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WOMEN'S AUTONOMY AND REPRODUCTIVE HEALTH BEHAVIOUR IN GHANA

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ACCEPTANCE

Accepted by the Faculty of Social Studies, University of Ghana, Legon in partial fulfilment of the requirements for the degree of MA (Population Studies).

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Date

DECLARATION

I, DONATUS YAW ATIGLO, declare that unless otherwise indicated in the text or references, this is the result of original research undertaken under supervision at the Regional Institute for Population Studies at the University of Ghana, Legon, between August 2012 and July 2013 and that neither a part nor the whole of it has been presented elsewhere for the award of another degree.

.....

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.....

Date

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DEDICATION

To my parents

Papa and Mama, I love you

ABSTRACT

Ensuring optimum reproductive health through universal access to family planning services is key to human development. Though knowledge of contraception is high in Ghana its use among married women is very low, a phenomenon attributed to women's lack of power or autonomy in sexual relationships.

This study primarily sought to examine the levels of women's autonomy in Ghana and determine the extent to which women's contraceptive use is precipitated by their autonomy in relationships. The study also assessed other socio-economic and demographic characteristics of women that are associated with their contraceptive use.

The study used data from the 2008 Ghana Demographic and Health Survey. Guided by previous studies women's autonomy was measured by two indices, decision-making autonomy and autonomy from violence which were computed. Univariate analysis measured the distribution of respondents and their characteristics and showed that a majority of the respondents reported some decision-making autonomy and autonomy from violence. The relationship between autonomy, the control variables and contraceptive use was analysed using bivariate techniques. At the multivariate level, the relationship between contraceptive use and these indices were analysed while controlling for socio-economic and demographic characteristics using binary logistic regression. Neither dimension of women's autonomy was found to be a significant predictor of contraceptive use. Woman's age, wealth status, region of residence, educational attainment and number of living children showed significant associations with contraceptive use.

. Findings from the study inform recommendations to improve contraceptive use. There is also need for further research into the standardisation and dynamics of women's autonomy and its effect on reproductive health behaviour

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CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Nations across the globe ultimately aim at sustainable development of their human population though improved standards of living, education and health. The links between population dynamics, gender equality and sustainable development are widely recognized by the international community (PAI, 2013), and emphasized in the International Conference on Population and Development Programme of Action (UN, 1994), and the Rio Declaration on Environment and Development (UN, 1992).

The International Conference on Population and Development (ICPD) held in Cairo in September 1994 contributed to a paradigmatic shift in the approach to population control, economic development and human rights, a key outcome being a revised approach to sexual and reproductive health, especially in developing countries (Dixon, 2012). It emphasized the need to integrate the individual needs of men and women in the development agenda of member nations. Since the 1994 International Conference on Population and Development in Cairo, researchers and programme planners have recognised the importance of gender-based power dynamics for sexual and reproductive health within the sexual relationships of men and women. Women's lack of power restricts their ability to make decisions about family planning practice, as well as to have an open discussion with their partners about it (Blanc 2001, Do and Kurimoto 2012).

The Millennium Development Goals (MDG's) which offer defined time-bound targets for facilitating global development have goals directly related to women's autonomy and maternal health (PAI, 2013). Goal three, for instance, aims to promote gender equality and empower women whilst Goal five targets improving maternal health by reducing by

three-fourths the maternal mortality ratio and achieving universal access to reproductive health by 2015.

The World Bank (2006), for example, identifies gender equality both as a development objective in itself and as a means to reduce poverty, promote growth and promote better governance. A similar dual rationale for supporting women's empowerment has been articulated in the policy statements put forth at several high level international conferences in the past two decades (e.g. the Beijing Platform for Action, the Beijing+5 declaration and resolution, the Cairo Programme of Action, the Millennium Declaration, and the Convention on the Elimination of All Forms of Discrimination against Women [CEDAW]) (Malhotra et al., 2002).

Reproductive health is a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity, in all matters relating to the reproductive system and to its functions and processes. Reproductive health therefore implies that people are able to have a satisfying and safe sex life and that they have the capability to reproduce and the freedom to decide if, when and how often to do so (United Nations, 1995).

In Ghana, though reproductive health services have in the past concentrated on family planning increasing attention is being given to its other components, including safe motherhood, adolescent reproductive health, and the prevention and management of unsafe abortion, reproductive tract infections, sexual health, STI/HIV, infertility, cancers of the reproductive tract, harmful traditional practices and gender-based violence (GHS, 2007). However, the essence of family planning in reproductive health is central as a resource to improving maternal and child health and also as a valuable tool that frees them from the constraints of childbearing and child care thereby enabling them improve their socioeconomic status (Castle et al., 1999).

There is increasing evidence of the link between making progress on gender equality, and making progress on all the other development objectives. Tackling gender inequality in access to reproductive health services and resources is proven to increase women's productivity, and reduce poverty and hunger. It is expected that increased autonomy for women enhances their reproductive health, especially by reducing occurrence of unwanted or mistimed pregnancies as well as STI cases which directly affect maternal health and hence population health and development. A measure of universal access to family planning and in effect reproductive health services which is preventive rather than curative is contraception. The focus of this study is on the role of autonomy on contraceptive use among women in stable sexual relationships i.e. married or cohabiting. Therefore, this study will help identify any relationships between women's autonomy and their reproductive behaviour.

1.2 Statement of the Problem

Gender differences have traditionally been acute, with women and girls being more discriminated against especially in settings like Ghana and the rest of the sub Saharan African region. Women's lack of autonomy, especially in developing settings, has for a long time been identified as an impediment to deriving utmost benefit from them and has borne dire consequences for most populations.

The differentials in health gap between rich and poor countries' maternal and neonatal conditions represent the largest single disparity in public health statistics between low income and high income countries (World Bank, 2006). The largest proportion of all maternal deaths in the world occurs in developing countries. In the sub-Saharan African context, a woman is at a greater risk of experiencing maternal morbidity or mortality each time she conceives. Maternal deaths are significantly higher in sub Saharan Africa than in

other regions of the world. The incidence of maternal mortality signifies, to a large extent, the level of development the country has attained (WHO, 1999). Estimates of maternal deaths worldwide indicate a gap among developed and developing nations, with values ranging from 9 maternal deaths per 100,000 live births in the developed world to 650 and 450 maternal deaths per 100,000 live births in developing nations and Ghana respectively (WHO, 2009).

Also, rapid population growth can put undue pressure on a nation's resources. Women who give birth to many unwanted children may fast increase consumption levels and needs in the nation. Educational, health, transport, housing and recreational facilities become overstretched and may not suffice for the needs of the entire population, thus hindering development. Unwanted births certainly place both social and economic demands on families which may not be able to meet such costs in rapidly urbanising contexts. For example, Myhrman et al. (1995) suggest that the educational attainment of children reported as unwanted are lower than those considered wanted by their parents.

A sure and effective way to limit the menace of maternal mortality and unwanted pregnancies or births is by the use of contraceptives. Contraceptives reduce the occurrence of pregnancies, especially unwanted pregnancies, thereby reducing the risk of dying from complications of pregnancy and childbirth. According to the 2008 Ghana Demographic and Health Survey the contraceptive prevalence rate among currently married women was 24 percent, the second highest in the West African sub region, with the use of modern methods nearly doubling over the preceding 15 years from 10 percent in 1993 to 17 percent in 2008. However, unmet need for contraception among married women is marked at 42% though knowledge of any contraceptive method is almost universal in Ghana, i.e. about 98 percent of all women. The GDHS identifies that 35% of Ghanaian women have an unmet need for

family planning, the figure reaching as high as 50% in the Central Region (GSS et al., 2009). Access to contraception reduces the risk of unwanted pregnancy, death in childbirth, and in the case of condoms the risk of STI's. Among the barriers to contraceptive use is the absence or the lack of power on the part of women due to social, cultural and economic challenges that confront them.

Attainment of the Millennium Development Goals seems like a mirage if universal access to family planning and reproductive health cannot be guaranteed (PAI, 2013). Fulfilling the global demand for family planning can significantly reduce the costs of achieving the U.N. targets, especially in maternal health and education. Investment in reproductive health and family planning can help countries accelerate progress cost-effectively towards achieving the MDGs (PAI, 2013). Any attempt at poverty-reduction will be inadequate if sexual and reproductive health issues continue to be marginalised (Sinding, 2005).

Most studies on reproductive health have concentrated on socioeconomic and demographic characteristics of women or proxy indicators of autonomy, with very little emphasis on the direct indicators of autonomy in decision making and reproductive health behaviour. This study therefore seeks to understand how women's autonomy affects their reproductive health by answering the following questions:

i. What is the degree of autonomy of married women in the household?

ii. To what extent is contraceptive use a function of a woman's autonomy?

iii. What aspect of women's autonomy affects their contraceptive use?

iv. Do husband's characteristics influence women's contraceptive use?

1.3 Rationale

The relevance and timeliness of this study is supported by a number of reasons. Many studies in parts of South East Asia, Latin America and sub Saharan Africa have proven that autonomy maximises women's potential for better reproductive health behaviours. These studies, many of which have been conducted in Asia, have demonstrated that autonomy on its own and in combination with other socioeconomic and demographic characteristics precipitates favourable reproductive health outcomes (Kamiya 2009; Do and Kurimoto 2012; Blanc 2001; Bloom et al. 2001; Acharya et al. 2010). In spite of this, not much research has been done in Ghana particularly about the relationship between women's autonomy and their reproductive health behaviours.

Furthermore, this study focuses not only on how respondents' background characteristics may affect their reproductive health behaviour but also looks at how these characteristics determine their autonomy and the impact of autonomy on their reproductive health behaviour. Family planning programmes have not taken into account the peculiar socio-cultural context or circumstance in which men have significant and perhaps more say than women in reproductive decision-making (Dodoo, 1998).

Ghana's sex ratio is 95.7 according to the 2010 Population and Housing Census Report, which means that the ratio of females to males is higher. The status and autonomy of the greater part of our population is equally an important objective as is our national development. Optimum reproductive health as a component of overall health status of women is an indicator of our human development.

Hence, the necessity of this study which reviews what has been learnt about the role of autonomy in determining reproductive health utilising data from the GDHS 2008 to examine the extent of women's autonomy across the nation and its impact on the poor state of reproductive health cannot be overemphasised.

1.4 Objectives

As a general objective, the study seeks to determine the extent to which women's autonomy predicts reproductive health behaviour in Ghana.

Specifically, the study seeks:

i. to assess whether the two indicators of women's autonomy employed in the study are associated with contraceptive use in Ghana.
ii. to identify which aspect of women's autonomy is more likely to be associated with contraceptive use in Ghana.
iii. to identify the demographic and socio-economic factors that influence contraceptive use in Ghana.
iv. to explore the link between husbands'/partners' characteristics and women's contraceptive use.
v. to make recommendations for researchers and reproductive health policy makers.

1.5 Organisation of the Study

The study consists of seven chapters. Chapter One comprises of background information, the problem statement, the objectives of the study and the rationale for the

study. Chapter Two includes the literature review, the conceptual framework and hypotheses and the Chapter Three consists of the methodology employed for the study.

Chapter Four uses descriptive statistics to examine and describe the distribution of the respondents by their background characteristics, autonomy levels and other control variables that are considered important in the study. The dependent variables are also described.

Chapter Five examines bivariate relationships between various independent variables and the autonomy variables and contraceptive use. In the sixth chapter, binary logistic regression models are employed to identify the determinants of contraceptive use, as well as to examine the link between women's autonomy and contraceptive use, while controlling for background factors.

The final chapter provides a summary of the study findings, conclusions drawn from the results and their policy implications.

CHAPTER TWO
LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

2.1 Literature Review

There is increasing knowledge through growing evidence of the relationship between women's autonomy and their reproductive health. Results from previous studies show varying degrees of the effects of women's autonomy on reproductive health behaviours in different areas of the world using different sources of data and methods. This section reviews studies on the concept of autonomy, the factors that influence women's autonomy and the effect of autonomy on reproductive health behaviours.

2.1.1 The Concept of Autonomy

Though studies have been conducted with regards to women's status, women's empowerment and women's autonomy to describe women's gendered position in relation to men, they essentially capture different facets of power in gender relations.

Women's status is explained by Dixon-Mueller (1998) and Mason (1987) as the degree of access to and control over material and social resources within the family, community and society at large (Bannerman, 2010). Women's empowerment is defined by the World Bank (2002) as the expansion of freedom of choice and action to shape one's life, a definition which encompasses the process of change and agency (Do and Kurimoto 2012). Autonomy has been defined as "the ability to influence and control one's personal environment" (Safilios-Rothschild, 1982) and "the capacity to obtain information and make decisions about one's private concerns and those of one's intimates" (Dyson and Moore, 1983). Agarwala and Lynch (2006) note that these definitions highlight the important implications that women's autonomy can have on women and their families and that the term autonomy reflects the extent to which women exert control over their own lives within the families in which they live, at any given point in time (Jejeebhoy, 2000). Autonomy has been

equated with mechanisms used to alter rigid gender stratification (Connell 1987; Ferree and Hall 1996, Agarwala and Lynch 2006).

Autonomy, studies have shown, is influenced both by women's characteristics as well as their social and cultural settings. Jejeebhoy (1996) demonstrates that behaviour changes by women are boosted by their acquisition of autonomy. Thus, she writes that "while women's autonomy is conditioned largely by gender stratification and patriarchal authority in the society in which they live, education can also increase a woman's autonomy."

2.1.2 Autonomy: A Multidimensional Concept

Autonomy is not a homogenous construct that is represented accurately by a single measure. Researchers, until quite recently, used to measure autonomy as a one-dimensional concept with such proxy variables as education, employment or income, which Woldemicael (2009) notes may underestimate or estimate incorrectly the total effects of other variables. These one-dimensional proxies, or indirect measures, are highly imperfect and have grave policy implications, especially when used to analyze the predictors and effects of autonomy (Balk 1994; Jejeebhoy 1991; Vlassoff 1994; Agarwala and Lynch 2006) and may not accurately reflect the effect of social stratification, for instance, in a patriarchal society.

Agarwala and Lynch (2006) reveal that the inherent weaknesses and limitations of using indirect proxies vary. The main weakness is that proxies make comparative research on autonomy difficult due to the fact that they are extremely context dependent (confirmed by Bloom et al. 2001) and do not provide ample evidence for how well they capture the construct of autonomy, not showing how various proxies are correlated with one another and to autonomy. Another weakness is that proxies blur the channels through which autonomy works, making it difficult to determine whether the effect is directly that of the proxy or

mediated by autonomy. Finally, proxies measure autonomy as a one-dimensional concept, thus failing to reveal which aspects of women's autonomy are most significant with regards to specific outcomes.

It is imperative therefore that studies on the impact of women's autonomy on demographic and health outcomes should use direct measures reflecting women's degree of control in their lives because autonomy is comprised of multiple dimensions which are each determined by, and predict, different socioeconomic and demographic factors (Balk 1994, 1997; Das Gupta 1996; Schuler and Hashemi 1994; Jejeebhoy 1991, 1995). The direct measures of autonomy consist of indicators that are categorized into different dimensions, such as access to and control over resources, participation in economic and child-related decisions, mobility, freedom from domestic violence, self-esteem, and political awareness and participation (Balk 1994, 1997; Jejeebhoy 2000; Morgan and Niraula 1995; Agarwala and Lynch, 2006). Agarwala and Lynch (2006) refine their measurement of women's autonomy to constitute four indices i.e. autonomy from violence; family decision-making autonomy, community involvement autonomy and household economic autonomy. They caution that researchers should continue to study autonomy as a single multidimensional concept.

2.1.3 Determinants of Autonomy

Given the convention that women's autonomy is a key intervening mechanism between women's status or background characteristics and reproductive health outcomes (Jejeebhoy 1996, 1995; Morgan and Niraula 1995; Presser 1997) and the fact that women lack such autonomy in many cultures, it is important to get a better understanding of the determinants of women's autonomy and how they vary across sociocultural contexts (Kritz

and Makinwa-Adebusoye 1997; Acharya et al. 2010). Research findings indicate that women's decision-making autonomy is closely linked to women's characteristics and the social settings in which they live.

Sathar and Kazi (1997) find that women's age and family structure are the strongest determinants of women's authority in rural Punjab, Pakistan where older women and women in nuclear households are more likely than other women to participate in family decisions. This finding is corroborated by Acharya et al. (2010) whose study in Nepal reveal that women's autonomy in decision making is positively associated with their age, number of surviving children and employment. Bloom et al. (2001) identify in addition to these factors that in some parts of India and South Asia maintaining ties with natal kin is also significant in predicting women's autonomy.

Economic status has also been linked with women's autonomy since it guarantees women greater power to negotiate on social and family issues (Healton et al. 2005; Bloom et al. 2001; Malhotra 1997). Controlling income is a more crucial determinant of autonomy than merely contributing to the generation of income which increases household income that may solely be controlled by the husband (Anderson and Eswaran 2007). However, the issue of causality arises when considering the relationship between economic status and autonomy as Basu (2006) argues that the say a woman has in household matters is determined by her earnings but her work activity itself is an outcome of her existing bargaining power.

Healton et al. (2005) note however that, due to the multidimensionality of autonomy and the fact that the measurement of autonomy is not fully developed, certainty of causality may tend to be problematic. They note, from their studies in three Latin American countries, that the various indicators correlate differently with the different dimensions of autonomy in different contexts.

2.1.4 Women's Autonomy and Reproductive Health Behaviour

A number of studies have investigated the links between power in sexual relationships and reproductive health behaviours such as fertility preference and actual fertility, family planning, pregnancy and delivery care to name a few (Saleem and Bobak 2005; Kamiya 2011; Bloom et al. 2001; Blanc 2001; Woldemicael 2009; Dodoo 1998; Do and Kurimoto 2012). Of the various factors impeding women's access to reproductive healthcare in developing countries, empirical studies have increasingly realised female autonomy as important in furthering access (Kamiya 2011) since their use of modern contraceptives, for instance, may be restricted by their lack of decision-making power (Do and Kurimoto 2012). The socio-cultural context conditions the relationship of women's individual-level characteristics to decision-making, and autonomy is a key intervening mediator between women's status and reproductive outcomes (Jejeebhoy 2000). Gender-based power inequalities restrict open communication between partners about reproductive health decisions as well as women's access to reproductive health services (Acharya 2010).

Domestic violence restricts a woman's ability to achieve her reproductive intentions by inhibiting her adoption of contraception and further increasing unwanted pregnancy (Stephenson et al. 2008). Ezeh (1993), Bawah et al. (1999), Phillips et al. (2006) and Akafuah (2008) agree that many Ghanaian women who used contraceptives feared physical abuse and reprisals from their husbands and extended family members. Hussain and Khan (2008) suggest that in investigating the dynamics of contraceptive use the issue of sexual violence be considered as a factor that leads to unsafe sex and unplanned pregnancies.

Roy and Nijaran (2004) find from their study on the direct indicators of women's autonomy in India that women with greater control over economic resources use

contraceptives more than women without control over resources. Financial autonomy increases women's access to maternal and reproductive healthcare (Kamiya 2011).

Woldemicael (2009) posits that although the different dimensions of women's autonomy influence the reproductive outcome variables differently in terms of magnitude and statistical significance, most of them have a strong connection. She identifies women's final say in decisions regarding day-to-day household purchases and spousal communication as significant predictors of fertility preferences and ever-use of modern contraception.

Using the 2000 Pakistan Reproductive Health and Family Planning Survey, Saleem and Bobak (2005) find that decision-making autonomy, but not movement autonomy is significantly associated with both lifetime and current contraceptive use but it does not seem to mediate the relationship between women's education and contraception.

The GDHS 2008 report indicates that a woman's desire and ability to control her fertility and her choice of contraceptive method are in part affected by her status in the household and her own sense of empowerment (GSS 2009).

2.1.5 Correlates of reproductive health behaviour

Different studies have highlighted the roles played by various demographic, social, economic and cultural factors in determining reproductive health behaviour. These factors interact with each other to influence health behaviours.

Young married women experience higher levels of maternal illness and mortality when they bear children than do older women. They also may be exposed to greater risk of STI's especially when their partners are more sexually experienced and much older (UN 2005). Bannerman (2010) identifies that younger women are more likely than older women

to have an unmet need for contraceptives than older women and may have a lack of financial power in accessing health services.

Higher education significantly raises maternal skills and self-confidence, increases exposure to information and alters the way in which others (not men only) respond to women (Das Gupta 1990). DeRose et al. (2002) posit that schooling is widely acknowledged to be the most promising means of reducing fertility in the developing world. Education delays marriage and increases the probability a woman will never marry. It stimulates aspirations for a higher standard of living and increased investments in fewer children (Le Vine et al. 1991). Husband's/partner's education is significant in predicting his understanding and agreement with the use of contraceptives (Boateng and Dodoo 2005; Casique 2001) and tolerating his wife's differences in opinion i.e. egalitarian (Boateng and Dodoo 2005).

Some religions tend to provide an element of reward to those who produce large families in terms of approval, social status, and blessings (Lehrer 2004; Doctor et al. 2009) whereas others stress the importance of individual agency in ways that diminish the role of traditional institutional determinants of reproduction (Doctor et al. 2009).

2.1.6 Shortfall of the literature

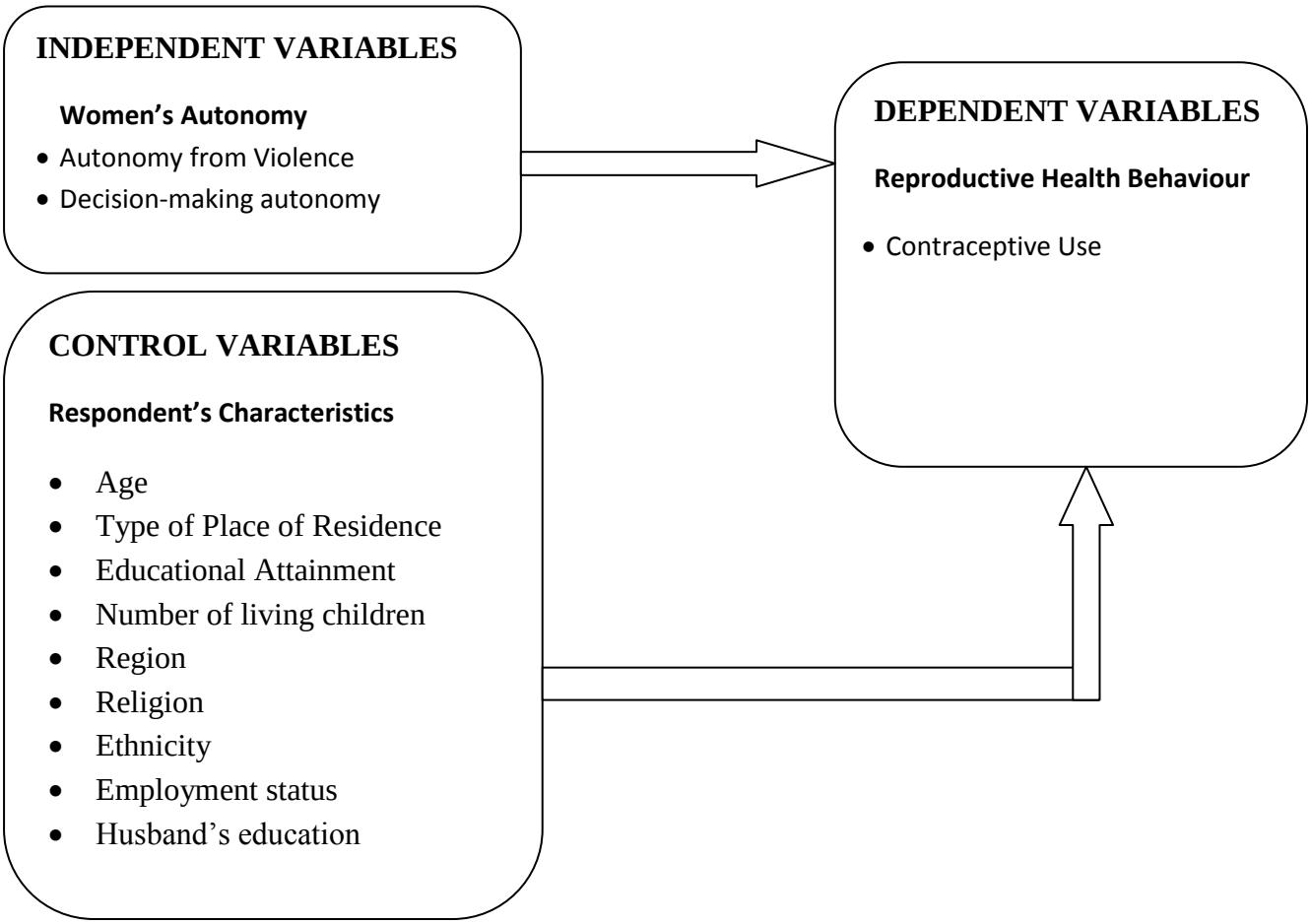
A major shortfall of the existing literature is the lack of homogeneity in the measurement of women's autonomy. Definitions and measurement variables have been chosen at the whim of individual researchers. A further shortcoming is the focus on women and their gendered position neglecting the socio-cultural construction of men and their influences, especially with regards to reproductive health behaviour. Therefore, a study which investigates the relationships between a woman's autonomy from different dimensions and its associations with reproductive behaviour is much needed.

2.2 Conceptual Framework

The review of literature on women's autonomy and reproductive health shows there exists a relationship between women's autonomy, some selected demographic and socioeconomic variables, and reproductive health behaviour in Figure 1.

The independent variable, women's autonomy, as illustrated in the framework indicates that it may have an influence on reproductive health behaviour. The control variables, as depicted, may also directly influence reproductive behaviour. It must be noted however for the sake of this study that, women's autonomy is considered as an independent variable and some of the illustrated background variables are employed as control variables. Some studies have studied how women's autonomy or status mediates between the control variables in this study and contraceptive use (Dodoo 2008, Bannerman 2010, Blanc 2001). However, the objective of this study is to assess the independent effect of autonomy on reproductive behaviour. Hence, the construction of this conceptual framework is guided by these studies but modified to a large extent.

Figure 2.1: Conceptual Framework showing the relationship between women's autonomy and reproductive health behaviour



Source: Author's modification of Blanc (2001), Dodoo (2008) and Bannerman (2010)

Family decision-making autonomy is considered an independent variable in the model, since it has been found to be an important dimension of autonomy. A woman's ability to make decisions concerning children's healthcare, her own mobility and healthcare is key in determining her reproductive health behaviour, particularly contraceptive use.

Autonomy from violence is included as an index to measure women's autonomy in this study. The threat or actual presence of domestic violence is expected to determine a woman's contraceptive use. Where there is a threat or actual violence women are less likely to use contraceptives than where women are free from violence.

Age is a very important demographic variable that predicts a woman's level of decision-making autonomy and her reproductive health. Age is an important determinant of maturity, exposure to risk of sexual activity, child bearing and social reproduction. Younger women usually have less financial power than their older counterparts and therefore may encounter greater challenges in accessing health facilities. According to the GDHS 2008, the proportion of currently married women currently using any modern method of contraception rises with age from 8 percent of those age 15-19 to 19 percent among those age 35-39and 40-44, after which it declines. Likewise, women with more living children are expected to adopt contraception to control their fertility.

Educational attainment is included in the model because of its relationship with reproductive health. It is expected to lower the number of children by imparting knowledge about successful contraceptive use, conferring attitudes favouring small families, and increasing women's ability to implement fertility goals.

Employment is positively related to women's autonomy. It is expected that women who are employed for cash will be more likely to afford and use modern contraceptive methods and services. Also, their employment will possibly serve as a incentive for them to control their fertility in order not to frustrate their economic activities. Women who are not employed are likely to be financially disadvantaged and hence be less likely to afford and use contraceptives.

An important potential effect of type of place of residence on a person's reproductive health behaviour exists, typically with respect to the differing levels of facilities or opportunities available in each type of residence. The type of place and region of residence determine the kind of opportunities, services, information, facilities and resources that one is able to access. A woman who resides in an urban area is likely to be better exposed to good

services and information about her reproductive health than her rural counterpart. Likewise, certain regions are more endowed than others with respect to health services.

Ethnic affiliations are identified as cultural backgrounds for gender roles and type of lineage or inheritance systems. Ethnic background may affect a woman's reproductive health behaviour (consider 'trokosi' and female genital mutilation). The role of religion as a determinant of changing reproductive behaviour is difficult to disentangle from other underlying influences. Religious beliefs about fertility and birth control can influence the contraceptive behaviour of women. With an open resistance to modern contraceptive use by the Catholic Church, catholic respondents are less likely than other religious sects to use contraceptives. Husband's/partner's education is included due to its significance in predicting his agreement with the use of contraceptives (Boateng and Dodoo 2005; Casique 2001) and tolerating his wife's differences in opinion i.e. egalitarian (Boateng and Dodoo 2005).

With the above independent and intermediate variables, the study explores the relationship between women's autonomy and their reproductive behaviour i.e. contraceptive use.

2.3 Hypotheses

Following from the related literature and the relationships in the conceptual framework (Figure 2.1) the following hypotheses are examined in this study.

i. Women with autonomy from violence are more likely to use contraceptives than women with no autonomy from violence.

ii. Women with high decision-making autonomy have an increased likelihood of contraceptive use than women with low autonomy.

iii. Decision-making autonomy is more significant in determining contraceptive use than autonomy from violence.

iv. Women with partners with some level of education are more likely to use contraceptives than women whose partners have no education.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This section provides background information on the source and nature of the data used for the study, sample selection, categorisation of variables and the methods of analysis used to show the necessary relationships between the variables.

3.2 Source of Data

The primary and sole source of data for the study was the 2008 Ghana Demographic and Health Survey (GDHS) carried out by the Ghana Statistical Service and the Ghana Health Service. The 2008 GDHS is the fifth of a series that have been carried out in Ghana every five years since 1988. The 2008 survey collected information from 4,916 women between the ages of 15 to 49 years and from 4,568 men aged 15 to 59 years from 6,141 households over a three-month period, from early September to late November 2008.

Respondents were selected throughout the ten administrative regions of Ghana through a two-stage probability sampling technique. In the 2008 GDHS, 412 enumeration areas (EA) were first selected, using a cluster sampling technique and then, a stratified probability sampling technique enabled 6,600 households to be selected from the chosen EAs and all members of these households who met the selection criteria were interviewed (GSS et al. 2009).

In addition to detailed information on socioeconomic backgrounds, fertility, marriage, sexual activity, fertility preferences, awareness and use of family planning methods, breastfeeding practices, nutritional status of women and young children, childhood mortality, maternal and child health, awareness and behaviour regarding HIV/AIDS, and other sexually transmitted infections (STIs), the 2008 GDHS collected information on domestic violence,

malaria and use of mosquito nets, and carried out anaemia testing and anthropometric measurements for women and children. The 2008 GDHS covered more issues than, and is thus an improvement upon, preceding surveys.

The information obtained from the survey is nationally representative, and therefore, can be generalized to the entire population. The primary instruments used to collect the data from the field consist of women's, men's and household questionnaires. This study uses information solely from the women's questionnaire, which provides the required data on women, their partners and their reproductive health behaviours.

3.3 Sample Design and Selection

The women's data file utilized in this study originally contains 4,916 female respondents. The data are weighted and missing cases filtered out to obtain 2,876 women who were either married or cohabiting with their partners since these are the focus of women's reproductive behaviour. In the survey, the domestic violence (DV) module was administered to women in two-thirds of households selected for the individual interview and only one eligible person, randomly selected, in each household was administered the questions on violence. Since this module is employed in the measurement of an aspect of autonomy, analysis involving it could only include respondents for the DV module. Therefore, married or cohabiting women in the DV module were further sampled out specifically for analysis involving data on DV. This gave a separate sample of 1,425 that were analysed separately from the first group for a different dimension of autonomy. These 1,425 respondents are included in analyses involving all 2,876 respondents.

3.4 Methods of Data Analysis

The statistical analysis software package IBM SPSS Statistics (Version 20) was used for both the descriptive and inferential analyses. Age data, frequencies, cross-tabulations, regression outputs and results of trend analyses were displayed using tables.

Univariate analyses are conducted to show the proportions of respondents with various characteristics as well as their autonomy levels and current contraceptive use. This is made up of descriptive statistics showing frequencies and percentages in tables. Bivariate analyses are carried out to examine significant differences between the demographic and socio-economic characteristics of the respondents and women's autonomy as well as their contraceptive use. Cross tabulations are conducted to examine the association between the partners' background characteristics and their autonomy and contraceptive use. Chi-square tests are performed to determine whether or not the observed associations were statistically significant. Multivariate analyses, specifically binary logistic regression models, are employed to determine which background variables were likely to influence a woman's contraceptive use and also which aspects of autonomy influence the women's reproductive health behaviour and to what extent.

It is necessary to note that since there are two different samples in this study, univariate, bivariate and multivariate analyses are carried out on two levels in each chapter. The analysis on the first level is on all 2,876 respondents while on the second level it is on only the 1,425 respondents for the DV module.

3.5 Variables in the study

There are three groups of variables in the study; independent, control and dependent variables.

Independent Variables

Guided by recommendations by Woldemicael (2009), Agarwala and Lynch (2006), Jeheebhoy and Sathar (2001) that measurement of autonomy should be considered in various dimensions women's autonomy is measured by two indices in this study: autonomy from violence and decision-making autonomy. Each of these indices is a composite variable, combining responses to a set or sets of questions.

Autonomy from violence measures the amount of autonomy a woman has from emotional or physical violence perpetrated by a partner. It combines responses to a set of nine questions with the same preamble "(Does/Did your (last) husband/partner ever do any of the following things to you:

a. *Push you, shake you, or throw something at you?*
b. *Slap you?*
c. *Twist your arm or pull your hair?*
d. *Punch you with his fist or with something that could hurt you?*
e. *Kick you, drag you or beat you up?*
f. *Try to choke you or burn you on purpose?*
g. *Threaten or attack you with a knife, gun or any other weapon?*
h. *Physically force you to have sexual intercourse with him even when you did not want to?*
i. *Force you to perform any sexual acts you did not want to?*

Because the above questions indicate negative attitudes they are coded as 0=yes and 1=no. A scale ranging from 0 – 9 is created on which a score of 9 indicates autonomy since that would mean that the partner has not experienced any of the nine forms of violence, whereas 0-8 indicates no autonomy from violence as partner would have experienced at least one form of violence. An experience of any threat or actual violence asked about in the questionnaire deprives a woman of autonomy from violence.

Decision-making autonomy, measures a woman's access to and control of her health, mobility, large household purchases and fertility. The questions are about who (usually) makes decisions about:

a. *Healthcare for yourself?*
b. *Visits to your family or relatives?*
c. *How many children to have?*
d. *Major household purchases?*

If the respondent alone or jointly with her husband makes the decision, a score of 1 is allocated while a score of 0 is given for any other response. A maximum sum of 4 can be scored for this index. New categories are thus created for the index where 4=high autonomy, 2-3=moderate autonomy and 0-1=low autonomy.

Dependent Variable

The indicator of reproductive health behaviour used in the study is contraceptive use. This is a dichotomous variable which measures current use. Respondents are either using "Any method" or "No method". Traditional, folkloric and modern methods of contraceptives were categorised as "Any method" while non use of any type of contraception was referred to as "No method". To elicit the desired response, respondents

were asked; "are you currently doing something or using any method to delay or avoid getting pregnant?"

Control Variables

The independent variables include both the respondents' personal characteristics and their partners' characteristics. Respondents' personal characteristics include age, number of living children, type of place of residence, region, educational attainment, religion, ethnicity and employment status. The husband's educational attainment is also considered in the study. Table 3.1 shows the various measures of the independent variables used in the study.

Table 3.1 Levels of measurement of the independent variables

Variable	**Measurement**
Age	15-19 20-24 25-29 30-34 35-39 40-44 45-49
Number of living children	0 1- 2 3- 4 5+
Type of place of residence	Urban Rural

Educational Attainment (Respondent)	No education Primary Middle/JSS Secondary +
Region	Western Region Central Region Greater Accra Region Volta Region Eastern Region Ashanti Region Brong Ahafo Region Northern Region Upper West Region Upper East Region
Religion	Catholic Protestant(Anglican, Presbyterian, Methodist) Pentecostal/Charismatic (Charismatic, Pentecostal, Other Christian groups) Moslem Traditional/Spiritualist No religion/Other
Ethnicity	Akan Ewe/Ga-Dangme Mole Dagbani/Grussi/Gurma/Mande Others (Guan, others)

Wealth quintile	Poorest Poorer Middle Richer Richest
Employment Status	Not employed Unpaid employment Paid employment
Educational Attainment (Partner)	No education Primary Secondary Higher Don't know

3.6 Limitations of the Data

Not all women were selected and administered the questions on violence; hence some cases are lost during some of the analyses. This also makes comparative analyses between the two dimensions of autonomy quite problematic. Also, the data used to determine women's autonomy fail to account for gendered economic, social and cultural realities that women experience in their everyday lives. In computing the autonomy variables, weight was not placed on any of the items though they may have varying levels of importance to respondents. The number of household decisions in which a respondent participates as a measure of her autonomy may pose some challenges especially in their relevance to reproductive health behaviour.

CHAPTER FOUR

DEMOGRAPHIC, SOCIO-ECONOMIC CHARACTERISTICS AND AUTONOMY LEVELS OF RESPONDENTS

4.1 Introduction

Reproductive health behaviour, in this case contraceptive use, is influenced by various factors. The background characteristics of the study population are thus essential in the analysis of the factors that influence women's autonomy and their reproductive behaviours. This section describes the demographic and socio economic characteristics of the respondents, partners'/husbands' educational status and household wealth quintile. The section provides information on the frequencies and relative frequencies of the various categories or measures of the variables used in the study. The characteristics considered here, as indicated in Chapter 1, are influenced by literature on previous studies showing their impact on women's autonomy and also on their reproductive health behaviours. The chapter is divided into two main sections. The first section provides information on all respondents for whom decision-making autonomy is computed while the second section provides information on women to whom the domestic violence questionnaire was administered in the survey, and thus for whom violence from autonomy is computed.

4.2 Characteristics of respondents for whom decision making autonomy is computed

Age of woman

Age of respondents is a continuous variable between 15 and 49 measured by five-year groups i.e. 15-19, 20-24 ... 45-49. Table 4.1 shows a fair distribution with the modal age group being 25-29 with a 21.3 percent representation. The lowest age group 15-19 and the highest age group 45-49 are the least represented with 3 and approximately 11 percent

representation respectively. The mean age of respondents in the study is 32.81 with a standard deviation of 8.16.

Table 4.1 Distribution of respondents by age groups

Age	Frequency	Percent in category
15-19	85	3.0
20-24	414	14.4
25-29	612	21.3
30-34	539	18.7
35-39	527	18.3
40-44	380	13.2
45-49	319	11.1
Total	**2876**	**100.0**

Source: Computed from GDHS (2008) Data Mean: 32.81 Std. Deviation: 8.16

Educational Attainment

Education is a categorical variable measured in terms of formal education attained by survey respondents. Though they can be quite influential in their impact on women's autonomy and reproductive health behaviour, adult literacy programmes, exposure to extension services and other forms of informal education are not assessed since they are not easily quantifiable or due to paucity of such data. In this study, respondents are categorised according to the highest level of formal education completed. From the data, about 70% of respondents have had at least some form of education, with the highest proportion (36.8%)

having attained middle school or JSS while just 11.3% have had secondary education or higher.

Table 4.2 Distribution of respondents by education attainment

Educational attainment	Frequency	Percentage
No education	855	29.7
Primary	638	22.2
Middle/JSS	1058	36.8
Secondary +	325	11.3
Total	**2876**	**100**

Source: Computed from GDHS (2008) Data

Type of place of residence

Respondents are categorized as either staying in a rural or an urban area. In this study, urban refers to a settlement with a population of 5000 or more people whereas the opposite defines a rural residence. The table shows a near 58% of rural dwellers.

Table 4.3 Distribution of respondents by type of place of residence

Type of place of residence	Frequency	Percent
Urban	1216	42.3
Rural	1660	57.7
Total	**2876**	**100.0**

Source: Computed from GDHS (2008) Data

Region of residence

Respondents for the GDHS were interviewed from all the ten administrative regions of Ghana. The Ashanti Region is most represented with 18.8 percent against a 2.8 representation of the Upper West Region, the least.

Table 4.4 Distribution of respondents by region of residence

Region	Frequency	Percent
Western	261	9.1
Central	254	8.8
Greater Accra	422	14.7
Volta	290	10.1
Eastern	252	8.8
Ashanti	542	18.8
Brong Ahafo	267	9.3
Northern	338	11.7
Upper East	168	5.8
Upper West	82	2.8
Total	**2876**	**100.0**

Source: Computed from GDHS (2008) Data

Employment status

Employment status is categorised by the respondent being either employed or not employed. A total of 14 cases are missing from the data; however, of the remaining 2862 that are used in the analysis, a large majority (91.6%) were employed at the time of the survey. Although the majority of respondents in the study were employed, about 12 percent were not paid in cash for their work at the time of the survey.

Table 4.5 Distribution of respondents by employment status

Employment status	Frequency	Percent
Unemployed	254	8.9
Employed not for cash	351	12.2
Employed for cash	2271	79.0
Total	2862	100.0

Source: Computed from GDHS (2008) Data 14 missing cases

Religion

Religious beliefs and norms can have some considerable impact on the sexual and reproductive health of women. It is evident from Table 4.6 that nearly a half of the respondents report to be Pentecostal, Charismatic or belong to other Christian groups. The lowest proportions of respondents (3.8%) have no religion.

Table 4.6 Percent distribution of respondents by religion

Religion	**Frequency**	**Percent**
Catholic	363	12.7
Protestant	429	14.9
Pentecostal/Charismatic/Other Christian	1338	46.5
Moslem	473	16.5
Traditional/Spiritualist/Other	162	5.6
No Religion	111	3.8
Total	**2875**	**100**

Source: Computed from GDHS (2008) Data

Ethnicity

Ethnicity is coded in four categories based on similarities in traditional lineage systems, geographical proximity and other cultural practices which determine women's status. These are Akan, Ewe/Ga-Dangme, Mole-Dagbani/Grussi/Gruma/Mande, and Others. The single largest ethnic group is the Akan constituting close to a half of the sample used in the study. The "other" ethnic minorities altogether make up about 6% of the study sample.

Table 4.7 Distribution of respondents by ethnicity

Ethnicity	Frequency	Percent
Akan	1382	48.0
Ewe/Ga-Dangme	564	19.6
Mole-Dagbani/Grussi/Gruma/Mande	756	26.3
Other	174	6.0
Total	**2876**	**100**

Source: Computed from GDHS (2008) Data

Number of Living Children

The number of living children a woman has is included in the model because it is expected to influence contraceptive use and a woman's claim of ideal family size. The results from the univariate analysis show that the highest proportion of respondents have one or two children. The respondents with no children are the least represented making up 8.4% of the study sample

Table 4.8 Distribution of respondents by number of living children

Number of living children	Frequency	Percent
0	240	8.4
1-2	1079	37.5
3-4	915	31.8
5+	641	22.3
Total	**2876**	**100**

Source: Computed from GDHS (2008) Data

Wealth quintile

The distribution of the study sample by their wealth status is shown in the following table. Each of the wealth quintiles has about a fifth of the respondents.

Table 4.9 Distribution of respondents by number of living children

Wealth quintile	Frequency	Percentage
Poorest	573	19.9
Poorer	577	20.1
Middle	525	18.3
Richer	600	20.9
Richest	601	20.9
Total	2876	100.0

Source: Computed from GDHS (2008) Data

Partner's educational status

A woman's partner's education is an important factor of a woman's contraceptive use, as indicated in the literature review. Table 4.9 shows a majority of respondents' husbands (56.6%) have at least had secondary education. However, a few of the respondents (4.1%) could not provide information on partners' educational attainment.

Table 4.9 Distribution of respondents by partners' educational attainment

Educational attainment	Frequency	Percentage
No education	621	21.7
Primary	216	7.5
Secondary	1618	56.6
Higher	288	10.1
Don't know	118	4.1
Total	**2861**	**100**

Source: Computed from GDHS (2008) Data 15 missing cases

Decision-making autonomy

As evidenced by the information from the table that follows, a relatively small proportion of the respondents reported a low level of decision-making autonomy, leaving about 91.5% with at least some level of autonomy i.e. middle and high decision-making autonomy. Table 4.11 shows the distribution of respondents by their decision-making autonomy.

Table 4.11 Distribution of respondents by decision-making autonomy

Decision-making autonomy	Frequency	Percent
Low autonomy	243	8.5
Moderate autonomy	1384	48.1
High autonomy	1249	43.4
Total	**2876**	**100.0**

Source: Computed from GDHS (2008) Data

Contraceptive use

Contraceptive use, the dependent variable, is a dichotomous categorical variable. The results displayed in Table 4.12 suggest that 76.5% of respondents are not current users of contraception while 23.5% are current users.

Table 4.12 Distribution of respondents by contraceptive use

Contraceptive use	Frequency	Percent
No method	2200	76.5
Any method	676	23.5
Total	**2876**	**100.0**

Source: Computed from GDHS (2008) Data

4.3 Characteristics of respondents for whom autonomy from violence is computed

As indicated in the Methodology section of the previous chapter not all women involved in the entire survey were administered the questionnaire on domestic violence, hence the autonomy from violence variable is computed for only those to whom the questionnaire was administered.

Autonomy from Violence

Majority of the respondents (about $^{4}/_{5}$) are categorised as having some autonomy from violence. The table shows that a majority of about 79% reported autonomy from violence i.e. they had not experienced any of the forms of violence or threat asked about in the survey from their partners.

Table 4.13 Distribution of respondents by autonomy from violence

Autonomy from violence	Frequency	Percent
Autonomous	1126	79.3
Not autonomous	295	20.7
Total	**1421**	**100.0**

Source: Computed from GDHS (2008) Data *4 missing cases

Characteristics of respondents for whom autonomy from violence index is computed

Table 4.14 gives a description of the background characteristics of the respondents to whom the questionnaire on domestic violence was administered. Approximately the same patterns are observed as with the previous sample in the distribution of respondents by the various background characteristics.

Table 4.14 Distribution of respondents by their background characteristics

Variable	Frequency	Percent
Age group		
15-19	49	3.4
20-24	207	14.5
25-29	313	21.9
30-34	266	18.6
35-39	267	18.7
40-44	183	12.8
45-49	142	9.9
Educational Attainment*		
None	408	28.7
Primary	326	22.9
Middle/JSS	520	36.5
Secondary plus	170	12.0
Type of place of residence		
Urban	593	41.6
Rural	832	58.4
Region		
Western	139	9.8
Central	132	9.2
Greater Accra	196	13.8
Volta	149	10.5
Eastern	127	8.9
Ashanti	270	19.0

Brong Ahafo	132	9.3
Northern	154	10.8
Upper East	83	5.8
Upper West	42	2.9
Ethnicity		
Akan	701	49.3
Ewe/Ga-Dangme	267	18.7
Mole-Dagbani/Grussi/Gruma/Mande	373	26.2
Other	83	5.8
Religion*		
Catholic	174	12.2
Protestant	215	15.1
Pentecostal/Charismatic/Other Christian	675	47.5
Moslem	226	15.9
Traditionalist/Spiritualist/Others	75	5.3
No religion	58	4.1
Number of living children		
0	118	8.3
1-2	547	38.4
3-4	457	32.1
5+	303	21.2
Employment status*		
Not employed	124	8.7
Employed not for cash	179	12.6
Employed for cash	1121	78.7

Wealth quintile		
Poorest	287	20.1
Poorer	282	19.8
Middle	263	18.5
Richer	288	20.2
Richest	305	21.4
Partner's education*		
No education	288	20.3
Primary	103	7.3
Middle/JSS	619	43.7
Secondary/SSS	189	13.3
Higher	159	11.2
Don't know	60	4.2
Contraceptive Use		
No method	1106	77.6
Any method	319	22.4

Total number of respondents: 1425 *Sum of frequencies <1425 due to missing cases
Source: Computed from GDHS2008 data

CHAPTER FIVE

BIVARIATE RELATIONSHIPS BETWEEN AUTONOMY, BACKGROUND CHARACTERISTICS AND CONTRACEPTIVE USE

5.1 Introduction

This chapter examines the bivariate relationships between the two indices of autonomy, the various background characteristics and contraceptive use among the respondents. The analyses show the relationships between the various independent, control and dependent variables and measures the association between them. The chi-square test statistic is used to assess the significance of the association between the independent or control variables and contraceptive use, with significance set at an alpha value of 0.05 i.e. 95% confidence level. Therefore, if the chi-square test yields an asymptotic significance value greater than 0.05 there is no significant association between the independent variable and contraceptive use. Like the previous chapter, this is in two sections and thus two different groups of bivariate analysis are conducted. The difference between the two sections arises from the difference in sample sizes which is due to the fact that autonomy from violence could not be measured for all respondents for whom decision-making autonomy and the other controls were computed.

5.2 Decision-making autonomy and contraceptive use

5.2.1 Contraceptive use by women's decision-making autonomy

Women's decision-making autonomy, as used in the study, is not significantly associated with contraceptive use at the 95% confidence level. The lack of association is an interesting find which supports findings by Mumtaz and Salway (2009), Bannerman (2010), Fikree et al. (2001), and Sathar et al (1997) that show weak or no relationship between their

decision-making autonomy and women's reproductive health. However, it contradicts findings by Bloom at al. (2001), Schuler and Hashemi (1994), Dharmalingam and Morgan (1996), and Woldemicael (2009) which show some strong connection between women's decision-making autonomy and use of contraception or other reproductive health behaviours. The contradiction may be due to sampling differences and the variables used in the definition and measure of women's decision-making autonomy. Notably, as depicted in Table 5.1, the category reporting the highest contraceptive use is the group with moderate autonomy (24.7%), followed by high autonomy women (23.2%) and those with low autonomy (18.4%).

Table 5.1 Percentage distribution of women's contraceptive use by their decision-making autonomy

Decision-making autonomy	Contraceptive use (%)		Percent	Total
	No method	Any method		
Low autonomy	81.6	18.4	100.0	244
Moderate autonomy	75.3	24.7	100.0	1384
High autonomy	76.8	23.2	100.0	1249
Total	2200	676	100.0	2876
χ^2=4.650		df=2		Asymp. Sig = .098

Source: Computed from GDHS 2008 data

5.2.2 Contraceptive use by women's background characteristics

Each of the background characteristics employed in this study as control variables, with the exception of respondents' age, has a statistically significant association with

contraceptive use. The results depicted in Table 5.2 confirm that educational attainment is highly significant in predicting contraceptive use. The proportion of respondents who use contraceptives increases with levels of educational attainment. Among women with no education, 13.6% use contraceptives and the figure rises with increasing levels of education to 30.5% of respondents with secondary education or higher using contraceptives.

The same relationship is observed with partner's educational attainment where the proportion of respondents using contraceptives increases from 11.3% of respondents whose partners had no education to 29.2% of respondents whose partners had secondary education and higher. Finally, with regards to age, the proportion of respondents using contraceptives increases from 14.1% among the 15-19 age group to 27.6% among the 40-44 year group and then drops significantly to 20.1% among the 45-49 year group.

Table 5.2 Percent distribution of contraceptive use by background characteristics

Background characteristics	Contraceptive use (%)		Percent	Total
	No method	Any method		
Respondents' age				
15-19	85.9	14.1	100.0	85
20-24	77.6	22.4	100.0	414
25-29	77.0	23.0	100.0	612
30-34	76.7	23.3	100.0	539
35-39	74.2	25.8	100.0	527
40-44	72.4	27.6	100.0	380
45-49	79.9	20.1	100.0	319
χ^2=11.772	df=6		Asymp. Sig = .067	

Table 5.2 cont/d Percent distribution of contraceptive use by background characteristics

Background characteristics	Contraceptive use (%)		Percent	Total
	No method	Any method		
Educational attainment				
None	86.4	13.6	100.0	855
Primary	73.4	26.6	100.0	638
Middle/JSS	72.6	27.4	100.0	1058
Secondary plus	69.5	30.5	100.0	325
χ^2=67.811	df=3		Asymp. Sig = .000	
Type of place of residence				
Urban	72.9	27.1	100.0	1216
Rural	79.1	20.9	100.0	1660
χ^2=15.157	df=1		Asymp. Sig = .000	
Ethnicity				
Akan	73.4	26.6	100.0	1382
Ewe/Ga-Dangme	69.4	30.6	100.0	564
Mole-Dagbani/Grussi/Gruma/Mande	86.5	13.5	100.0	756
Other	80.3	19.7	100.0	174
χ^2=66.591	df=3		Asymp. Sig = .000	
Religion				
Catholic	74.0	26.0	100.0	363
Protestant	72.0	28.0	100.0	429
Pentecostal/Charismatic/Other Christian	73.9	26.1	100.0	1338
Moslem	87.6	12.4	100.0	473
Traditional/Spiritualist/Other	81.0	19.0	100.0	162
No Religion	78.4	21.6	100.0	111
χ^2=45.229	df=5		Asymp. Sig = .000	

Table 5.2 cont/d Percent distribution of contraceptive use by background characteristics

Background characteristics	Contraceptive use (%)		Percent	Total
	No method	Any method		
Region of residence				
Western	80.8	19.2	100.0	261
Central	77.2	22.8	100.0	254
Greater Accra	67.3	32.7	100.0	422
Volta	71.4	28.6	100.0	290
Eastern	75.8	24.2	100.0	252
Ashanti	72.9	27.1	100.0	542
Brong Ahafo	71.2	28.8	100.0	267
Northern	94.1	5.9	100.0	338
Upper East	85.1	14.9	100.0	168
Upper West	78.0	22.0	100.0	82
χ^2=100.144	df=9		Asymp. Sig = .000	
Number of living children				
0	82.9	17.1	100.0	240
1-2	79.7	20.3	100.0	1079
3-4	72.7	27.3	100.0	915
5+	74.1	25.9	100.0	641
χ^2=21.133	df=3		Asymp. Sig = .000	
Employment status				
Not employed	81.9	18.1	100.0	254
Employed not for cash	83.2	16.8	100.0	351
Employed for cash	74.9	25.1	100.0	2271
χ^2=16.253	df=2		Asymp. Sig = .000	

Table 5.2 cont/d Percent distribution of contraceptive use by background characteristics

Background characteristics	Contraceptive use (%)		Percent	Total
	No method	Any method		
Wealth quintile*				
Poorest	85.8	14.2	100.0	573
Poorer	79.7	20.3	100.0	577
Middle	78.1	21.9	100.0	525
Richer	71.0	29.0	100.0	600
Richest	68.6	31.4	100.0	601
χ^2=63.072	df=4		Asymp. Sig = .000	
Partner's Education*				
None	88.7	11.3	100.0	621
Primary	78.2	21.8	100.0	216
Secondary	72.2	27.8	100.0	1618
Higher	70.8	29.2	100.0	288
Don't know	81.4	18.6	100.0	118
χ^2=75.388	df=3		Asymp. Sig = .000	

Source: Computed from GDHS 2008 dataset

Type of place of residence shows high statistical significance in predicting contraceptive use. While 27.1% of urban women use contraceptives, 20.9% of rural respondents use contraceptives. Region of residence also has a significant association with contraceptive use. Contraceptive use is highest in the Greater Accra Region where 32.7% of respondents report contraceptive use while the least proportion of married women using contraceptives is reported in the Northern Region at 5.9%. The Greater Accra Region which

is largely urban has the highest proportion of literate women whereas the Northern Region has the highest proportion of illiterate women. Similarly, exposure to mass media is greatest in the Greater Accra Region (GSS et al., 2009).

Respondents from the various ethnic groups show wide disparities in contraceptive use. Contraceptive use is highest among the Ewe/Ga-Dangme (30.6%) while the Mole-Dagbani, Grussi, Gruma and Mande record the least proportion of respondents using contraceptives. Like ethnicity, religion also shows a high level of statistically significant association with contraceptive use. Contraceptive use is least among Moslem respondents (12.0%) and highest among the Protestants which is comprised of Anglican, Presbyterian and Methodist respondents (28%).

The proportion of women who use contraceptives is highest among women employed for cash (25.1%) and least among women employed but not for cash (16.8%). Among the unemployed, contraceptive use is 18.1%. Finally, the number of living children a woman has a strong relationship with contraceptive use. Contraception is least used among women with no children (17.1%) but highest among women with 3-4 children.

5.3 Autonomy from violence and contraceptive use

5.3.1 Contraceptive use and women's autonomy from violence

Autonomy from violence, like decision-making autonomy, shows no statistically significant association with contraceptive use at the 95% confidence level. It is worth recognising that in spite of this a higher proportion (23.2%) of respondents who are not 'autonomous from violence' report contraceptive use opposed to 21.9% of respondents who are 'autonomous from violence'.

Table 5.3 Percentage distribution of women's contraceptive use by their autonomy from violence

Autonomy from violence	Contraceptive use (%)		Percent	Total
	No method	Any method		
Not Autonomous	76.8	23.2	100.0	244
Autonomous	78.1	21.9	100.0	1384
Total	1126(77.7%)	362(22.3%)	100.0	1573
χ^2=1.489		df=1		Asymp. Sig = .222

Computed from GDHS 2008 data

5.3.2 Women's contraceptive use by women's background characteristics using the autonomy from violence sample

There are a few significant differences between the results obtained from the bivariate analysis of women's background characteristics and contraceptive use using the autonomy from violence sample and those from Table 5.2. Education, for instance is very significant in predicting contraceptive use, with the proportion increasing from 13.7% among respondents with no education to 30.6% among those with secondary or higher education.

The type of place of residence, like region of residence, is also significantly associated with contraceptive use. Urban dwellers (26.3%) are more likely to use contraceptives than their rural counterparts (19.6%). The Northern Region reports the least contraceptive use (4.5%) while the Volta Region the highest (29.5%). With regards to ethnicity, the same pattern as in Table 5.2 was observed in Table 5.4. However, a different pattern was observed between religion and contraceptive use. Catholic respondents report the highest proportion of contraceptive use (28.2) whilst Moslems report 11.9% contraceptive prevalence, the least.

Table 5.4: Percentage distribution of women's contraceptive use by women's background characteristics using the autonomy from violence sample

Background characteristics	Contraceptive use		Percent	Total
	No method	Any method		
Respondents' age				
15-19	87.8	12.2	100.0	49
20-24	79.7	20.3	100.0	207
25-29	75.1	24.9	100.0	313
30-34	75.9	24.1	100.0	266
35-39	74.5	25.5	100.0	267
40-44	77.6	22.4	100.0	183
45-49	85.2	14.8	100.0	142
χ^2=11.172	df=6		Asymp. Sig = .083	
Education				
None	86.3	13.7	100.0	408
Primary	73.0	27.0	100.0	326
Middle/JSS	76.5	23.5	100.0	520
Secondary plus	69.4	30.6	100.0	170
χ^2=28.782	df=3		Asymp. Sig = .000	
Type of place of residence				
Urban	73.7	26.3	100.0	593
Rural	80.4	19.6	100.0	832
χ^2=8.915	df=1		Asymp. Sig = .003	

Table 5.4 contd.: Percentage distribution of women's contraceptive use by women's background characteristics using the autonomy from violence sample

Background characteristics	Contraceptive use		Percent	Total
	No method	Any method		
Ethnicity				
Akan	75.7	24.3	100.0	701
Ewe/Ga-Dangme	70.7	29.3	100.0	267
Mole-Dagbani/Grussi/Gruma/Mande	86.3	13.7	100.0	373
Other	77.1	22.9	100.0	83
χ^2=24.919	df=3		Asymp. Sig =.000	
Religion				
Catholic	71.8	28.2	100.0	174
Protestant	72.1	27.9	100.0	215
Pentecostal/Charismatic/Other Christians	76.6	23.4	100.0	675
Moslem	88.1	11.9	100.0	226
Traditionalist/Spiritualist/Others	78.7	21.3	100.0	75
No religion	82.5	17.5	100.0	58
χ^2=22.414	df=5		Asymp. Sig = .000	
Region				
Western	81.3	18.7	100.0	139
Central	81.1	18.9	100.0	132
Greater Accra	71.4	28.6	100.0	196
Volta	70.5	29.5	100.0	149
Eastern	74.0	26.0	100.0	127
Ashanti	73.3	26.7	100.0	270
Brong Ahafo	72.2	27.8	100.0	132

Northern	95.5	4.5	100.0	154
Upper East	88.0	12.0	100.0	83
Upper West	78.0	22.0	100.0	42
χ^2=50.029	df=9		Asymp. Sig = .000	
Number of living children				
0	81.4	18.6	100.0	118
1-2	82.4	17.6	100.0	244
3-4	78.9	21.1	100.0	303
5+	76.1	23.9	100.0	243
χ^2=	df=3		Asymp. Sig =.000	
Employment status				
Not employed	84.8	15.2	100.0	124
Employed not for cash	80.6	19.4	100.0	179
Employed for cash	76.3	23.7	100.0	1121
χ^2=5.762	df=2		Asymp. Sig =.056	
Wealth quintile				
Poorest	85.0	15.0	100.0	287
Poorer	81.2	18.8	100.0	282
Middle	79.8	20.2	100.0	263
Richer	71.9	28.1	100.0	288
Richest	70.5	29.5	100.0	305
χ^2=26.205	df=4		Asymp. Sig = .000	
Partner's Education*				
None	90.6	9.4	100.0	288
Primary	81.6	18.4	100.0	103
Secondary	72.9	27.1	100.0	808
Higher	73.6	26.4	100.0	159
Don't know	78.3	21.7	100.0	60
χ^2=40.576	df=4		Asymp. Sig = .000	

Computed from GDHS 2008

CHAPTER SIX

WOMEN'S AUTONOMY, BACKGROUND CHARACTERISTICS AND REPRODUCTIVE HEALTH BEHAVIOUR

6.1 Introduction

This chapter provides further analysis of the associations between the two dimensions of women's autonomy utilised in the study and contraceptive use while controlling for other individual and community level characteristics. Unlike the previous chapter, in which the relationship between just two variables i.e. autonomy or background characteristic and contraceptive use is examined, this chapter presents and discusses results of binary logistic regression models conducted to determine the extent of the influence of women's autonomy on their contraceptive use. This chapter is divided into two main sections. The first section examines the independent effect of women's decision-making autonomy on their contraceptive use while the second examines the independent effect of autonomy from violence on contraceptive use. The sample size of 2,876 with whom the effect of decision-making autonomy on contraceptive use is measured reduces to 1,425 in measuring the effect of autonomy from violence because only women who were administered survey questionnaire on domestic violence are considered.

6.2 Influence of Women's Decision-Making Autonomy on contraceptive use

This section uses two models to analyse how women's decision-making autonomy influences their contraceptive use. The first model assesses the influence of women's decision-making autonomy on their contraceptive use, not considering any control variables. The second model uses decision-making autonomy as a predictor variable while controlling for the background as well as partner's characteristics. For each of the variables used in the

model, one category is selected as the reference category. The chances of women with low, moderate and fair autonomy using any method of contraceptives is interpreted in terms of the odds ratios. An odds ratio that is equal to one indicates same odds of contraceptive use for a category as the reference category. An odds ratio greater than one indicates higher odds while an odds ratio less than one indicates lower odds of contraceptive use for a category than the reference category. The significance of a predictor variable in predicting contraceptive use, at an alpha value of 0.05, is measured using the likelihood ratios test.

Results of the binary logistic regression to determine the net effect of women's decision-making autonomy and respondents' background/partners' characteristics on contraceptive use are presented in Table 6.1.

Table 6.1 Binary logistic regression models showing the association between women's decision-making autonomy and contraceptive use

Model 1				
Parameter	**Estimate Beta (β*i*)**	**Standard error**	**Significance**	**Odds ratios= e^{β}**
Low autonomy (ref)				1.000
Moderate autonomy	.030	.245	.902	1.031
High autonomy	.138	.133	.299	1.148
Constant	-1.312	.098	.000	.269
Nagelkerke R^2=.001 -2 Log likelihood=1515.463				
Model 2				
Parameter	**Estimate Beta (β*i*)**	**Standard error**	**Significance**	**Odds Ratio= e^{β}**
Decision-making Autonomy				
Low autonomy(r)				1.000
Moderate Autonomy	-.282	.192	.143	.754
High Autonomy	-.015	.099	.882	.985
Respondents' age				
15-19 (r)				1.000
20-24	.730	.394	.064	2.074
25-29	1.050	.230	.000	2.857
30-34	.771	.202	.000	2.162
35-39	.529	.194	.006	1.698
40-44	.525	.185	.005	1.690
45-49	.560	.193	.004	1.750

Parameter	Estimate Beta (β*i*)	Standard error	Significance	Odds Ratio= e^{β}
Educational attainment				
None (r)				1.000
Primary	-.530	.208	.011	.589
Middle/JSS	.013	.184	.946	1.013
Secondary plus	-.138	.161	.391	.871
Type of place of residence				
Urban (r)				1.000
Rural	-.086	.131	.508	.917
Ethnicity				
Akan (r)				1.000
Ewe/Ga-Dangme	-.124	.235	.599	.884
Mole-Dagbani/Grussi/Gruma/Mande	.132	.246	.593	1.141
Other	-.121	.256	.636	.886
Religion				
Catholic (r)				1.000
Protestant	.164	.283	.561	1.179
Pentecostal/Charismatic/Other Christian	.120	.280	.667	1.128
Moslem	-.005	.262	.986	.995
Traditional/Spiritualist/Other	-.288	.310	.352	.750
No Religion	.363	.334	.277	1.438

Parameter	Estimate Beta (βi)	Standard error	Significance	Odds Ratio= e^{β}
Region of residence				
Western (r)				1.000
Central	-1.005	.366	.006	.366
Greater Accra	-.730	.366	.046	.482
Volta	-.392	.355	.269	.675
Eastern	-.462	.363	.202	.630
Ashanti	-.783	.364	.031	.457
Brong Ahafo	-.535	.340	.115	.586
Northern	-.085	.341	.804	.919
Upper East	-1.469	.371	.000	.230
Upper West	-.797	.369	.031	.451
Number of living children				
0 (r)				1.000
1-2	-1.552	.246	.000	.212
3-4	-1.109	.166	.000	.330
5+	-.357	.137	.009	.700
Employment status				
Not employed (r)				1.000
Employed not for cash	-.334	.186	.072	.716
Employed for cash	-.058	.178	.745	.944

Parameter	Estimate Beta (βi)	Standard error	Significance	Odds Ratio= e^{β}
Wealth quintile				
Poorest (r)				1.000
Poorer	-.728	.237	.002	.483
Middle	-.687	.197	.000	.503
Richer	-.558	.179	.002	.572
Richest	-.173	.147	.239	.841
Partner's Education				
None (r)				1.000
Primary	-.267	.292	.361	.766
Secondary	.159	.305	.603	1.172
Higher	.342	.257	.184	1.408
Don't know	.375	.294	.203	1.455
Constant	-.052	.590	.930	.950
Nagelkerke R^2==.133		-2 Log likelihood=2851.461		

r=Reference category Sample size=2876

In Model 1, the Nagelkerke R^2 value of 0.001 shows that only 0.1% of the variation in contraceptive use is explained by women's decision-making autonomy. This shows a poor fit. However, the results indicate that women with moderate and high decision-making autonomy are 1.03 times and 1.15 times respectively as likely as those women with low decision-making autonomy. In spite of this, the significance of the association between decision-making autonomy and women's contraceptive use is so weak that the hypothesis that women with high decision-making autonomy are more likely than those with low

decision-making autonomy to use contraceptives cannot be accepted. Consequently, the hypothesis that women's decision-making autonomy is more significant than their autonomy from violence can also not be accepted.

The results from Model 2 also indicate that current contraceptive use is not significantly influenced by women's decision-making autonomy. This is consistent with some study findings in Asia and sub-Saharan Africa, and even in Ghana, which did not show any associations between women's decision-making status/autonomy and some indicators of maternal or reproductive health behaviour (Bannerman 2010, Dodoo 2008, Furuta and Salway 2006, Riyami et al. 2004). It however conflicts with findings by Woldemicael (2009) on autonomy and reproductive preferences in Eritrea which showed strong connections between the two variables. In addition, it also contradicts Jejeebhoy's (2002) position that in India women's autonomy has an independent effect on contraceptive use, even after controlling for well-known determinants such as region, economic status, social variables such as education, and demographic factors such as age and parity.

It is worth noting, however, that having controlled for other variables in Model 2, the likelihood of contraceptive use is least among women with moderate decision-making autonomy who have a 75 percent chance of contraception using women with low decision-making autonomy as the reference category. Interestingly also, women with high decision making autonomy are 98.5% as likely as women with low autonomy to currently use any method of contraceptives. This finding and the lack of statistical significance in the relationship between women's decision-making autonomy and contraceptive use means that the hypothesis that women with higher levels of decision-making autonomy have an increased likelihood of contraceptive use than women with low levels of autonomy cannot be accepted but is rejected at a 95% confidence level.

Controlling for women's background characteristics as well as their husbands'/partners' characteristics in the model reveals those characteristics that have statistical relationships with women's contraceptive use. Respondent's age, educational attainment, region of residence, number of living children and wealth quintile are all found to be significant predictors of women's contraceptive use.

The age of a woman bears a significant relationship with her contraceptive use. With the exception of the 20-24 year age group, all other categories show some statistical significance in predicting contraceptive use. Table 5.2 (in the previous chapter) shows the proportion of women using contraception increasing with age up until 45-49 where it drops albeit not below that of age group 15-19. From Table 6.1 also, it can be inferred that the likelihood of contraceptive use is 2.85 times among women aged 25-29 as women aged 15-19. All the other age groups demonstrate significantly higher likelihood of contraceptive use than women aged 15-19. For instance, women aged 45-49 are 1.75 times as likely as those aged 15-19 and women aged 40-44 are about 1.7 times as likely as those aged 15-19 to use contraceptives.

Model 2 shows that women with primary education have a reduced likelihood (0.589) of contraceptive use than those with no education, contrary to findings from the bivariate analysis. When compared with the reference category i.e. women with no education, the significance of the relationship between the other categories of educational attainment and contraceptive use is weak. It appears however that, only those who have attained Middle/JSS level exhibit slightly higher likelihood (1.013) of contraceptive use than women with no education.

Region of residence shows a significant relationship with contraceptive use. The other nine regions show less likelihood of contraceptive use than the Western Region, the reference

category. The least likelihood of contraceptive use is among women in the Upper East Region (0.23) and the closest to the Western Region is the Northern Region. This is an interesting finding because at the bivariate level in Table 5.2, the Northern Region has the smallest proportion of contraceptive users at about 6%. Women in the Greater Accra Region who at the bivariate level have the highest proportion of contraceptive use, in the regression model show a 0.48 likelihood of contraceptive use as compared to women in the Western Region. In other words, for every hundred women who use contraceptives in the Western Region, 48% are likely to use contraceptives in the Greater Accra Region.

The number of living children a woman has also significantly predicts her contraceptive use. The results from the model show that women with 1-2 living children are 0.212 times as likely as those without children. This likelihood increases to 0.330 among women with 3-4 living children and 0.700 among those with 5 or more living children. Though the likelihood of contraceptive use is highest among women with no living children, among those with living children the likelihood of contraceptive use is highest among those with 5 or more living children.

The wealth status of a woman measured by her wealth quintile also exhibits statistical significance in predicting her contraceptive use. Women in the richest quintile are .841 times less likely than women in the poorest category to use contraceptives. Those in the poorer category are 0.572 times as likely as women in the poorest category to use contraceptives.

Religion shows no statistically significant relationship with contraceptive use at the multivariate level in this model. However, the results indicate that women who are Protestants, Pentecostal/Charismatic/Other Christian and those with no religion are more likely than Catholics to use contraceptives. Women in the Moslem and Traditionalist/Spiritualist/Other categories are less likely than Catholic women to use

contraceptives. McQuillan (2004) identifies that demographers struggle to explain why religion influences demographic behaviours in some settings but not in others. McQuillan further asserts that in some settings religious affiliation is not always important and just one of a number of memberships a person holds whereas in others it is a defining trait in individuals' lives. He however notes that religious influence has declined over time and its consequences are not uniform. It is becoming quite significant that information on religiosity rather than just religious affiliation would help determine its relevance in determining demographic and reproductive health behaviours. Lehrer (2004) also highlights the essence of considering the "complimentarity of religion" (i.e. affiliation of both spouses) and the entire economic and demographic background.

Husbands'/ partners' educational attainment bears weak significant relationship with contraceptive use. However, women whose husbands/partners have primary education are less likely (.766) than those whose husbands/partners have no education to use contraceptives. Women whose husbands/partners have secondary education and higher are 1.17 and 1.41 times, respectively, more likely than those whose husbands/partners have no education. Due to the weakness of the association, the hypothesis that women whose husbands have some education are more likely to use contraceptives than those whose partners have no education is rejected at the 95% confidence level.

Similarly, a woman's employment status has no significant relationship with her contraceptive use. However, compared to women who were not employed, women employed for cash are 0.94 times less likely and those employed but not for cash are 0.72 times less likely to use contraceptives. This finding suggests that likelihood of contraceptive use is least among women employed but not for cash. It further questions the general perception that women who are not employed are most disadvantaged in terms of contraceptive use. Other

variables which do not have any significant relationship with contraceptive use in this model are ethnicity and type of place of residence.

The model R^2 summary for the model with the decision-making autonomy variable only and the model with the decision-making autonomy variable as well as the controls are 0.001 and 0.133 respectively. This means that only 0.1% of the variation in contraceptive use can be explained in terms of decision-making autonomy while 13.3% of the variation is explained by all the variables in the second model. The huge difference between the R^2 values (0.132) suggests that women's decision-making autonomy is not a significant predictor of their contraceptive use.

6.3 Influence of Women's Autonomy from Violence on contraceptive use

This section, like the previous one, uses two models to analyse how women's freedom from threat or actual presence of domestic violence otherwise referred to as autonomy from violence influences their contraceptive use. The first model assesses the extent to which women's autonomy from violence influences their contraceptive use, without any control variables. The second model adds to autonomy from violence other background as well as partner's characteristics in order to control for their effects. For each of the variables used in the model, one category is selected as the reference category. The chance of women with or without autonomy from violence using any method of contraceptives is interpreted in terms of the odds ratios.

Table 6.2 shows results of the binary logistic regression to determine the net effect of women's autonomy from violence and respondents' background/partners' characteristics on contraceptive use.

Table 6.2 Binary logistic regression models showing the association between women's autonomy from violence and contraceptive use

Model 1				
Parameter	**Estimate Beta (β*i*)**	**Standard error**	**Significance**	**Odds= $e^{\beta i}$**
Autonomous(r)				
Not Autonomous	-.112	.154	.467	.894
Constant	-1.157	.137	.000	.314
Nagelkerke R^2=.001 -2 Log likelihood=1508.899				
Model 2				
Parameter	**Estimate Beta (β*i*)**	**Standard error**	**Significance**	**Odds= $e^{\beta i}$**
Autonomy from violence				
Autonomous (r)				
Not Autonomous	-.115	.169	.494	.891
Respondents' age				
15-19 (r)				
20-24	.998	.576	.083	2.713
25-29	1.295	.367	.000	3.651
30-34	1.323	.328	.000	3.756
35-39	.960	.313	.002	2.613
40-44	.856	.302	.005	2.354
45-49	.772	.325	.018	2.164

Parameter	Estimate Beta (β*i*)	Standard error	Significance	Odds= $e^{\beta i}$
Educational attainment				
None (r)				
Primary	-.586	.307	.057	.557
Middle/JSS	-.102	.264	.699	.903
Secondary plus	-.443	.232	.056	.642
Type of place of residence				
Urban (r)				
Rural	.114	.195	.560	1.121
Ethnicity				
Akan (r)				
Ewe/Ga-Dangme	-.419	.337	.213	.658
Mole-Dagbani/Grussi/Gruma/Mande	-.178	.353	.615	.837
Other	-.153	.364	.674	.858
Religion				
Catholic (r)				
Protestant	.375	.419	.371	1.455
Pentecostal/Charismatic/Other Christian	.308	.416	.458	1.361
Moslem	-.010	.390	.979	.990
Traditional/Spiritualist/Other	-.349	.458	.446	.705
No Religion	.658	.497	.185	1.930

Parameter	Estimate Beta (β*i*)	Standard error	Significance	Odds= $e^{\beta i}$
Region of residence				
Western (r)				
Central	-.961	.524	.067	.382
Greater Accra	-.774	.526	.141	.461
Volta	-.664	.514	.196	.515
Eastern	-.288	.512	.574	.750
Ashanti	-.604	.516	.242	.547
Brong Ahafo	-.475	.481	.324	.622
Northern	-.182	.491	.710	.833
Upper East	-2.014	.570	.000	.133
Upper West	-1.108	.547	.043	.330
Number of living children				
0 (r)				
1-2	-1.365	.351	.000	.255
3-4	-1.158	.252	.000	.314
5+	-.340	.208	.102	.712
Employment status				
Not employed (r)				
Employed not for cash	-.570	.287	.047	.566
Employed for cash	.243	.243	.319	1.275

Parameter	Estimate Beta (β*i*)	Standard error	Significance	Odds= $e^{\beta i}$
Wealth quintile				
Poorest (r)				
Poorer	-.501	.345	.147	.606
Middle	-.733	.297	.014	.480
Richer	-.581	.267	.029	.559
Richest	-.054	.222	.807	.947
Partner's Education				
None (r)				
Primary	-.944	.428	.027	.389
Secondary	-.387	.443	.382	.679
Higher	.169	.358	.637	1.184
Don't know	-.086	.411	.835	.918
Constant	.082	.876	.926	1.085
Nagelkerke R^2=.159 -2 Log likelihood=1344.876				
(r)=reference category Sample size=1425				

It may seem from the results of Model 1 in Table 6.2 reveal that women who do not have autonomy from violence are 0.89 times as likely as those with autonomy from violence to use contraceptives. Despite this finding which may support the hypothesis, the relationship between these two variables lacks statistical significance and so the hypothesis that autonomous women are more likely than non-autonomous women to use contraceptives cannot be accepted. Like Model 1 in Table 6.1, this model has a Nagelkerke R^2 value of

0.001, meaning that just 0.1% of the variation in contraceptive use can be explained in terms of women's autonomy from violence.

In Table 6.2, Model 2, where the background and husband's/partner's characteristics are included, the significance of the relationship between autonomy from violence and contraceptive use is further diminished. However, like in Model 1, it shows that women without autonomy from violence are 0.89 times as likely as women with autonomy from violence to use contraceptives. Again, the lack of statistical strength of this relationship means that the hypothesis cannot be accepted.

Some significant differences exist between the results presented in Table 6.2 and those presented in Table 6.1 which is made up of a larger sample size. The variables which show some significance in their relationship with contraceptive use include respondent's age, region of residence, number of living children, employment status and partner's education. However the patterns shown will be discussed.

With regards to age, again, with the exception of age group 20-24, all other categories show some statistical significance in predicting contraceptive use. Table 6.2 shows that the likelihood of contraceptive use is 3.7 times among women aged 25-29 as women aged 15-19. Also, women aged 45-49 are 2.2 times as likely as those aged 15-19 and women aged 40-44 are about 2.4 times as likely as those aged 15-19 to use contraceptives. Women aged 30-34 are about 3.8 times as likely as those in the 15-19 age group to use contraceptives and they (the 30-34 year olds) have the highest likelihood of contraceptive use.

With reference to the region of residence, the Western Region which is the reference category seems to have the highest likelihood of contraceptive use among women. Those with the least likelihood are women in Upper East Region who are 0.133 times as likely as

women in the Western Region to use contraceptives. Women in Greater Accra Region are 0.46 times as likely as those in the Western Region to use contraceptives.

The number of living children a woman has is a significant predictor of contraceptive use. It can be deduced from the results shown that the likelihood of contraceptive use is highest among women with no living children. Among women who have living children, the likelihood of contraceptive use is highest (0.712) among women with 5 or more living children and least (0.255) among those with 1-2 living children.

In this sample, after the binary logistic regression model both partner's education and woman's employment status seem to have some significance. Here, compared with women whose husbands/partners have no education, those whose partners have primary or secondary education are less likely to use contraceptives while those whose husbands have secondary education or higher are 1.18 times as likely to use contraceptives. Also, women employed for cash are 1.3 times as likely as those who are not employed while those who are employed but not for cash are 0.57 times as likely to use contraceptives. Wealth status also shows some significance in its relationship with contraceptive use. However, findings from this model indicate that the likelihood of contraceptive use is highest among the poorest wealth quintile and least among those in the middle wealth quintile.

Religion in this model does not show any significance with contraceptive use. Nonetheless, the results show that Protestants, Pentecostal/Charismatic/Other Christian women are more likely than Catholics to use contraceptives whereas women who are Moslem and Traditionalist/Spiritualist/Other religion are less likely than Catholic women to use contraceptives. Finally, it is worth noting that from this model, rural women are 1.12 times as likely as urban women to use contraceptives. Though this association lacks statistical significance, the finding questions the general belief that urban women are more

likely than rural women to use contraceptives and it conflicts with crosstab results in Table 5.4 which show higher proportions of contraceptive use among urban than rural women. It also contradicts the results in Table 6.1, Model 2 which suggest that rural women are less likely than urban women to use contraceptives. This difference in results may be due to inherent differences in the sample used in the analysis.

6.4 Summary discussion of results

The results show that neither women's decision-making autonomy nor their autonomy from violence is a significant predictor of contraceptive use among married women in Ghana. The extremely low Nagelkerke R^2 values for the two models in which only the autonomy variables are used show that women's decision-making autonomy and autonomy from violence are not significant predictors of their contraceptive use.

The results show an age effect on contraceptive use. Respondents between ages 25 and 34 exhibited the highest likelihood of contraceptive use while those between 15 and 19 had the least likelihood of contraceptive use. This confirms the finding by Ortayli and Malarcher (2010) that in all regions, women aged 15-19 have the lowest met need for contraception. An explanation for this phenomenon is that younger women 15-19 may often be faced with social and psychological barriers, in addition to possible hostility from service providers which older women do not face (Bannerman 2010).

Women in the Western Region have the highest likelihood of contraceptive use compared to women in any of the other regions. The least likelihood of contraceptive use is among women from the Upper East Region. Similar to findings by Westoff (2012) on modern method use in developing countries the association between rural-urban residence

and contraceptive use is mixed and not significant. Though evidence from other studies have shown that increasing education is associated with contraceptive use, the pattern is not very clear in this research. However, the odds of contraceptive use are least among respondents who have primary education and those who have secondary or higher education.

Wealth shows a very strong association with contraceptive use. Though at the bivariate level contraceptive use is seen to increase as wealth quintile goes up, at the multivariate level the pattern is not clear. The likelihood of contraceptive use is however greatest among women in the poorest wealth quintile and lowest among those in the middle and poorer wealth quintiles. Women's employment status and husband' education show some significance in the results from Table 6.2 but are not significant in Table 6.1.

In summary, the analyses show respondent's age, region of residence, number of living children, wealth status, respondent's employment and education and partner's education as significant predictors of women's contraceptive use. Women's autonomy, ethnicity, religion and type of place of residence do not appear significant in determining contraceptive use.

CHAPTER SEVEN

SUMMARY, CONCLUSION AND RECOMMENDATION

7.1 Summary of main findings

This study as its main objective sought to determine the extent of women's autonomy in Ghana and the degree to which it significantly predicts reproductive health behaviour in Ghana. The study sought to get details on the dimensions of autonomy that predict autonomy and compare it with findings of other related studies. As an innovation, two dimensions of women's autonomy were derived and their independent associations with reproductive health behaviour (measured by contraceptive use) measured while controlling for a battery of socio-economic and demographic variables. The study used data from the Ghana Demographic and Health Survey (2008) women's file. Only married women or women cohabiting with their partners were studied. Univariate, bivariate and multivariate analyses were on two levels each because two samples were used in analyses involving the two dimensions of autonomy employed.

The univariate analyses revealed that of the 2,876 women in the first sample about 43% were found to have high decision-making autonomy (autonomy in making all four decisions considered) while about 48% had moderate decision-making autonomy. The remaining 9% were found to have low decision-making autonomy in the home. The second level of the univariate analyses which included about 1,425 women showed that a large majority of about 79% had autonomy from violence while 21% had no autonomy from actual violence or the threat of violence. Contraceptive use was 23.5% and 22.4 % in the first and second samples respectively. This means that just about a quarter of Ghanaian women in union are current contraceptive users.

At the bivariate level, the relationship between women's autonomy and contraceptive use was tested for significance using the chi-square test at the 5% significance level. The relationship between respondents' socio-economic and demographic characteristics and contraceptive use was also tested. The test did not establish a significant relationship between either dimension of autonomy and contraceptive use. However, the crosstabs showed that contraceptive use was least among women with low decision-making autonomy and highest among women with moderate decision-making autonomy. Contraceptive use, interestingly, was higher among women with no autonomy from violence than among women with autonomy from violence. The educational attainment of respondents' partners or husbands showed a significant relationship with contraceptive use. Current contraceptive use is highest among women whose partners have secondary and higher education and least among women whose husbands have no education.

Among the socio-economic and demographic variables which showed significant relationship with contraceptive use in both levels of bivariate analysis are educational attainment, type of place of residence, region of residence, ethnicity, religion, wealth quintile and number of living children. Employment status showed some significance in the first level but not in the second while respondent's age showed no significance in both levels of analysis.

In the final stage of the analysis, two separate models were developed for each of the dimensions of autonomy which had different sample sizes. Each model further had two separate models within it. Binary logistic regression model was used to ascertain the relationship between the dimensions of autonomy, background, husband's/partner's characteristics and contraceptive use. The first model analysed the net effect of women's

decision-making autonomy while the second model analysed the net effect of their autonomy from violence on contraceptive use.

Results of the first model showed that women's decision-making autonomy had no significant effect on contraceptive use, even before other characteristics are controlled for. This finding contradicts the hypothesis that women with high decision-making autonomy are more likely than women with low decision-making autonomy to use contraceptives. Characteristics that emerged as significant predictors of women's contraceptive use are respondent's age, educational attainment, region of residence, number of living children and wealth quintile. The second model showed that women's autonomy from violence was not a significant determinant of their contraceptive use. Again, the finding contradicts the hypothesis that women with autonomy from violence are more likely than women with no autonomy from violence to use contraceptives. The second model showed that in addition to the significant predictors in the first model, partner's education and respondent's employment status were significant predictors of contraceptive use.

7.2 Recommendations

Findings of this study have implications for both research and policy making. The study shows the significant predictors of contraceptive use in Ghana. It also gives insight into the extent of the role of autonomy in reproductive health behaviour. Recommendations are thus made from this background.

It was evident from the study that younger women between 15 and 19 were least likely to use contraceptives. It is imperative on policy makers to implement interventions that delay their entry into union, such as raise the legal age of entry into union to 20. This will ensure that women are well-developed to make responsible reproductive health decisions.

Educational opportunities should be expanded for girls if positive reproductive health behaviour is to be promoted. Education exposes women to new ideas and enhances women's uptake of good reproductive health behaviours. Initiatives such as the Free Compulsory Universal Basic Education Programme (FCUBE) must be accelerated and their targets achieved.

The wealth status was found to be a significant determinant of reproductive health behaviour. Thus, financial barriers that restrict contraceptive access and use must be removed. As part of the National Health Insurance Scheme, modern contraceptive methods should be greatly subsidised and provided freely in less endowed parts of the country. Since region of residence is also key in determining contraceptive use, equity in the distribution of contraceptive services must be ensured in all regions of the country.

The study findings have implications for further research. A lack of standardised measure of autonomy, coupled with the fact that autonomy is embedded in social and cultural values and norms means that the validity of the measures of autonomy used may not necessarily apply to all cultural and social subgroups. There is the need for further qualitative and quantitative research to help determine how to standardise the measurement of autonomy. Further research should include other dimensions of autonomy in determining its impact on reproductive health behaviour.

7.3 Limitations of the study

Though the GDHS 2008 data is the most recent, availability of contraceptives may have changed over the past few years and may have resulted in modifications in contraceptive use or the patterns observed in the study. Besides, restricting the study sample to women who are either married or cohabiting means that the study findings are limited in

terms of generalisation. The results can only be applied to cohabiting or married women. The results for contraceptive non-use could also be confounded by primary infertility and pregnancy which the study does not account for.

7.4 Conclusion

Though knowledge of contraception is almost universal in Ghana, the contraceptive prevalence rate among married women is very low. The relationship between women's autonomy and their contraceptive use was explored to determine the degree of influence of the former on the latter. The dimensions of autonomy did not show any statistically significant association with contraceptive use. Wealth, respondent's age, number of living children, region of residence, and education were seen as significant. From this point of view, there is the need for policy makers to improve accessibility and affordability of family planning services equitably nationwide. Further research needs were highlighted to explore the intricacies of women's autonomy and how it influences their reproductive health behaviour.

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