or other perpetrators) impose their reproductive intention on the woman without regard to her fertility wishes.

In terms of terminology, many other authors recognized and accepted the fact that the term RC is commonly used in literature. However, others argued that, the purposive nature of the behaviour and the instrument of fear, power and control that are pivotal to this form of undue influence, perhaps a more appropriate term would be "reproductive abuse" (Tarzia et al., 2019).

Reproductive coercion comes in two main forms, namely, birth control sabotage and pregnancy coercion. Pregnancy coercion has to do with the situation whereby the decision to carry the pregnancy to term or to terminate the pregnancy is made, devoid of the woman's autonomous choice (Grace & Fleming, 2016). The pregnancy coercive behaviours include the following: threatening to hurt a partner who does not agree to become pregnant, threatening to leave a partner for someone else if she does not become pregnant, forcing a female partner to continue a pregnancy through threats or violence. Other behaviours are, forcing a female partner to end a pregnancy through threats or violence, and committing acts of violence in an attempt to cause a miscarriage (Fay & Yee, 2018).

Birth control coercion on the other hand may take the form of perforating or removing a condom, discarding oral contraceptive pills, forcefully removing intrauterine contraceptive devices and contraceptive patches (Trawick, 2012). Other forms of birth control coercion

include the following; not withdrawing penis during intercourse when planned, and restricting access to family planning services (Fay & Yee, 2018).

RC disproportionately affects women. It is also often associated with, Intimate Partner Violence and Family Violence (Tarzia, 2018). RC is not restricted to adult women in the reproductive age. In addition to the poor reproductive and sexual health outcomes that RC confers on adolescents, it has also been found to be associated with other kinds of relationship abuse such as cyber dating bullying (Dick et al., 2014; Northridge et al., 2017).

There's a strong link between human rights and family planning as confirmed by several UN conferences starting with the 1968 international conference on human rights and three other UN conferences on population in 1974, 1984 and 1994 (Hardee et al., 2017). In 2008, one of the three broad categories of reproductive rights derived from the UN Committee on Economic, Social, and Cultural Rights article published in 2000 states "Right to reproductive self-determination (right to bodily integrity and security of person and the rights of couples and individuals to decide freely and responsibly the number and spacing of their children)".

The United Nation adopted the Declaration on the elimination of violence against women. Violence against women was defined as "any act of gender-based violence that results or likely to result in physical, sexual or psychological harm or suffering to women including threats of such harm, coercion or arbitrary deprivation of liberty whether occurring in public or private life" (UNECA & African Centre for Gender and Social Development, 2010).

At the core of the 2018 Guttmacher-Lancet Commission report on the essence of sexual and reproductive health and rights to overall health, wellbeing and prosperity, was the need for people to be able to control those rights (Hasstedt & Rowan, 2016). In Ghana, 77% percent of women participate in making decisions regarding their own health care (GSS, 2015). Evidence from the recent DHS report show that Ghanaian women prefer 4.3 children each

compared to Ghanaian men who prefer 4.5 children each. However Ghanaian women have about 0.6 children more than their ideal number, implying that the total fertility rate of 4.2 children per woman is 17 percent higher than it would be if unwanted births were avoided. Therefore, to study and address RC issues is essential to advancing comprehensive reproductive health in Ghana.

Although a decision on the number, timing and spacing of children is the right of couples, it must be devoid of any form of coercion of the woman. Of the wide range of socio-culturally constructed values, expectations and obligations that pregnancy and childbearing impose on the woman, the biological demands alone is enough to confer on women the right to make autonomous decisions regarding their bodies. On the other hand, pervasive pro-natalism in the social context leaves women feeling inadequate and unfulfilled, without their own children (Petersen, 2004). Perhaps, such practices as dowry, female genital mutilation, polygamy and forced marriages sets the stage for the commodification of women (McCloskey et al., 2016) which in turn might promote reproductive coercion. In Ghana, about 70% of married women are in marriages where a bride price was negotiated and paid for (GSS, 2015).

The influencers of RC may further be described under two main domains, namely, structural RC and interpersonal RC. Structural RC refers to the permissive societal practices, behaviors and attitudes that interfere with another person's autonomous decision-making in relation to their reproductive health (Marie Stopes Australia, 2018). Examples of structural forms of RC are: cultural institutions and beliefs that denounce abortion and/or some methods of contraception, cultural interpretation and norms of 'motherhood' and 'fatherhood' that can unduly influence one's desire to have or not have children, community attitudes, gender inequality and beliefs that promote behaviors supporting violence. Other examples of structural RC are economic policies such as incentivization of child birth such as tax breaks

that could drive coercive behavior, as well as government policies that are detrimental to the ability of citizens to access sexual and reproductive health services including contraception, abortion and maternity services.

Interpersonal RC is the intentional action by an individual or individuals to interfere with the autonomous reproductive health decision-making of another person, and is largely influenced by elements of structural RC (Marie Stopes Australia, 2018).

Reproductive coercion may be perpetrated by other players such as, the parents, in-laws and peers, or even as part of criminal activity (Rowlands S, 2019). The focus of the study, however, is reproductive coercion exerted by the intimate partner. The growing body of studies on reproductive coercion and its association with adverse reproductive health consequence and intimate partner violence have largely taken place in in North American populations settings. How these findings apply in a country like Ghana in sub-Sahara Africa in not clear (Falb et al., 2018).

2.2 Prevalence of RC

There is paucity of research into reproductive coercion, both in Ghana and internationally. Although literature on RC is only just emerging, a global measure of the magnitude of RC is demonstrated in a number of studies which put the prevalence between 15% and 25%(Clark et al., 2014; Miller et al., 2010). So far, the majority of research into RC has been conducted in the US. Prevalence rate of RC in the US vary widely from as low as 5% (Miller et al., 2014) to as high as 40% (Norton et al., 2016) owing to the fact that the various studies sample women from widely different settings; from large population studies, high school students and women of low socio-economic status to women seeking family planning and reproductive health care services. An indication of the overall prevalence of RC in the US is given by the National Center for Injury Prevention and Control of the Center for Disease

Control, who stated that a minimum of 9% of adult women in the U.S have experienced some kind of RC (Breiding et al., 2015), based on a representative sample of 9000 women surveyed.

In another survey in Pennsylvania involving 3539 females between the ages of 16 and 29 years of age who were seeking care in 24 rural and urban family planning facilities, 5% reported experiencing recent RC (defined in the study as RC within the past 3 months) (Miller et al., 2014). Twenty-one percent (21%) of those who reported recent RC also reported unintended pregnancy in the past year, regardless of the outcome of the pregnancies.

Of 641 women between the age range 18 and 44 years surveyed who were seeking routine obstetrics and gynecology care at a large obstetrics and gynecology clinic in Rhodes Island in the U.S, 16% reported a lifetime experience of RC.

Of 1319 females between the ages of 16 and 29 years surveyed among care-seekers in 5 family planning clinics in California, U.S 19% experienced pregnancy coercion, whereas 15% reported birth control sabotage (Miller et al., 2010). A study on how RC and relationship abuse impact the care-seeking and sexual health behaviors of 550 sexually active High school students of varying demographic background in California estimated the overall prevalence of RC at 12% in the previous 3 months (Hill et al., 2019). Prevalence rates as high as 38% have been reported in a study involving 66 women aged between 18 years and 45 years from a low socio-economic status attending reproductive health clinic in Pennsylvania (Petersen, 2004).

In Australia, a gender neutral research of clients accessing counselling services put the prevalence of RC at 12.5% for participants under 20 year of age as opposed to 21.8% for clients aged between 20 and 29 years of age (Children by Choice, 2018). Again in Australia,

a cross-sectional study of 230 adult women in a general population put the prevalence of RC at 10% (Tarzia et al., 2017).

Survey data across three populations in three different countries showed the following prevalence of RC; in the Doddo region of Niger, 9.8% of 1139 married adolescents aged 13-19years experienced RC and Nairobi, Kenya 40% of 142 women and girls aged 15-49 years seeking family planning counseling across four clinics reported RC, and in Uttar Pradesh, India, a prevalence of 12.1% was reported among 1770 women aged 15-49 years (Silverman et al., 2019). In rural Côte d'Ivoire 18.6% of 981 women reported a lifetime experience of RC (Falb et al., 2019). Covert Contraceptive Use (CCU), the practice of using a family planning method without the knowledge of the other partner is suggestive of the extent to which women lack the ability to independently exercise their reproductive autonomy (Biddlecom & Fapohunda, 1998). Although there is no available published study on RC in Ghana, a prevalence of 34% covert contraceptive use (CCU) was recorded among 300 women attending a Reproductive health clinic in Sunyani, Ghana (Baiden et al., 2016).

2.3 Intimate Partner Violence and RC

Any act of physical violence, sexual abuse/coercion, stalking, and psychological/emotional abuse by a current or former intimate partner (spouse, boyfriend/girlfriend, dating partner, or ongoing sexual partner) is termed IPV (Chisholm et al., 2017;Breiding et al., 2015). Despite the global recommendation of rights to reproductive health, women are still unable to exercise this autonomy due to several reasons including violence. The prevalence of IPV perpetrated by males against women ranges between 15 and 76% across multiple global settings (García-moreno & Türmen, 2019).

There is evidence that a threat of, or an experience of physical violence from their intimate partners compromised and/ or limited women's decision-making and/or ability to negotiate

sex and contraception. This made them more likely to experience an unwanted pregnancy and less likely to adopt contraception (Stephenson et al., 2011). Beside the association of RC with the threat of physical violence, other evidence suggest that RC overlaps with cases of established IPV, and domestic violence (Tarzia, 2018). Women were more likely to suffer intimate partner violence if they became pregnant against their husbands wishes (McCloskey et al., 2016).

Multiple studies exist that demonstrate the significance of the intersection between IPV and RC. It is known that IPV is consistently associated with increased risks of such elements of reproductive coercion as abortions and unintended pregnancies particularly in younger women (Miller et al, 2010; Falb et al., 2019; Hill et al., 2019; Miller et al., 2019).

A systematic review of RC in international settings showed several studies that reported significant findings on the intersection between IPV and RC (Grace & Fleming, 2016). The review reported that women who had reported an experience of IPV also had higher odds of experiencing some form of RC, notably pregnancy coercion or birth control sabotage. This finding is crucial as it raises a point in support of an argument that the correlation between IPV and RC perhaps explains some of the association between IPV and unintended pregnancy.

In the US, available studies show associations between RC and IPV, as well as with unintended pregnancy (Bauleni et al., 2018). RC may also exist in relationships where no other forms of abuse exist (Tarzia et al., 2019).

A Pennsylvanian study among female family planning service clients age 16-29 years reported a 46% lifetime IPV experience, 5% recent RC experience and a 12% report of unintended pregnancy in the past one year (Miller et al., 2014). A major limitation of this study is that, the researchers focused primarily on the relationship between recent RC, IPV

and unintended pregnancy in the past twelve months. They didn't clearly investigate and or establish a direct relationship between IPV and RC. Considering the fact that unintended pregnancy is an important consequence of RC, it would have been more instructive if the study had considered the association between lifetime experiences of IPV and RC.

A study in Northern California on efficacy of a family-planning-clinic-based intervention to address intimate partner violence (IPV) and reproductive coercion showed a significant reduction (71%) in the odds of pregnancy coercion among participants with a baseline report of IPV in the past three months (Miller et al., 2011). This study was important because, not only does it show a connection between IPV and pregnancy coercion or RC for that matter, it also raised the question of whether IPV screening should be included in the standard of care offered at family planning clinics. This question gives credence to the findings of a qualitative study on how health practitioners in a large Australian public hospital identify and respond to reproductive abuse. The study was a hospital-based, semi-structured interview of 17 health practitioners across different specialties and data examined thematically. The study showed that healthcare practitioners were only able to identify reproductive abuse based on their intuition which in turn was informed by their clinical experience (Tarzia et al., 2019). Considering the evasive nature of IPV, and even more RC, in predominantly pronatalist sub-Saharan African settings such as Ghana, a more aggressive screening will be required to identify cases for support.

A cross-sectional, anonymous survey on reproductive coercion and co-occurring intimate partner violence in 641 women between the ages 18 and 44 years seeking routine care at a large Obstetrics and Gynecology clinic in Rhode Island in the U.S found that 16% reported a lifetime experience of RC (Clark et al., 2014). The study also found that 32% of the women who reported RC also reported that IPV occurred in the same relationship. This study, however did not report the relationship between lifetime experience of IPV and RC. That

notwithstanding, the study also showed that single women were more likely to suffer RC and co-occurring IPV.

Of 550 sexually active high school students between the ages of 14 and 19 years who participated in a study to examine how RC and relationship abuse affects young females' care-seeking and sexual health behaviors, 12% reported recent RC and 17% reported recent physical or sexual adolescent relationship abuse (Hill et al., 2019). This study adopted a secondary analysis of a cross-sectional baseline survey data from sexually active female students who sought care from eight student health centers across multiple cities in northern California. It is entirely possible that some of the students may have changed relationships within the previous three-month time frame considered by the study, and for that matter their experiences of RC and IPV may have occurred with different partners. The study however did not provide evidence of a concurrent relationship between RC and IPV although it examined any experience of RC and IPV in the previous 3 months.

A qualitative study in the U.S on male reproductive control among 71 women aged between 18 and 49 years recruited from an abortion clinic, a domestic violence center and a family planning clinic who have all experienced intimate partner violence found that about 74% also suffered RC (Moore et al., 2010). The study adopted a face-to-face, semi-structured in-depth interview and interestingly found that the pathways that pressured the woman into getting pregnant involved verbal threats, contraceptive sabotage and unprotected forced intercourse. Once pregnant, the male partner then resorted to threatening behaviors in a bid to ensure that the woman did what he desired with the pregnancy.

A study on the coercive forms of sexual risk and associated violence perpetrated by male partners of female adolescents, conducted in Greater Boston, showed that 45% of 356 female

participants (aged 14–20 who attended adolescent health clinic) had a lifetime experience of IPV. 31% those who reported IPV also reported RC (Silverman et al., 2011).

A WHO Multi-country Study on Women's health and Domestic Violence which sought to explore how IPV relates to unintended pregnancy and abortion in 10 primarily low- and middle-income countries showed that there were higher odds of unintended pregnancy and abortion in women with a history of IPV (Pallitto et al., 2013). Data from 17, 518 women participants from 15 centers in the 10 countries were analyzed. When all sites were combined, the proportion of ever-pregnant women who had an abortion according to their experience of IPV was 30% whereas the proportion of unintended pregnancy that could be attributed to IPV was 15%. It is worth noting that the socio-demographic spectrum of countries in this study is similar to that across the West African sub region. Therefore, this study unlike the U.S-based studies (whose demography is significantly different to that of West Africa) offers another interesting perspective with regard to relevance and application in the West African sub-region in general and Ghana in particular.

Of 49.8% of rural women who reported a lifetime experience of IPV in Côte d'Ivoire, 18.6% of them also admitted to experiencing RC (Falb et al., 2019). This was a secondary analysis of RC and IPV among rural women in Côte d'Ivoire using data from a baseline survey of a randomized control trial. The study which involved 1,273 participants, also found that compared to women who did not experience IPV, women who reported lifetime IPV had a 3.7 increase in odds of reporting RC. This was important because, perhaps it was one of the first published works that clearly scrutinized the connection between IPV and RC in a rural setting in West Africa. It therefore provided a crucial basis on which to acquire a much-more relevant perspective on the relationship between IPV and RC in the West African context.

The studies reviewed in this section showed a clear linkage between IPV and RC. However, with the exception of the Cote d'Voire study (Falb et al., 2019), and the WHO study (Pallitto et al., 2013), the other studies mostly considered recent IPV and experience of RC. This situation does not allow a clearer understanding of the association between the lifetime experience of IPV and RC which is more likely to be stronger considering that IPV has long-term effects on women.

2.4 Factors associated with RC

Although much of the research on RC is focused on how RC plays out at the interpersonal level, equally important is the interplay of the structural elements that create the permissive environment for behaviors associated with RC. These structural elements are social, economic and cultural in nature. There's evidence to the suggestion that the protection of women's economic, social and political rights and the equitable distribution of resources and power between women and men leads to reduced rates of violence against women (Braveman & Gottlieb, 2014). Applying a Social Determinants of Health approach to RC is important as it helps to uncover some of the underlying drivers of RC.

A U.S-based study (Clark et al., 2014), involving 641 women between the ages of 18-44 years who attended a general obstetrics and gynecology hospital in Rhode Island reported the following results; The women who reported RC were also more likely to be black, multiracial or of other racial background and were less likely to be currently pregnant; RC was also more likely to be reported by women who were high school graduates or who had attended some but not necessarily completed college. Furthermore, the study showed (after adjusting for such variables as race, ethnicity, current relationship status, and pregnancy in multiple logistic regression) that single or dating women were two times more likely to report RC as compared to women in a committed relationship, whereas women who were unsure of their relationship status were six times more likely to admit RC. Of those who reported some form

of RC, fewer were currently pregnant and also fewer were did not have children. The study however showed no evidence of how the employment status or economic empowerment of the participants influenced their experience of RC.

RC was also more likely to be reported by women whose educational level was below high school according to a study of 3539 participants aged 16 – 29 years attending family planning clinics in Pennsylvania (Miller et al., 2014). This contrasts with the findings in Rhodes Island, U.S which showed that RC was rather more likely to be reported by women who were high school graduates or who had attended some but not necessarily completed college (Clark et al., 2014). However, both studies were consistent in their findings that women who were single or were dating, Black or multiracial in ethnicity were more likely to report RC compared to women who were in a serious relationship or who were married, and also that married women were least likely to report RC (Miller et al., 2014). Again, both studies did not investigate the relationship between the income and RC.

There's scant data that specifically links RC with gender pay parity. However, using violence against women as a proxy, a link between RC and some economic factors suggests, albeit theoretically that, the participation of women in credit programs or other income-generating activities tends to empower women by strengthening the economic roles. The underpinning assumption is that strengthening women's economic roles gives them autonomy and control over important decisions that directly affects them and their families (Schuler, 1996). A related study also showed a favorable relationship between women's economic empowerment and decreased IPV (Vyas, 2009). Evidence from the WHO multi-country study on women's health and domestic violence found no association between IPV experience and employment status (Abramsky et al., 2011). In contrast, a study in the central region of Ghana reported higher odds of past year IPV experience among women who were employed (Alangea et al., 2018).

There's also a strong body of research that suggests that, gender pay parity correlates with reduction in violence against women, and also that addressing the gender pay gap improves the health and well-being of victims experiencing violence (Aizer, 2010; Peprah & Koomson, 2013).

Many tax systems across the world exhibit gender bias, (Stotsky, 1997). This leads to a reduction in the levels of disposable income available to women. The tax system is mostly demonstrable under interpersonal RC, (Aizer, 2010) however, an example of how the tax system can permit RC from a structural perspective is demonstrated by a tax credit reform introduced by the British Government in 2017 (Brocklehurst, 2017). This policy, sometimes called the "rape clause", prevents a mother from claiming tax rebates on any other child apart from her first two children unless she can demonstrate that conception was as a result of "a sexual act which they didn't or couldn't consent to" or that at the time of conception the mother was "in an abusive relationship, undergoing control or coercion by the other parent of the child (Glosswitch, 2017). This policy places an undue pressure on the woman in deciding whether to continue with an unplanned pregnancy or not (Revesz, 2018).

Findings from the 2014 Ghana Demographic Health survey report, point to the suggestion that the gap between wanted and observed total fertility rates decreases with education and, there is an inverse relationship between wanted fertility rates and wealth. Women with no education have 0.7 children more than they want, compared with 0.3 children among women with a secondary or higher education. Although there are no clear patterns by wealth, women in the second wealth quintile are notably more likely to want to limit the number of children.

A secondary analysis of data on 1,273 women revealed that a smaller percentage of Married women (16.2%) in rural Côte d'voire reported RC compared to women who were living with a partner but not married (28.9%) or women who were not living with a partner (31.5%) (Falb et al., 2019). Furthermore, women who had no formal education reported (15.2%) less

RC compared to women who had primary education (28.1%) and secondary education or higher (23.8%). Participants who had never been pregnant had 2.2 times the odds of RC compared to women who had four or more pregnancies. Older age was associated with reduced odds of reporting RC. The relationship between religious persuasion and RC, found that Muslims and Traditionalists were less likely to report RC compared to Christians. Evidence to explain this pattern is lacking.

In a review of RC across multinational locations, it was revealed that in addition to IPV, some of the other risk factors associated with RC were higher literacy levels, younger age, lower parity and living with in-laws (Grace & Fleming, 2016). Although the authors of the review concluded that the impact of levels of education being a risk factor or protective for RC was conflicting, they reported that some of the studies reviewed suggested that that women with higher levels of education stood a higher risk of in-law perpetrated RC (Gupta et al., 2012), whereas higher parity and co-sanguinity however offered protective rather than risk factors for RC (Clark et al., 2014).

2.5 Summary

The review of literature on reproductive coercion revealed that there is paucity of information on the subject matter in the study area and in Ghana as a whole. There was also paucity of information on the subject matter in the sub-Saharan region compared to other regions. The gap in knowledge about the subject matter necessitated the interest to learn about the problem as well as estimate its prevalence and the factors associated with it. The study would provide a baseline information for other studies.

CHAPTER THREE

3.0 METHODS

3.1 Introduction

This chapter presents the methods and procedures that will be employed in this study. It includes the study design and study location, study population, sample size, sampling techniques, data collection techniques and tools, ethical considerations and data processing and analysis.

3.2 Study design

The study used a cross-sectional study to examine the experiences of and prevalence of reproductive coercion among pregnant women who attended ante-natal care clinic at the Holy Family Hospital, Techiman in October/November, 2020. The study made use of a quantitative research approach for data collection and analysis.

3.3 Study Location/Area

The study was conducted at the Holy Family Hospital, located in Techiman, the capital of the Bono East region Ghana. Techiman has a population in excess of two hundred and four thousand (204, 000) (Ghana Statistical Service (GSS), 2013). Sixty percent (60%) of the population live in an urban locality whereas forty percent (40%) live in some rural localities. Furthermore, fifty-two percent (52%) of the population are females. Techiman is bordered by four other districts namely, Wenchi, Nkoranzah, Techiman North and the Offinso. The predominant economic activities in Techiman are commercial trading of a wide variety of goods and services, such as agricultural products and transportation. Besides commercial trading, a significant portion of the rural community is largely agrarian.

The Holy Family Hospital, from its humble beginning in 1953 as a Maternity health post is now a fully-fledged, 303-bed capacity hospital, with secondary level accreditation. The

hospital is part of the National Catholic Health Service (NCHS) and also a member of Christian Health Association of Ghana (CHAG). The hospital has staff strength of 625 of various professionals. The hospital offers a range of clinical care in specialties such as Obstetrics and Gynecology, Pedicatrics, General Surgery, Orthopedics, Internal Medicine, Ophthalmology, Ear, Nose and Throat (ENT), Urology Radiology and Emergency Medicine. The hospital also offers laboratory and pharmacy services as well as Out-patience department (OPD) services and other preventive and health promotion services not only for the people of Techiman, but also to the neighbouring districts of the Northern sector of the country as well (Website: Holy Family Hospital, Techiman, n.d.).

The Obstetrics and Gynecology (OB/GY) department where the study took place consist of the Antenatal clinic, labour ward, lying-in ward, general OB/GY ward and the post-operative ward. Together Obstetrics and Gynecology wards have a bed capacity of 91 beds. With regard to Obstetrics and Gynecology services, Holy Family Hospital records a yearly average of 2,000 new antenatal care (ANC) registrants, about 29,000 ANC attendance, about 4,500 deliveries, and about 2,000 major surgeries.

There are several other health facilities in the Techiman municipality that provide ANC services. These facilities come in the form of maternity homes, privately run clinics and hospitals as well as the Techiman Health Center. However, HFH, Techiman was selected for the proposed study because it is by far the biggest in terms of the number of ANC clients and the best organized in terms of implementation of the WHO-recommended ANC protocols. HFH, Techiman is also the main referral center for ANC clients within the Techiman municipality and adjoining areas.

3.4 Study Population

The study population consisted of all pregnant women of reproductive age 18 years and above attending Antenatal clinic in the study area (Holy Family Hospital). The study worked with reproductive age of 18 to be able to seek direct consent as those below 18 years may need assent. The desired sample was selected from these pregnant women seeking antenatal care from the Holy Family Hospital in October/November, 2020.

3.4.1. Inclusion Criteria:

Pregnant women who were 18 years of age or older and who attended ANC at the Holy Family Hospital, Techiman, during the proposed data collection period and, who gave an informed consent were eligible to participate in the study.

3.4.2. Exclusion Criteria

1. Pregnant women in labour.
2. Pregnant women actively experiencing an obstetric emergency during the data collection period.

3.5 Sample Size Calculation

The total number of ANC registrants in the year 2018 was used in calculating the required sample size for this study because the figures for 2019 was not available as at the time of commencing this proposal. For this Study the Yamane's formula, (Singh, 2014) was used to determine the sample size.

- With a population, N= 1949 ANC registrants at the Holy Family in the year 2018 and 95% confidence level (α=0.05)
- Margin of error (e) = 0.05

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

$$n=\frac{1949}{1+1949(0.05)^2}$$

n= 332

- However, to cater for non-response rate, a 10% upward adjustment of the sample size was done. Thus, 1.1 × 332 = 365. Therefore, a minimum sample of 369 women who attended ANC were surveyed in this study.

3.6 Sampling Method

A simple random sampling method was used to recruit women attending ANC into the study. Data were collected within one month. Hence the overall sample size (369) was divided by the number of ANC clinic days (Monday to Friday) in the month (20 days) of data collection to achieve daily- sample sizes (365/20= 19). All pregnant women who attended ANC were contacted, counselled and had the study introduced to them after going through their routine services.

Numbers between 1-10 were written on pieces of paper, folded and kept in a box. An independent person was asked to pick one. One the first day, 2 was picked, every second person was contacted and consented. Those who consented were interviewed. The number which was picked determined the sequence or interval of the selection of the women. This process was repeated each day until the sample size was met. The expected number of interviews to be conducted on each day was estimate at 19, however, due to variation in the ANC attendance, an average of 25 interviews was recorded. This reduced the data collection period.

3.7 Data Collection Tools

A structured questionnaire (appendix 3) was used to elicit information from study participants. This questionnaire had eight sections. The first part of the questionnaire focused on Individual characteristics of participants. The other sections elicited information of

reproductive coercion and Intimate partner violence, Partner Characteristics, Reproductive Factors, and Sociocultural Factors. Before administration of questionnaires, the aim of the study was explained to all respondents to ensure there was full comprehension and to rule out any form of ambiguity. The questionnaires were administered by the principal investigator with the help of three trained research assistants on a one-on-one basis. The questionnaires were administered in English Language for literate women and translated into Twi for non-English literate women. Each questionnaire took approximately 30 minutes to complete.

The questionnaire were adapted from previously published studies which had questions assessing for reproductive coercion, reproductive autonomy, and intimate partner violence (Clark et al., 2014; Miller et al., 2010; Upadhyay et al., 2017).

Pre-testing of the data collection tool/questionnaire was done at the ANC clinic of one of the health facilities in the Techiman municipality, other than the Holy Family Hospital, Techiman. Fifteen pregnant women who meet the inclusion criteria were systematically selected to participate in the pre-testing which assessed the reliability of the questionnaire, its validity as a data collection tool and also enabled the research team to make needed changes with regard to the manner in which some questions were asked. The principal investigator and the research assistants then conferred to finalize the questionnaire for data collection.

The questionnaire had eight sections. Section 1 described the individual factors and looked at the ages in completed years of the participant and her partner, her current relationship status (married, in a relationship but not married, single/no relationship), the duration of the current relationship, religion (Christian, Muslim, Traditionalist, or other). It also took a look at the employment status (employed or employed) of participant and her partner, and if she had earned any income in the past twelve months and how much in Ghana Cedis she earned on the average in a month. The highest educational level attained by the participant and her

partner (no formal education, primary level, junior high, senior high, post high, tertiary) was also obtained.

Section 2 described socio-economic factors such as: whether the participant lived with extended family members, and any external family influence on how many children that she and her partner intended to have; The inheritance system or custom (matrilineal or patrilineal) observed by the partner was been obtained; preferred fertility before and after the influence of the partner desire for more children after the current pregnancy.

Ethnic/Tribal incentivization of large families were obtained via two items in a binary variable where an affirmative response to any of them were coded as ethnic/tribal incentivization of large families. The two items were: Your tribe rewards women or couples for large families e.g. "badudwan", and Your partner's tribe rewards men or couples for large families e.g. "badudwan".

Beliefs and attitudes that support RC were determined from a set of six items in a summary binary variable. An affirmative response to any of the six items were coded as beliefs and attitudes that support RC. The six items were whether participant thought that a "good woman" was the one who had many children, her community people thought that, a "good woman" was the one who had many children, she believed that, a "real man" was the one who gave birth to many children, her community people thought that, a "real man was the one who gave birth to many children, she believed that, a woman who aborted an unwanted pregnancy was not a "good woman", her community people thought that, a woman who aborted an unwanted pregnancy was not a "good woman".

Section 3 described the reproductive and obstetric history of the participants. The following information were obtained, gravidity, parity, number of children currently alive and dead as well still births. Information such as the number of abortions (spontaneous and voluntary),

prior Cesarean section, or gynecological history, and any previous use and type of contraceptive method and whether the current pregnancy was desired were also be sought.

Section 4 measured participants experience of reproductive coercion from the current partner only. This were determined from a set of eighteen items which were divided into two main categories namely, pregnancy coercion (made up of nine items) and birth control sabotage (made up nine items). Questions on pregnancy coercion from current partner included: pressure from current partner to become pregnant, partner told respondent not to use contraception, partner told respondent that he would have a baby with someone else if you didn't get pregnant, partner told respondent that he would leave you if she did not get pregnant, partner tried to pressure respondent with words, promises, or mean comments to get her to become pregnant, partner hurt respondent physically because she did not agree to get pregnant, you ever hid birth control from your current partner because you were afraid he would get upset with you for using it. Questions on birth control sabotage included: partner ever took off the condom during sex so respondent would get pregnant, partner ever put holes in the condom so respondent would get pregnant, partner ever broke the condom on purpose so that respondent would get pregnant, partner ever made you have sex without a condom so that respondent would get pregnant , partner ever refused to use a condom after respondent agreed he should use one, partner ever took your birth control (like pills) away from respondent so she would get pregnant, ever clearly told respondent to not utilize Family Planning services, partner ever kept respondent from going to the Family planning clinic (e.g. refused to give you money and or transportation) to get birth control so she would get pregnant.

Section 5 measured participant's lifetime experience of RC, and will employed the same questions as in section 4.

Section 6 measured respondents experience of IPV in her current pregnancy. A set of eight questions derived and modified from a previously published study was employed to assess IPV (Alangea et al., 2018) . These eight questions were divided into two sections, namely, Physical IPV and Sexual IPV. Questions on Physical IPV in the current pregnancy included: partner had threatened to use or actually used a gun, knife or other weapon in this current pregnancy, partner had kicked, choked, dragged, burnt you, partner had pushed or shoved respondent, partner had hit respondent with a fist or something that could hurt her physically, partner slapped respondent or thrown something at her in this current pregnancy. The questions asked under Sexual IPV included: partner physically forced respondent to have sex when she did not want to do, partner used threats or intimidation (but not physical force) to get respondent to have sex when she did not want to. partner forced respondent to do something else sexual that she did not want to do.

Section 7 measured respondents experience of IPV in her current relationship and will employed the same questions in section 6.

Section 8 measured the respondent's lifetime experience of IPV and also employed the same questions in section 6.

3.8 Study Variables

The variables considered in this study are described below.

3.8.1 Dependent variable

The dependent variable measured in the study was participants experience of reproductive coercion. A set of eighteen questions, derived and modified from a previously published study were employed to assess RC (Clark et al., 2014) . These eighteen questions were divided into two sections, namely, Pregnancy coercion (9-items) and Birth control sabotage (9-items). For each of these items, participants had to answer "yes" or "no". RC was defined

as a "yes" to any of the eighteen questions. Prevalence of RC was estimated by summing all the "yes" responses using the eighteen list of items on pregnancy coercion experience and birth control sabotage. A dummy variable was created to generate a binary outcome for reproductive coercion by summing up all the "yes" responses from the eighteen list of items that measured pregnancy coercion and birth control sabotage within the population of interest.

3.8.2 Independent variables

The independent variables were measured and categorised are as follows:

The participants' experience of IPV, sexual or physical IPV. IPV were defined as a "yes" to any of the eight questions assessing IPV (Alangea et al., 2018). Sexual IPV were defined as when a respondent answered 'yes' to any of the 3 questions assessing sexual IPV. Physical IPV were defined when a respondent answered 'yes' to any of the 5 questions assessing physical IPV.

Age of the participants were in completed years. It was also categorized into the following groups in further analysis: 18-20, 21-30, 31-40, 41-45.

Relationship status was categorized as, married, in a relationship but not married, and single/no relationship.

Educational level was grouped into no formal education, primary, junior high school, senior high school, post- high school and tertiary.

Work was classified as employed and unemployed.

Income was described as "being involved in any economic activity in the past twelve months, having earned any income in the past twelve months" or not and amount earned in Ghana cedis.

3.9 Quality control

To ensure data integrity, consistency and accuracy, three research assistants were selected and trained on the objectives of the study, interviewing skills, hospital entry ethics, translation of questionnaire into various local languages, confidentiality and assurance of privacy during interviews. The entire questionnaire administration was closely supervised by the principal researcher to ensure that relevant information in line with the objectives of the study are captured. The questionnaires were checked for errors and completeness before final entry into appropriate software (Microsoft excel) and exported to Stata version 15.0 file (Stata Corporation, Texas, USA) for analysis.

3.10 Data Analysis

Descriptive statistics was determined for the population. Percentages were reported for categorical variables. Means and standard deviations were determined for continuous variables. Graphs and percentages were used to report on the experience of reproductive coercion. In addition, Pearson Chi-square (when required) was used to determine the association between the dependent variable (experience of reproductive coercion) and each independent variable (Age, educational level, relationship status, work and income, IPV), Finally, logistic regression models was used to test for association between reproductive coercion and other variables. Statistical significance was determined at $p<0.05$.

3.11 Ethical Consideration

Ethical considerations needed in dealing with human subjects was given consideration throughout the study. The researcher made sure that the following ethics were guaranteed in the study: (a) informed consent (b) confidentiality (c) pseudonym and anonymity.

Ethical Clearance: Clearance was sought from the Kintampo Health Research Center's Ethical Review Committee (Study ID: KHRCIEC/2020-19).

Permission: Approval was also sought from the authorities of the Holy Family Hospital**,** Techiman.

Informed Consent: Written consent (appendix 2) was sought from eligible participants after fully explaining the procedures, benefits and potential risks involved in participation. Participants were made to understand that, participation was purely voluntary and hence they can opt out at any time and this did not affect them in any way.

Benefits: Participants in the study were not been given any material benefits for the study. However, they were informed that their participation in the study will contribute immensely to create knowledge in the area of reproductive coercion and by extension, intimate partner violence which has the potential to influence future efforts at checking these violations of women's human rights through the formulation of informed policy and legislation.

Conflict of Interest: The principal investigator has no potential conflict of interest with regards to information and use of data from this research. This work is entirely meant for academic purposes. The principal investigator is an Obstetrician who works in the health facility. However, precautions have been taken to prevent the possibility of use of his current position to induce respondents' participation in this study due to fear of reprimand or loss of care. These steps include exclusion of the principal investigator in the recruitment and interview of respondents, collecting data from respondents at the facility and avoiding any discussion on the topic with consulting clients. The involvement of the Principal investigator will be to adequately train and provide supervision of the trained research assistants.

COVID 19 Preventive Measures.

Prevention of COVID-19 Infection and Transmission

Preventive measures to limit the transmission of COVID-19 involved maintaining a distance of about 1.5 meters at all times between the researcher/ research assistants and research

participants during data collection. A hand washing area, appropriate personal protective equipment and other relevant materials such as nose masks/ hand sanitizers and tissue papers were made available to all research assistants and respondents to protect them from infection with the COVID-19.

CHAPTER FOUR

4.0 RESULTS

4.1 Socio-demographic characteristics of respondents

Table 4.1 shows the socio-demographic characteristics of respondents. Majority (52.3%) of the respondents were between age 21 to 30. Majority (58.5%) of the respondents had partners who were age between 31 to 40 years. This was followed by 25.2% of respondents who had partners between 24 to 30 years. Majority (66.7%) of the respondents were married with 44.4% of then having been in a relationship for more than 5 years and about 21% being a relation within a year. Most (67.5%) of the respondents were Christians. A third (30.9%) of respondents had had up to junior high school education with 26.7% of their partners having had up to tertiary education. The majority (70.5%) of respondents and their partners (90.3%) were employed. Most (71.3%) of the respondents had earned an income in the last 12 months.

Table 4.1 Socio-demographic characteristics of respondents (n = 369)

Variables	Frequency	Percent (%)
Age in years		
21-30	193	52.3
31-40	126	34.2
41 plus	13	3.5
Partner's age in years		
31-40	216	58.5
41-50	53	14.4
51 plus	7	1.9
Relationship status		
Married	246	66.7
Cohabitation	106	28.7
Single	17	4.6
Duration of relationship with current partner (yrs)		
1year	81	21.9
2years	43	11.6
years	42	11.4
4years	28	7.6
5plus	175	47.4
Religion		
Christian	249	67.5
Muslim	116	31.4
Traditionalist	4	1.1
Educational level		
No formal education	72	19.5
Primary level	39	10.6
Junior high	114	30.9
Senior high	88	23.9
Tertiary	56	15.2
Employment status		
Unemployed	109	29.5
Employed	260	70.5
Income earned in the last 12 months		
Yes	263	71.3
No	106	28.7
Partner's educational level		
No formal education	62	17.6
Primary level	28	8.0
Junior high	76	21.6
Senior high	92	26.2
Tertiary	94	26.7
Partner's employment status		
Unemployed	34	9.7
Employed	318	90.3

4.2 Socio-cultural characteristics of respondents

Table 4.2 shows that the majority (%) of the respondents belonged to ethnic groups which practice the patrilineal system of inheritance. Out of the 369 respondents, 336 (91.1%) of them indicated that there was no influence from their external families on the number of children to have. Sixty-one percent of respondents stated that personally, they did not believe that a good woman is the one who has many children. Also, 52.0% indicated that their community believed that a woman who aborts an unwanted pregnancy is not a good woman. About 29.5% of the respondent wanted 2 more children after the current pregnancy and 20.9% wanting to have a one child after the current pregnancy. About 24.4% of the respondent said that their partners wanted 3 additional children after the current pregnancy.

Table 4.2 Socio-cultural characteristics of respondents

Variables	Frequency	Percent (%)
Type of inheritance		
Patrilineal	236	67.1
Matrilineal	116	33.0
Living with extended family		
No	265	71.8
Yes	104	28.2
Influence from external family on the number of children to have		
No	336	91.1
Yes	33	8.9
If yes, by who		
His parents	5	15.2
His siblings	19	57.6
His other relations	4	12.1
Your parents	1	3.0
Your siblings	4	12.1
Additional number of children wanted after current pregnancy		
1	77	20.9
2	109	29.5
3	54	14.6
4 plus	22	5.9

Additional number of children wanted by spouse after current pregnancy		
2	59	15.9
3	90	24.4
4 plus	52	14.1
None1	22	5.9
Tribe rewards women or couples for large families		
Yes	116	31.4
No	253	68.6
Partner's tribe rewards men or couples for large families		
Yes	137	37.1
No	232	62.9
Personal believe that, a good woman is the one who has many children		
Yes	144	39.0
No	225	61.0
Community believe that, a good woman is the one who has many children		
Yes	157	42.6
No	212	57.5
Personal believe that, a real man is the one who gives birth to many children		
Yes	142	38.5
No	227	61.5
Community believe that, a real man is the one who gives birth to many children		
Yes	160	43.4
No	209	56.6
Personal believe that, a woman who aborts an unwanted pregnancy is not a good woman		
Yes	170	46.1
No	199	53.9
Community believe that, a woman who aborts an unwanted pregnancy is not a good woman		
Yes	192	52.0
No	177	48.0

4.3 Reproductive history of respondents

The reproductive history of respondents is shown below in Table 4.3. About 37.9% of the respondent had had 4 pregnancies or more with 23% experiencing their first of gravidae. Majority (58.5) of the women had only a child before the current pregnancy with 18.4%

having two children before the current. Majority (78.6%) of the respondents had never had a caesarean section. Also, 48.2% respondents had ever used some form of contraceptive with injectable being the preferred contraceptive method. About 16.8% of the respondent have had spontaneous abortion before. Also, 21.4% of them had experienced caesarean section before.

Table 4.3 Reproductive history of respondents

Variables	Frequency	Percent (%)
Gravidity		
1	85	23.0
2	63	17.1
3	81	21.9
4plus	140	37.9
Parity		
1	216	58.5
2	68	18.4
3	44	11.9
4plus	41	11.1
Number of children currently alive		
1	187	50.7
2	69	18.7
3	48	13.0
4plus	65	17.6
Number of children born dead		
None	342	92.7
1	25	6.8
2	2	0.5
Number of children born alive but dead later		
None	334	90.51
1	32	8.67
2	3	0.81
Number of spontaneous termination of pregnancies		
None	279	75.6
1	62	16.8
2	24	6.5
4plus	4	1.1
Number of voluntary termination of pregnancies		
None	306	82.9
1	45	12.2
2	13	3.5
4plus	5	1.4

Ever had a caesarean section		
Yes	79	21.4
No	290	78.6
Ever had any gynaecological surgery		
Yes	18	4.9
No	351	95.1
Ever use any form of contraceptive		
Yes	178	48.2
No	191	51.8
If yes, what method		
Condoms	18	10.1
Injectable	83	46.6
Implants	36	20.2
Pills	29	16.3
IUD	7	3.9
Others	5	2.8
Desire for current pregnancy		
Wanted it at the time	214	58.0
Wanted it later	129	35.0
Did not want it at all	26	7.1

4.4 Current and Lifetime Experiences of reproductive coercion among women

Table 4.4 below shows that 17.3% and 8.1% of respondents stated that they had experienced some form of pregnancy coercion from the current partner or previous partners respectively. The commonest form of pregnancy coercion experienced from the current partner were pressure to become pregnant (10.3%), and the pressure to keep the current pregnancy (10.3%). The least common (1.6%) form of pregnancy coercion experienced from the current partner was use of physical hurt to get the respondents to agree to get pregnant.

The commonest type of pregnancy coercion experienced from other partners in the lifetime the respondents is the pressure to abort a pregnancy (3.8%), whereas the threat by previous partners to leave respondents if they did not become pregnant constituted the least common type of pregnancy coercion (1.4%).

Some 7.9% and 3.0% of respondents stated that they had experienced some form of birth control/contraceptive sabotage from the current partner and previous partners respectively. Respondents stated that clear instructions from their partners to not utilize family planning services is the predominant form of birth control/contraceptive sabotage with the current partner (4.9%) and with previous partners (2.4%).

Table 4.4 Experiences of Reproductive Coercion

Form of RC	With Current Partner n(%)	Lifetime Experience with other partners n(%)
Any Pregnancy Coercion	64(17.3)	30(8.1)
Ever forced or pressured to become pregnant	38(10.3)	8(2.2)
Pressured to keep current pregnancy	38(10.3)	9(2.4)
Pressured to abort this pregnancy	16(4.3)	14(3.8)
Ever told not to use contraception	36(9.8)	8(2.2)
Ever told would have a baby with someone else if you didn't get pregnant?	16(4.3)	8(2.2)
Ever got hurt physically because you did not agree to get pregnant	6(1.6)	6(1.6)
Ever said would leave you if you did not get pregnant	15(4.1)	5(1.4)
Partner ever pressured with words, promises, or mean comments to get you to become pregnant	26(7.0)	10(2.7)
Ever hidden birth control from partner	21(5.7)	10(2.7)
Any Birth control/contraceptive sabotage	29(7.9)	11(3.0)
Partner ever take off the condom during sex so you would get pregnant	2(0.5)	3(0.8)
Partner ever put holes in the condom so you would get pregnant	2(0.5)	3(0.8)
Partner ever break the condom on purpose so you would get pregnant	3(0.8)	4(1.1)
Partner ever make you have sex without a condom so you would get pregnant or he refused to withdraw after agreeing to practice withdrawal method	7(1.9)	3(0.8)
Partner ever refuse to use a condom after you agreed to use one	5(1.4)	3(0.8)
Partner ever take your birth control (like pills) away from you so you would get pregnant	7(1.9)	5(1.4)

Partner ever clearly tell you to not utilize Family Planning services	18(4.9)	9(2.4)
Partner ever keep you from going to the Family planning clinic (refuse you transport fare)	9(2.4)	4(1.1)
Partner ever refuse you pecuniary support to register his displeasure with your pregnancy	13(3.5)	6(1.6)

4.5 Prevalence of reproductive coercion among respondents

The proportion of respondents who experienced reproductive coercion was 25.5% (percentage = 25.5%; 95% CI = 21.1% - 30.2%). The prevalence was computed using both previous and current experiences of reproductive coercion among respondent as it done by (Hill et al., 2019).

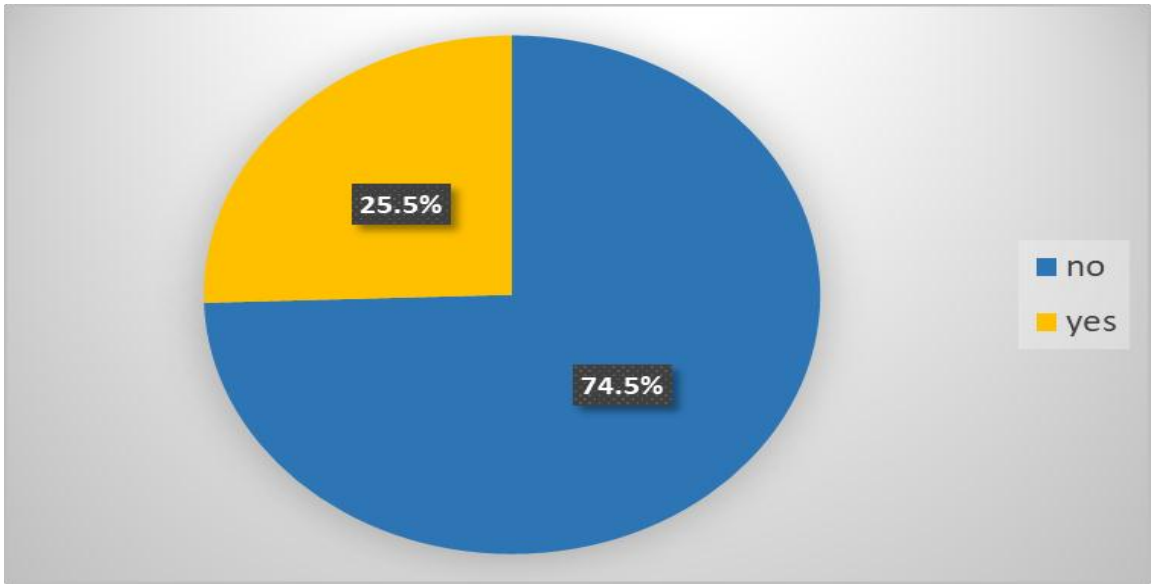

Figure 4.1 Experience of reproductive coercion among respondents

4.6 Current and Lifetime Experiences of IPV among women

Table 4.5 shows the current and lifetime experiences of IPV among women. The table shows that 4.3% of respondents had experienced any form of physical IPV in their current pregnancy. Furthermore, 4.1% of respondents had experienced some form of physical IPV from their current partner and in their lifetime.

Three percent of respondents who reported that their partner pushed or shoved them in their current pregnancy. However, 8 (2.2%) of respondents indicated that their partner has hit them with a fist or something that could have hurt them physically in this current pregnancy. A similar proportion also stated that their partner has slapped them or thrown something at them in this current pregnancy. Thirteen (3.5%) of respondents also stated that their current partner has ever slapped them or thrown something at them.

Also, 9.5% of respondents had experienced any form of sexual IPV in their current pregnancy and from their current partner. Twenty-four out of the 369 respondents, had experienced sexual IPV in their lifetime.

Out of the 369 respondents, 30 (8.1%) stated that their partner physically forced them to have sex when they did not want to in their current pregnancy. Eighteen respondents (4.9%) indicated that their partner used threats or intimidation (but not physical force) to get them to have sex when they did not want to in their current pregnancy.

Nearly eight percent of respondents 28 (7.6%) indicated that their current partner has ever physically forced them to have sex when they did not want to and 4.9% also stated that their current partner has ever used threats or intimidation (but not physical force) to get them to have sex when they did not want to.

Out of the 369 respondents, 24 (6.5%) stated that in their lifetime, their previous partner/s had ever physically forced them to have sex when they did not want to do. Three respondents (0.8%) indicated that their previous partner/s had ever forced them to do something else sexual that they did not want to do.

Table 4.5 Experiences of IPV among women

Form of IPV	Current pregnancy (n%)	Current partner (n%)	Lifetime experience (excluding the current partner) (n%)
Any form of physical IPV	**16(4.3)**	**15(4.1)**	**15(4.1)**
Partner ever has threatened to use or actually used a gun, knife or other weapon in this current pregnancy	6(1.6)	6(1.6)	2(0.5)
Partner ever kicked, choked, dragged, burnt you in this current pregnancy	6(1.6)	6(1.6)	5(1.4)
Partner ever pushed or shoved you in this current pregnancy	11(3.0)	8(2.2)	13(3.5)
Partner ever hit you with a fist or something that could hurt you physically in this current pregnancy	8(2.2)	7(1.9)	9(2.4)
Partner ever slapped you or thrown something at you in this current pregnancy	8(2.2)	13(3.5	9(2.4)
Any sexual IPV	**35(9.5)**	**35(9.5)**	**24(6.5)**
Partner ever physically forced you to have sex when you did not want to do in this current pregnancy	30(8.1)	28(7.6)	24(6.5)
Partner used threats or intimidation (but not physical force) to get you to have sex when you did not want to in this current pregnancy	18(4.9)	18(4.9)	13(3.5)
Partner forced you to do something else sexual that did not want to do in this current pregnancy	5(1.4)	5(1.4)	3(0.8)

4.7 Socio-demographic characteristics associated with reproductive coercion

The results from a Chi-Squared test and a two-sample t-test of socio-demographic characteristics associated with reproductive coercion is presented below in table 4.10. Relationship status ($p = 0.002$) and the income earned in the last 12 months ($p = 0.002$) were the socio-demographic characteristics associated with reproductive coercion.

Table 4.6 Socio-demographic characteristics associated with reproductive coercion

Variables	Reproductive coercion		χ^2
	Yes (n = 94)	No (n = 275)	p-value
Age in years			0.052
<20	16(43.3)	21(56.7)	
21-30	49(25.4)	144(74.6)	
31-40	26(20.7)	100(79.3)	
41 plus	3(23.1)	10(76.9)	
Partner's age in years			0.305
24-30	29(31.2)	64(68.8)	
31-40	49(22.7)	167(77.3)	
41-50	13(24.5)	40(75.5)	
51 plus	3(42.9)	4(57.1)	
Relationship status			**+0.002***
Married	49(19.9)	197(80.1)	
Cohabitation	38(35.8)	68(64.2)	
Single	7(41.2)	10(58.8)	
Duration of relationship with current partner			
1year	28(34.6)	53(65.4)	
2years	12(27.9)	31(72.1)	
3years	10(23.8)	32(76.2)	
4years	7(25)	21(75)	
5plus	37(20.7)	138(79.3)	
Religion			0.054
Christian	71(28.5)	178(71.5)	
Muslim	23(19.2)	97(80.8)	
Highest level of education			0.575
No formal education	21(29.2)	51(70.8)	
Primary level	12(30.8)	27(69.2)	
Junior high	30(26.3)	84(73.7)	
Senior high	17(19.3)	71(80.7)	
Tertiary	14(25)	42(75)	
Partner's educational level			+0.245
No formal education	20(32.3)	42(67.7)	
Primary level	6(21.4)	22(78.6)	
Junior high	12(15.8)	64(84.2)	
Senior high	26(28.6)	65(71.4)	
Post-high	0(0)	1(100)	
Tertiary	23(24.5)	71(75.5)	
Employment status			0.268

Unemployed	32(29.4)	77(70.6)	
Employed	62(23.8)	198(76.2)	
Partner's employment status			
Unemployed	11(32.4)	23(67.6)	0.277
Employed	76(23.9)	242(76.1)	
Income earned in the last 12 months			**0.002***
Yes	55(20.9)	208(79.1)	
No	39(36.8)	67(63.2)	
Average monthly income	725.3 ± 401	684.8 ± 812.9	0.706

[+] (fisher's exact) *(statistically significant, p≤0.05)

4.8 Socio-cultural factors associated with reproductive coercion

Table 4.8 shows the socio-cultural factors associated with reproductive coercion. The influence from external family on the number of children to have ($p < 0.001$), Preferred fertility after partner influence ($p < 0.001$) additional number of children wanted by spouse after current pregnancy ($p = 0.006$), rewards from partner's tribe for large families ($p = 0.024$), personal believe that, a woman who aborts an unwanted pregnancy is not a good woman ($p = 0.002$) and community believe that, a woman who aborts an unwanted pregnancy is not a good woman ($p < 0.001$).

Table 4.7 Socio-cultural factors associated with reproductive coercion

Variables	Reproductive coercion		p-value
	Yes (n = 94)	No (n = 275)	
Type of inheritance			0.931
Patrilineal	58(24.6)	178(75.4)	
Matrilineal	29(25)	87(75)	
Living with extended family			0.508
No	70(26.4)	195(73.6)	
Yes	24(23.1)	80(76.9)	
Influence from external family on the number of children to have			**<0.001***
No	74(22)	262(78)	
Yes	20(60.6)	13(39.4)	
Preferred fertility prior to relationship			0.175
None	10(28.3)	25(71.7)	
1-3	33(28.2)	84(71.8)	
4-6	46(22.2)	161(77.8)	
7 plus	5(50)	5(50)	
Preferred fertility after partner influence			**<0.001***
None	20(22.7)	68(77.3)	
1-3	31(24.6)	95(75.4)	
4-6	34(23.8)	109(76.2)	
7 plus	9(75)	3(25)	
Additional number of children wanted after current pregnancy			0.658
1	20(26)	57(74)	
2	26(23.9)	83(76.1)	
3	14(25.9)	40(74.1)	
4 plus	9(40.9)	13(59.1)	
Additional number of children wanted by spouse after current pregnancy			**0.006***
2	16(27.2)	43(72.8)	
3	21(23.4)	69(76.6)	
4 plus	17(32.7)	35(67.3)	
None1	12(45.5)	10(54.5)	
Tribe rewards women or couples for large families			0.887
Yes	29(25)	87(75)	
No	65(25.7)	188(74.3)	
Partner's tribe rewards men or couples for large families			**0.024***
Yes	44(32.1)	93(67.9)	
No	50(21.5)	182(78.5)	
Personal believe that, a good woman is the one who has many			0.867

children			
Yes	36(25)	108(75)	
No	58(25.8)	167(74.2)	
Community believe that, a good woman is the one who has many children			0.808
Yes	41(26.1)	116(73.9)	
No	53(25)	159(75)	
Personal believe that, a real man is the one who gives birth to many children			0.773
Yes	35(24.6)	107(75.4)	
No	59(26)	168(74)	
Community believe that, a real man is the one who gives birth to many children			0.672
Yes	39(24.4)	121(75.6)	
No	55(26.3)	154(73.7)	
Personal believe that, a woman who aborts an unwanted pregnancy is not a good woman			**0.002***
Yes	56(32.9)	114(67.1)	
No	38(19.1)	161(80.9)	
Community believe that, a woman who aborts an unwanted pregnancy is not a good woman			**<0.001***
Yes	71(37)	121(63)	
No	23(13)	154(87)	

*(statistically significant, p≤0.05)

4.9 Reproductive history factors associated with reproductive coercion

The reproductive history factors associated with reproductive coercion include; the number of spontaneous termination of pregnancies (p=0.016), number of voluntary termination of pregnancies (p = 0.001) and the desire for current pregnancy (p < 0.001). (Table 4.9)

Table 4.8 Reproductive history factors associated with reproductive coercion

Variables	Reproductive coercion		p-value
	Yes (n = 94)	No (n = 275)	
Gravidity			0.440
1	26(30.5)	59(69.4)	
2	14(22.2)	49(77.8)	
3	23(28.4)	58(71.6)	
4 plus	31(22.1)	109(77.9)	
Parity			0.395
1	53(28.3)	134(71.7)	
2	16(23.2)	53(76.8)	
3	8(16.7)	40(83.3)	
4 plus	17(26.2)	48(73.8)	
Number of children currently alive			0.400
1	60(27.8)	156(72.2)	
2	13(19.1)	55(80.9)	
3	9(20.5)	35(79.5)	
4 plus	12(47.6)	29(52.4)	
Number of children born dead			0.212
None	89(26)	253(74)	
1	4(16)	21(84)	
2	0(0)	1(100)	
3 plus	1(100)	0(0)	
Number of children born alive but dead later			0.089
None	90(27)	244(73)	
1	3(43.8)	29(66.2)	
2	1(33)	2(67)	
Number of spontaneous termination of pregnancies			**0.034***
None	81(29)	198(71)	
1	8(13)	54(87)	
2	5(31.1)	19(68.9)	
3 plus	0(0)	4(100)	
Number of voluntary termination of pregnancies			**0.010***
None	68(46.4)	238(53.6)	
1	17(37.8)	28(62.2)	
2	6(46.2)	7(53.8)	
3 plus	3(60)	2(40)	
Ever had a caesarean section			0.536
Yes	18(22.8)	61(77.2)	
No	76(26.2)	214(73.8)	

Ever had any gynaecological surgery			0.502
Yes	5(27.8)	13(72.2)	
No	89(25.4)	262(74.6)	
Ever use any form of contraceptive			0.067
Yes	53(29.8)	125(70.2)	
No	41(21.5)	150(78.5)	
Desire for current pregnancy			**<0.001***
Wanted it at the time	36(16.8)	178(83.2)	
Wanted it later	45(34.9)	84(65.1)	
Did not want it at all	13(50)	13(50)	

*(statistically significant, p≤0.05)

4.10 Factors associated with reproductive coercion

The results from a multiple logistic regression of all variables that were significantly associated with reproductive coercion in the bivariate analysis done earlier are presented in Table 4.10. The significant factors which showed significant association with reproductive coercion include; age in years, relationship status, income earned in the last 12 months, influence from external family on the number of children to have, tribe rewards women or couples for large families, additional number of children wanted after current pregnancy, personal believe that a woman who aborts an unwanted pregnancy is not a good woman, number of spontaneous termination of pregnancies, number of voluntary termination of pregnancies, desire for current pregnancy, physical IPV in current pregnancy, overall physical IPV from current partner, sexual IPV in current pregnancy, sexual IPV from current partner, lifetime experience of physical IPV from previous partners, lifetime experience of sexual IPV from previous partners.

Adjusting for background variables, the influence from external family on the number of children to have was associated with 3.59 times the odds of experiencing RC as compared to respondents whose external families did not have any influence on the number of children to have. (aOR = 3.59; 95% CI = 1.44 – 9.00; p = 0.006).

After controlling for the effect of all other variables, respondents who reported an experience of RC were 4.05 times more likely to have had no desire for their current pregnancy compared with those who desired their current pregnancy (aOR = 4.05; 95% CI = 1.39 – 11.78; p < 0.001).

After controlling for the effect of all other variables, respondents who reported an experience of RC were 12.51 times more likely to report an experience of physical IPV from their current partner compared with those who had never a experienced physical IPV from their current partners (aOR = 12.51; 95% CI = 1.53 – 102.34; p = 0.018).

After controlling for the effect of all other variables, respondents who reported an experience of RC were 5.42 times more likely to have reported a lifetime experience of sexual IPV from previous partners compared with those who had never had a lifetime experience of sexual IPV from previous partners (aOR = 5.42; 95% CI = 1.20 – 24.59; p = 0.028).

Table 4.9 Factors associated with reproductive coercion

Variables	cOR(95% CI)	p-value	aOR(95% CI)	p-value
Age in years				
21-30	0.17(0.33-0.02)	**0.022***	0.99(0.34-0.14)	0.420
31-40	0.23(0.38-0.07)	**0.006***	0.03(0.21-0.28)	0.795
41 plus	0.20(0.48-0.07)	0.150	0.15(0.32-0.47)	0.536
Relationship status				
Married	1.00		1.00	
Cohabitation	2.25(1.36-3.72)	**0.002***	0.96(0.48-1.92)	0.907
Single	2.81(1.02-7.77)	**0.046***	1.18(0.30-4.71)	0.810
Income earned in the last 12 months				
Yes	1.00		1.00	
No	2.20(1.34-3.61)	**0.002***	0.96(0.49-1.86)	0.902
Influence from external family on the number of children to have				
No	1.00		1.00	
Yes	5.45(2.59-11.47)	**<0.001***	3.59(1.44-9.00)	**0.006***
Tribe rewards women or couples for large families				

Yes	1.00		1.00	
No	0.58(0.36-0.93)	**0.025***	0.71(0.35-1.44)	0.342
Additional number of children wanted after current pregnancy	1.35(1.15-1.59)	**<0.001***	1.22(0.98-1.51)	0.078
Personal believe that, a woman who aborts an unwanted pregnancy is not a good woman				
Yes	1.00		1.00	
No	0.48(0.30-0.78)	**0.003***	0.82(0.39-1.72)	0.602
Number of spontaneous termination of pregnancies	0.58(0.37-0.91)	**0.018***	0.70(0.41-1.18)	0.182
Number of voluntary termination of pregnancies	1.82(1.26-2.63)	**0.001***	1.46(0.92-2.30)	0.105
Desire for current pregnancy				
Wanted it at the time	1.00		1.00	
Wanted it later	2.65(1.59-4.41)	**<0.001***	1.58(0.84-2.98)	0.154
Did not want it at all	4.94(2.12-11.55)	**<0.001***	4.05(1.39-11.78)	**0.010***
Overall physical IPV in current pregnancy				
No	1.00		1.00	
Yes	7.16(2.42-21.19)	**<0.001***	1.07(0.17-6.85)	0.941
Overall physical IPV from current partner				
No	1.00		1.00	
Yes	21.91(4.84-99.09)	**<0.001***	12.51(1.53-102.34)	**0.018***
Overall sexual IPV in current pregnancy				
No	1.00		1.00	
Yes	8.23(3.85-17.61)	**<0.001***	1.56(0.27-9.01)	0.619
Overall sexual IPV from current partner				
No	1.00		1.00	
Yes	9.60(4.4-20.94)	**<0.001***	1.54(0.28-8.45)	0.619
Overall lifetime experience of physical IPV from previous partners				
No	1.00		1.00	
Yes	13.27(3.66-48.15)	**<0.001***	1.16(0.16-8.49)	0.883
Overall lifetime experience of sexual IPV from previous partners				
No	1.00		1.00	
Yes	13.68(4.94-37.85)	**<0.001***	5.42(1.20-24.59)	**0.028***

*(statistically significant, p≤0.05

CHAPTER FIVE

5.0 DISCUSSION

The aim of this study was to determine the prevalence of reproductive coercion and its associated factors among pregnant women attending antenatal care at Holy Family Hospital, Techiman within the period October/November, 2020. The discussion is presented under the following headings: Prevalence of RC, intimate partner violence and RC, and factors associated with RC.

5.1 Prevalence of RC

This study showed that a quarter (25.5%) of the respondents in this hospital-based sample of pregnant women reported experience of RC at some point in their lifetime, demonstrating that RC is pervasive among pregnant women attending ANC at the Holy Family Hospital, Techiman. Although the prevalence of RC in this study falls within the global measure of 15% to 25%(Clark et al., 2014; Miller & Silverman, 2010), it differs remarkably from the prevalence rates in other settings in West Africa and the world over, such as such as 18.6% in rural Côte d'Ivoire (Falb et al., 2019); 16% among reproductive-aged women at a large obstetrics and gynecology clinic in Rhodes Island, USA (Clark et al., 2014); 9.8% among married adolescents in Dosso, Niger and 12.1% reproductive aged women in Uttar Pradesh, India (Silverman et al., 2019).

The prevalence rate in this study also contrasts sharply with that of another clinic-based study in Nairobi, Kenya that reported a much higher prevalence of 40% among 142 women and girls aged 15-49 years seeking family planning counseling across four clinics (Silverman et al., 2019). Whether the prevalence of RC is higher in a family planning and counselling clinic relative to that of an ante-natal clinic is unknown. However, among clients seeking family planning and counselling services in the Nairobi study, a report of 5.09 times likelihood of

RC among women who were covertly using contraception was made, compared with women who were not covertly using contraception.

Covert Contraceptive Use (CCU), the practice of using a family planning method without the knowledge of the other partner is suggestive of the extent to which women lack the ability to independently exercise their reproductive autonomy (Biddlecom & Fapohunda, 1998). Although there is no available published study on RC in Ghana, a prevalence of 34% covert contraceptive use (CCU)was recorded among 300 women attending a Reproductive health clinic in Sunyani, Ghana (Baiden et al., 2016). The Sunyani study also showed that women who reported CCU were 2.27 times more likely to want to delay their first or next pregnancy by at least four years. The relationship between RC and CCU in Ghana may need to be further investigated to yield better understanding of the concept and provide insights on improving women's RH.

5.2 Intimate Partner Violence and RC

This study found a significant association between experience of physical and sexual IPV and RC. Respondents who reported RC were more likely to have either experienced IPV with the current partner or with a previous partner. This finding is consistent with multiple studies in West Africa, Australia and the USA, that demonstrate the significance of the intersection between IPV and RC (Miller, 2010; Falb et al., 2019; Hill et al., 2019; Miller et al., 2019; Grace & Fleming, 2016; Miller et al., 2011). There is unanimity and consistency that IPV is significantly associated with increased risks of elements of reproductive coercion that include abortions, unintended pregnancies and general decrease in reproductive autonomy.

IPV is a public health issue not just because of its direct adverse impact on the physical, and sexual state of victims, it also elevates victims' risk for other adverse health outcomes such as mental health challenges (Children by Choice, 2018; Lutwak, 2018), STIs, pelvic inflammatory diseases and increased risk of unsafe abortions (Hasstedt & Rowan, 2016;

Miller et al., 2014; Miller & Silverman, 2010;Breiding et al., 2015). IPV in pregnant women also increases the risk of adverse maternal and pregnancy outcomes such as low birthweight and perinatal morbidity and mortality (Pallitto et al., 2005).

In view of the direct impact of IPV and its associated medical risks, especially on pregnant women, it is crucial that preventive measures and other interventions targeting IPV can greatly reduce this public health problem and improve the health of antenatal care clients in particular and women in general. The findings in this study further underscores this critical need.

5.3 Factors associated with RC

At the bivariate level factors that were found to be significantly associated with the experience of RC were the influence from external family on the number of children to have, additional number of children wanted by spouse after current pregnancy, rewards from partner's tribe for large families, personal belief that a woman who aborts an unwanted pregnancy is not a good woman, and community believe that, a woman who aborts an unwanted pregnancy is not a good woman.

However, in the adjusted models, the association between RC and a vast majority of these aforementioned factors were found to be non-significant. Of all the socio-demographic, socio-cultural and economic characteristics of the respondents that were measured, only one other factor (apart from IPV discussed earlier) namely, the influence from external family on the number of children, shows a significant influence on respondents' experience of RC. This finding is partly consistent with other studies in multinational locations which reported a higher odds of in-law-perpetrated RC (Gupta et al., 2012). In this study the siblings of the respondents' partners constituted the greatest proportion (57%) of the in-laws who influenced the number of children to have. This is followed by the parents-in-law (15%) of the

respondents. However, the parents of respondents formed the least proportion (1%) of external family influence on the number of children to have. In effect, the study suggest that the in-laws of respondents compared with respondents' own parents and siblings play a bigger role in influencing the number of children to have. In Ghanaian custom, patrilineality places the responsibility for caring of a widow and her children on the man's lineage (Kutsoati, 2012). The finding in the study that about two-thirds (67.1%) of respondents' partners practice the patrilineal system of inheritance could help explain the overarching influence of the in-laws on the number of children that respondents should have. This is consistent with other findings in a strongly patrilineal setting in Madya Pradesh, India where the mothers-in-law have an overwhelming influence on fertility decisions (Char et al., 2010).

5.4 Unwanted Pregnancy

The study showed a significant association between RC and the respondents' current pregnancy being unwanted.

Unwanted pregnancies may result from one's inability to reach an agreement on sex, contraception and fertility (Miller et al., 2014; Miller & Silverman, 2010). About 13.8 percent of the respondents reported their current pregnancy as unwanted. About 59.6% of the women who experienced RC held the belief that a woman who aborts an unwanted pregnancy is not a good woman. This contrasts sharply with that of their community where three-quarters (75.4%) believed that a good woman is not one who will not abort an unwanted pregnancy. The impact of respondents' community perception of voluntary termination of pregnancy could explain why a significant percentage of the women kept their pregnancies even though they did not want them. The finding in this study is consistent with others which showed the influence of the broader community's pronatalist and/or cultural beliefs on individual's fertility.

How RC relates to unwanted pregnancy in the regular Ghanaian population is unknown as the Ghana DHS only reports on wanted pregnancy and not on RC. However, using fertility preferences as proxy, the Ghana DHS showed that 7% of births were unwanted (GHDS, 2014). The proportions of unwanted pregnancy in the current study was therefore about twice that of reported unwanted births in the Ghanaian population.

Several studies have shown that unwanted pregnancies adversely affect pregnancy and maternal outcomes including susceptibility to postpartum depression (Children by Choice, 2018; Lutwak, 2018; Miller & Silverman, 2010)

The significant association between RC and unwanted pregnancy in this study is consistent with others. This suggests that reducing RC prevalence might help reduce the incidence of unwanted pregnancy and help postpartum depression (Kumar et al., 2019).

CHAPTER SIX

6.0 CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

The findings from the study showed evidence of RC among the pregnant women within the study area. Both physical and sexual forms of IPV influenced experience of RC, although physical IPV appeared to affect RC more. The findings from this study demonstrated that influence from external family on the number of children is a key determinant of RC. Income also plays a role in the experience of RC.

This study's findings add to the body of available evidence which suggests that RC is more likely to be experienced in the context of IPV. It also shows that the external family (and not only intimate partners) are important in the experience of RC by respondents.

6.2 Recommendations

As a facility with the highest ANC attendance, highest number of deliveries and main referral center for Obstetrics and gynecology cases in the Bono East area, the Holy Family Hospital, Techiman plays a pivotal role in the reproductive health care delivery in the region. This, and the RC prevalence of 25.5% makes it imperative that efforts be made by the facility to understand the scope of RC among patients of the facility and to institute measures aimed at helping address it. The following recommendations should be helpful:

The Management of the Holy Family Hospital, should include RC and IPV screening as part of the history checklist for all ANC clients on their first visit (booking visit) owing to the significant association between RC and IPV. This will help improve the care and monitoring of clients as well as help avert some of the adverse maternal and perinatal outcomes associated with RC. Such screening can later be extended to cover all other female patients of reproductive age at the outpatient.

Education on RC and IPV should be incorporated into the daily health talk given to patients at the ANC. This will help improve understanding of the conditions and help remove some of the stigma and for that matter help with the screening efforts.

Nurses, doctors, ward assistants and other caregivers should be educated on how RC and IPV are intimately related and how elicit information from patients on RC and IPV in a culturally appropriate way.

The Management of Holy Family Hospital should make available counselling services for clients and their partners when RC is reported to the health team

6.3 Strengths and limitations of the study

To my knowledge this is the first study that has explored the issue of RC among pregnant women in Ghana. The findings of this study are best considered with the recognition of certain important limitations.

Firstly, the results may not be generalizable to all pregnant victims of RC within the Techiman municipality as respondents recruited from the Holy Family Hospital may have different characteristics compared to those who either do not access ANC care or access ANC services at other health facilities. Despite this limitation, RC prevalence of 25.5% reported in this study is suggestive of the fairly common occurrence of this phenomenon and further raises a need for further facility-based and community-based research. Such context-specific research is important to further understand the burden of the condition.

Secondly, as with many other studies on IPV and RC, fear of stigmatization may lead to underreporting. However, the study clearly shows a significant association between RC and IPV. For this reason, integrating IPV screening (using standardized IPV screening protocols) and IPV reduction efforts in hospital-based settings (such as educating caregivers on the

interconnectedness of RC and IPV) could be important amongst other attempts to reduce RC prevalence.

Lastly, the study cannot clearly distinguish between pregnancy resulting exclusively from pregnancy coercion and one resulting from overt IPV. However, significant association between unwanted pregnancy and RC as revealed by data from this study indicate the need to help improve the reproductive autonomy of women through efforts aimed at improving utilization of family planning services.

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Website: Holy Family Hospital, Techiman. (n.d.).

APPENDICES

Participant Information Leaflet and Consent Form

Title of Research: Experience of reproductive coercion among pregnant women attending antenatal clinic (ANC), at Holy Family Hospital, Techiman.

Name(s) and affiliation(s) of researcher(s): This study is being conducted by Dr. Ibrahim Soale Friko of the School of Public Health, University of Ghana, Legon.

Background (Please explain simply and briefly what the study is about: Reproductive Coercion (RC) is any external conduct that hinders the autonomy of a person to make decisions regarding their reproductive health. It mainly affects women of reproductive age. RC comes in several forms such as pressuring a woman into getting pregnant, controlling the outcome of another woman's pregnancy, sabotaging another person's contraceptive use and compelling or coercing a woman to get sterilization. RC is a global public health issue that adversely affects sexual and reproductive health, mental health as well as maternal and child health. The negative consequences of RC coupled the lack of information and/or empirical research data on RC prevalence rates and associated factors in Ghana, makes it imperative that research into this area be done to generate national data to help inform the country to respond to the scourge of RC in an evidence-based manner.

Purpose(s) of research: The purpose of this study is to find out how widespread reproductive coercion is among pregnant women and to also find out its association with such factors as intimate partner violence and socio-economic factors.

Procedure of the research, what shall be required of each participant and approximate total number of participants that would be involved in the research:

If you agree to participate in this study, then you will answer a few questions from a structured questionnaire on Reproductive Coercion, intimate partner violence, socio-demographic and economic factors. You will have the option of choosing your preferred language of interview (English or Twi). The interview will take approximately 40 minutes to complete. The information collected from you will be labeled with a code number and will not bear your name. You will be among about 365 pregnant women to be interviewed among those receiving ANC services at the Holy Family Hospital, Techiman.

Risk(s): Participants have the risk of experiencing discomfort with having to share information on very sensitive topics such as sexual behaviour, obstetric history, contraceptive experience, experience of violence and intimate relationship. You will be offered assistance

via referral to the welfare officer/ counsellor of the hospital for counseling if you express discomfort or show visible signs of trauma (start crying or stop answering questions).

Benefit(s): You will have no material benefits from participating in the study.

However, it is possible that you may become more aware of issues relating to Reproductive coercion and intimate partner violence. The results of this research study will contribute immensely to knowledge in the area of reproductive coercion and by extension, intimate partner violence which has the potential to influence future efforts at checking these violations of women's human rights through the formulation of informed policy and legislation.

Confidentiality: Your identity will be protected both at the data collection stage and results compilation. Codes will be used in place of names and your responses cannot be traced to you. Your responses to the questions will be kept secret between you and the interviewer. The data will be protected in a locked drawer and password-protected computer**.**

Voluntariness: Your decision to take part in this study is completely voluntary (of your free will).

Alternatives to participation: The decision to participate in this study is entirely yours to make. Your refusal to participate will not in any way affect the care that you receive from the staff of this hospital now or in the future.

Withdrawal from the research: You may choose to withdraw from the research at any time. You may also choose not to answer any question you find uncomfortable or private.

Consequence of Withdrawal: There will be no consequence, loss of benefit or care to you if you choose to withdraw from the study. Please note however, that some of the information that may have been obtained from you without identifiers (name etc), before you chose to withdraw, may have been modified or used in analysis reports and publications. These cannot be removed anymore. We do promise to make good faith effort to comply with your wishes as much as practicable.

Costs/Compensation: There is no cost to you to participate.

Contacts: If you have any question concerning this study, please do not hesitate to contact Dr. Ibrahim Soale Friko, 0206300761.

Further, if you have any concern about the conduct of this study, your welfare or your rights as a research participant, you may contact:

The Administrator of the Kintampo Health Research Centre Institutional Ethics Committee on 0504270501.

CONSENT FORM

Statement of person obtaining informed consent:

I have fully explained this research to _____ and have given sufficient information about the study, including that on procedures, risks and benefits, to enable the prospective participant make an informed decision to or not to participate.

DATE: _____ NAME: _____

Statement of person giving consent:

I have read the information on this study/research or have had it translated into a language I understand. I have also talked it over with the interviewer to my satisfaction.

I understand that my participation is voluntary (not compulsory).

I know enough about the purpose, methods, risks and benefits of the research study to decide that I want to take part in it.

I understand that I may freely stop being part of this study at any time without having to explain myself.

I have received a copy of this information leaflet and consent form to keep for myself.

NAME:_____

DATE: _____ SIGNATURE/THUMB PRINT: _____

Statement of person witnessing consent (Process for Non-Literate or blind Participants):

I (Name of Witness) certify that information given to

(Name of Participant), in the local language, is a true

reflection of what l have read from the study Participant Information Leaflet, attached.

WITNESS' SIGNATURE (maintain if participant is non-literate): _____

QUESTIONNAIRE

QUESTIONNAIRE ON EXPERIENCE OF REPRODUCTIVE COERCION AMONG PREGNANT WOMEN ATTENDING ANTENATAL CLINIC (ANC), AT HOLY FAMILY HOSPITAL, TECHIMAN
This is a research on Reproductive coercion among pregnant women attending antenatal clinic (ANC), at holy family hospital, Techiman. The study tries to find out the various reproductive coercion **(is any pressure or force regarding whether or not to be pregnant or give birth**) that you have experienced. You are required to share your experiences by responding to the following questions.

	QUESTIONS	CODING CATEGORIES	SKIP TO	CODES
	1. **INDIVIDUAL FACTORS**			
a.	Age (State your age at last birthday) years	……		age
b	Partner's age in completed years	……		P_age
c	Relationship status	**Married…….……..1** **Relationship but not married..,,,,,,2** **Single/no relationship……..3**		mstat
d	How many years have you been in a relationship with your current partner?	**……**		Years_union
e.	Religion	**Christian……...1** **Muslim……..2** **Traditionalist……...3** **Others…….……4**		rlbg
f	Highest Educational level	**No formal education …..……1** **Primary level ……..……2** **Junior High …….3** **Senior High……..……4** **Post- High……5** **Tertiary……6** **Tertiary……..……..…..4**		educ
g	Partner's Educational level	**No formal education …..……1** **Primary level ……..……2** **Junior High……..……...3** **Senior High……..…….……4**		p-educ

		Post-High……5 **Tertiary……..6**		
h	Employment status (self-employed or otherwise)	**Employed……..1** **Unemployed ……0**		employ
i	Partner's employment status	**Employed……..1** **Unemployed ……0**		
j	Have you earned any income in the last 12 months	**Yes…….……....1** **No……..……2**		
k	How much do you earn on the average in a month from the job you do?	**Please state** **……**		Income
2. SOCIO-CULTURAL FACTORS				
	Does your current partner observe matrilineal or patrilineal custom of inheritance?	**Patrilineal;…….....1** **matrilineal……..…..2**		**inherit**
	Living with extended family members relatives	**Yes……...……1** **No……...…..0**		**extended**
	Has there been any external family influence/ suggestions on how many children that you and your partner should have	**Yes……...……1** **No……...…..0**		**Ext influence**
	If yes, by who	1. His parents 2. His siblings 3. His other relations 4. Your parents 5. Your siblings 6. Your other relations 7. Other non-relations (co-workers, friends, acquaintances)		
Family size/ fertility wishes:				
	Preferred fertility prior to relationship.	**Please state** **……**		
	Preferred fertility after partner influence	**Please state** **……**		
	Additional number of children wanted after current pregnancy	**Please state** **……**		

	Additional number of children wanted by spouse after current pregnancy.	**Please state** ……		
Ethnic/Tribal incentivization of large families				
	Your tribe rewards women or couples for large families e.g. badudwan	1. Yes [ ] 2. No [ ]		
	Your partner's tribe rewards men or couples for large families e.g. badudwan	1. Yes [ ] 2. No [ ]		
Beliefs and attitudes that support RC				
	You believe that, A "good woman" is the one who has many children	1. Yes [ ] 2. No [ ]		
	Your community people think that, A "good woman" is the one who has many children	1. Yes [ ] 2. No [ ]		
	You believe that, A "real man is the one who gives birth to many children	1. Yes [ ] 2. No [ ]		
	Your community people think that, A "real man is the one who gives birth to many children	1. Yes [ ] 2. No [ ]		
	You believe that, A woman who aborts an unwanted pregnancy is not a "good woman"	1. Yes [ ] 2. No [ ]		
	Your community people think that, A woman who aborts an unwanted pregnancy is not a "good woman"	1. Yes [ ] 2. No [ ]		
3. REPRODUCTIVE/ OBSTETRIC HISTORY FACTORS				
l	Gravidity/pregnancy times/number of pregnancies	**Please state** ……		Gravidity

m	Number of births both live and still (from a pregnancy that was 7 months or more, dead or alive)	**Please state** **……**		Parity
	Number of children currently alive	**Please state** **……**		Child alive
	Number of children born dead	**Please state** **……**		Still birth
	Number of children who were born alive but died later	**Please state** **……**		Child dead
	Number of spontaneous termination of pregnancies (abortions) you have had	Please state ……		Stop
	Number of voluntary termination of pregnancies (abortions) you have had	**Please state** **……**		Vtop
	Have you ever had a Caesarean Section?	Yes……..……....1 No……..……2		CS
p	Have you ever had any gynaecological surgery? (e.g tubal, ovarian, ectopic, fibroid, cervical)	Yes……..……....1 No……..……2		Gynae_surg
s	Did you ever use any form of contraception before this pregnancy?	1. Yes [ ] 2. No [ ]	If no Skip to	Contra_use
	If yes, what method/s did you use	1. Condoms [ ] 2. Injectable [ ] 3. Implants [ ] 4. Pills [ ] 5. Sterilization [ ] 6. IUD [ ] 7. Others……		Contra_type
	Please tell me your desire for the current pregnancy when you realized it has happened. Did you…	1. Want it at the time [ ] 2. Wanted it later [ ] 3. Did not want it at all [ ]		Preg desire

4. EXPERIENCE OF REPRODUCTIVE COERCION FROM CURRENT PARTNER ONLY **(Pregnancy coercion and birth control sabotage)**
For each of the reproductive coercion items, indicate "yes" if you have ever experienced any of the following from your current partner
Pregnancy Coercion

Has your current partner ever forced or pressured you to become pregnant	0. No [ ] 1. Yes [ ]
Did your partner pressure you to keep current pregnancy	0. No [ ] 1.Yes [ ]
Did your partner pressure you to abort this pregnancy?	0. No [ ] 1.Yes [ ]
Has your partner ever told you not to use contraception?	0. No [ ] 1. Yes [ ]
Has your current partner ever told you he would have a baby with someone else if you didn't get pregnant?	0. No [ ] 1. Yes [ ]
Has your current partner ever hurt you physically because you did not agree to get pregnant ?	0. No [ ] 1. Yes [ ]
Has your current partner ever said he would leave you if you did not get pregnant?	0. No [ ] 1. Yes [ ]
Has your current partner ever tried to pressure you with words, promises, or mean comments to get you to become pregnant?	0. No [ ] 1. Yes [ ]
Have you ever hidden birth control from your current partner because you were afraid he would get upset with you for using it?	0. No [ ] 1. Yes [ ]
Birth control/contraceptive sabotage	
Did your current partner ever take off the condom during sex so you would get pregnant	0. No [ ] 1. Yes [ ]
Did your current partner ever put holes in the condom so you would get pregnant	0. No [ ] 1. Yes [ ]
Did your partner ever break the condom on purpose so you would get pregnant	0. No [ ] 1. Yes [ ]

Did your partner ever make you have sex without a condom so you would get pregnant or he refused to withdraw after agreeing to practice withdrawal method	0. No [ ] 1. Yes [ ]
Did your partner ever refuse to use a condom after you agreed to use one	0. No [ ] 1. Yes [ ]
Did your partner ever take your birth control (like pills) away from you so you would get pregnant	0. No [ ] 1. Yes [ ]
Did your partner ever clearly tell you to not utilize Family Planning services	0. No [ ] 1. Yes [ ]
Did your partner ever keep you from going to the Family planning clinic (e.g. refused to give you money and or transportation) to get birth control so you would get pregnant	0. No [ ] 1. Yes [ ]
Did your partner ever refuse you pecuniary support to register his displeasure with your pregnancy	0. No [ ] 1. Yes [ ]

5. LIFETIME EXPERIENCE OF REPRODUCTIVE COERCION FROM ALL OTHER PREVIOUS PARTNERS (EXCLUDING THE CURRENT) **(Pregnancy coercion and birth control sabotage)**	
For each of the reproductive coercion items, indicate "yes" if you have ever experienced any of the following from a husband, boyfriend, sexual partner, or someone you were dating or were involved with over a period of at least 3 months and had sexual intercourse)	
Pregnancy Coercion	
Did your previous partner/s ever force or pressure you to become pregnant	0. No [ ] 1. Yes [ ]
Did your previous partner/s pressure you to keep a pregnancy?	0. No [ ] 1. Yes [ ]

Tab	
Did your previous partner/s pressure you to abort a pregnancy?	0. No [ ] 1. Yes [ ]
Did your previous partner/s ever tell you not to use contraception	0. No [ ] 1. Yes [ ]
Did your previous partner/s ever tell you he would have a baby with someone else if you didn't get pregnant	0. No [ ] 1. Yes [ ]
Did your previous partner/s ever hurt you physically because you did not agree to get pregnant	0. No [ ] 1. Yes [ ]
Did your previous partner/s say he would leave you if you did not get pregnant	0. No [ ] 1. Yes [ ]
Did your previous partner/s try to pressure you with words, promises, or mean comments to become pregnant?	0. No [ ] 1. Yes [ ]
Have you ever hidden birth control from any previous partner because you were afraid he would get upset with you for using it?	0. No [ ] 1. Yes [ ]
Birth control/contraceptive sabotage	
Did your previous partner/s ever take off the condom during sex so you would get pregnant	0. No [ ] 1. Yes [ ]
Did your previous partner/s ever put holes in the condom so you would get pregnant	0. No [ ] 1. Yes [ ]
Did your previous partner/s ever break condom on purpose so you would get pregnant or he refused to withdraw after agreeing to practice withdrawal method	0. No [ ] 1. Yes [ ]
Did your previous partner/s ever make you have sex without a condom so she would get pregnant or he refused to	0. No [ ] 1. Yes [ ]
Did your previous partner/s ever take off a condom after you agreed to use one	0. No [ ] 1. Yes [ ]
Did your previous partner/s ever take your birth control (like pills) away from you so you would get pregnant	0. No [ ] 1. Yes [ ]

Did your previous partner/s ever clearly tell you to not utilize Family Planning services	0. No [ ] 1. Yes [ ]
Did your previous partner/s ever keep you from going to the Family planning clinic (e.g. refused to give you money and or transportation) to get birth control so you would get pregnant	0. No [ ] 1. Yes [ ]
Did your partner ever refuse you pecuniary support to register his displeasure with your pregnancy	0. No [ ] 1. Yes [ ]

6. INTIMATE PARTNER VIOLENCE IN THE CURRENT PREGNANCY (Physical and Sexual IPV)	
For each of the intimate partner violence items, indicate "yes" if you have ever experienced any intimate partner violence from your partner in this current pregnancy	
Physical IPV	
Has your partner ever has threatened to use or actually used a gun, knife or other weapon in this current pregnancy	0. No [ ] 1. Yes [ ]
Has your partner ever kicked, choked, dragged, burnt you in this current pregnancy	0. No [ ] 1. Yes [ ]
Has your partner ever pushed or shoved you in this current pregnancy	0. No [ ] 1. Yes [ ]
Has your partner ever hit you with a fist or something that could hurt you physically in this current pregnancy	0. No [ ] 1. Yes [ ]
Has your partner ever slapped you or thrown something at you in this current pregnancy	0. No [ ] 1. Yes [ ]
2. Sexual IPV	
Has your partner ever physically forced you to have sex when you did not want to do in this current pregnancy	0. No [ ] 1. Yes [ ]
Has your partner used threats or intimidation? (but not physical force) to get you to have sex when you did not want to in this current pregnancy	0. No [ ] 1. Yes [ ]

Has your our partner forced you to do something else sexual that did not want to do in this current pregnancy	0. No [ ] 1. Yes [ ]

7. EXPERIENCE OF INTIMATE PARTNER VIOLENCE FROM CURRENT PARTNER SINCE YOU WERE TOGETHER (Physical and Sexual IPV)	
For each of the intimate partner violence items, indicate "yes" if you have ever experienced any intimate partner violence from your current partner	
Physical IPV	
Has your current partner ever threatened to use or actually used a gun, knife or other weapon	0. No [ ] 1. Yes [ ]
Has your current partner ever kicked, choked, dragged, burnt you	0. No [ ] 1. Yes [ ]
Has your current partner ever pushed or shoved you	0. No [ ] 1. Yes [ ]
Has your current partner ever hit you with a fist or something that could hurt you physically	0. No [ ] 1. Yes [ ]
Has your current partner ever slapped you or thrown something at you	0. No [ ] 1. Yes [ ]
Sexual IPV	
Has your current partner ever physically forced you to have sex when you did not want to do	0. No [ ] 1. Yes [ ]
Has your current partner ever used threats or intimidation (but not physical force) to get you to have sex when you did not want to	0. No [ ] 1. Yes [ ]
Has your current partner has ever forced you to do something else sexual that you did not want to do?	0. No [ ] 1. Yes [ ]
8. LIFETIME EXPERIENCE OF INTIMATE PARTNER VIOLENCE FROM ALL PREVIOUS PARTNERS (INCLUDING CURRENT)	
For each of the IPV items, indicate "yes" if you have ever experienced any of the following from a husband, boyfriend, sexual partner, or someone you were dating or were involved with over a period of at least 3 months and had sexual intercourse)	
Physical IPV	

Did your previous partner/s ever threaten to use or actually used a gun, knife or other weapon	0. No [ ] 1. Yes [ ]
Did your previous partner/s ever kick, choked, dragged, burnt you	0. No [ ] 1. Yes [ ]
Did your previous partner/s ever push or shove you	0. No [ ] 1. Yes [ ]
Did your previous partner/s ever hit you with a fist or something that could hurt you physically	0. No [ ] 1. Yes [ ]
Did your previous partner/ ever slap you or thrown something at you	0. No [ ] 1. Yes [ ]
2. Sexual IPV	
Did your previous partner/s ever physically force you to have sex when you did not want to do	0. No [ ] 1. Yes [ ]
Did your previous partner/s ever use threats or intimidation (but not physical force) to get you to have sex when you did not want to	0. No [ ] 1. Yes [ ]
Did your previous partner/s ever force you to do something else sexual that did not want to do?	0. No [ ] 1. Yes [ ]

ETHICAL CLEARANCE

Kintampo Health Research Centre (KHRC) Institutional Ethics Committee (IEC)

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FULL ETHICAL APPROVAL CERTIFICATE

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Date: 08th December, 2020

Study ID: KHRCIEC/2020-19

Title of study: Reproductive Coercion among Pregnant Women attending Antenatal Clinic (ANC), at Holy Family Hospital Techiman.

Principal Investigator: Dr. Ibrahim Soale Friko

Supervisor: Dr. Deda Ogum Alangea

Type of Review: Full Board Review

Approval Date: 8th December, 2020

Expiration Date: 27th October, 2021

1. The Kintampo Health Research Centre Institutional Ethics Committee (IEC) is constituted and operates in conformance with requirements of 45 CFR 46, 21 CFR 50, 21 CFR 56 and section 3 of the International Council on Harmonization Guidelines, as well as all applicable regulatory, legal, and other ethical requirements governing human subject research in Ghana. The OHRP Federal Wide Assurance number for the committee is 00011103; the IRB registration number is 0004854.

2. The above study in title was reviewed by the IEC on 27th October 2020 and given conditional approval.

3. The Committee acknowledge the response to the conditional approval letter and submission of revised protocol. The response and revised protocol have been reviewed and considered to be satisfactory. The Committee therefore grant you full ethical approval for implementation of the study.

4. The following documents were reviewed and approved for use;
   - 4.1 Reproductive Coercion among Pregnant Women attending Antenatal Clinic (ANC), at Holy Family Hospital Techiman. Version 2 Dated 29 Oct 2020.
   - 4.2 Participant Information Sheet and Informed consent form.
   - 4.3 Study Questionnaire
   - 4.4 Study Budget
   - 4.5 Curriculum Vitae of study Investigators.

Study File number: 2020-19

THE CHAIRMAN
KINTAMPO HEALTH RESEARCH CENTRE
INSTITUTIONAL ETHICS COMMITTEE.