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Gender-based violence and unintended pregnancy in Zimbabwe.

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UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

FACULTY OF HUMANITIES

SCHOOL OF SOCIAL SCIENCES

GENDER- BASED VIOLENCE AND UNINTENDED PREGNANCY IN ZIMBABWE.

A research report submitted to the school of Social Science, University of the Witwatersrand, Johannesburg, in partial fulfilment of the requirements for the degree of a Master of Arts in the field of Demography and Population Studies.

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Dedication

This work is dedicated to the memory of my grandfather, Emmanuel Jardine; my mother, Ellison and my father, Edward.

Acknowledgement

The completion of this report would not have been possible without the guidance, support, encouragement and constant prayers of individuals whom I am very grateful to. These individuals are:

- Professor Clifford Odimegwu; Head of Demography and Population Studies and my supervisor. He has never given up on my ability and been a constant guide and help throughout this process.
- Dr. Maletela Tuoane-Nkhasi; (Executive Manager: Health and Vital Statistics at Statistics South Africa) and Dr Susanna Ubomba-Jaswa (Manager at Statistics South Africa) for their constant encouragement, tremendous understanding, concern and support throughout.
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- My siblings; Earl, Leroy and Samantha, for their support.
- Jacques van Wyk, for always being understanding, for providing me with all the technical assistance I required and for his patience, care and constant encouragement.

Declaration

I, Aletia Kim Barkley, declare that this research report is my own original work. It is being submitted to the faculty of Humanities and Social Sciences, University of the Witwatersrand, Johannesburg in partial fulfilment of the requirements for the degree of Master of Arts in the field of Demography and Population Studies. This study has not been conducted or submitted as part or in full for any degree or examination at this university or any other institution to my knowledge.

Aletia Kim Barkley

Signature: _____

Date: _____

Table of Contents

Declaration **6**

Table of Contents **4**

Table of Figures **6**

List of Tables **6**

List of Abbreviations: **7**

Abstract: **8**

Chapter 1: Introduction **10**

1.1 Background: 10

1.2 Problem Statement: 12

1.3 Research question: 14

1.4 Research Objectives: 14

1.4.1 General objective: 14

1.4.2 Specific objectives: 14

1.4.3 Justification: 15

1.5 Definition of terms: 16

1.5.1 Gender-Based Violence: 16

1.5.2 Unintended Pregnancy: 16

1.6 Structure of the report: **16**

Chapter 2: Literature Review and Theoretical Framework: **17**

2.1 Introduction: 17

2.2 Literature Review: 17

2.2.1 Unintended pregnancy 17

2.2.2 Unintended pregnancy in Zimbabwe 19

2.2.3 Gender-based Violence 20

2.1.4 Gender-based Violence and unintended pregnancy 20

2.2 Theoretical and Conceptual Framework: 22

2.3 Summary: 24

CHAPTER 3: METHODOLOGY **26**

3.1. Introduction: 26

3.2. Study design: 26

3.2.1. The 2005/2006 ZDHS: 26

3.2.2 Questionnaire Design: 27

3.2.3 Training and Fieldwork 28

3.2.4 Data Processing 28

3.2.5 Study Population and sample size: 28

3.3 Variables and Variable Definitions: 29

3.3.1 Variable Definitions: 29
3.3.2 Dependent variable 33
3.4. Hypotheses: 33
3.5 Ethical Considerations: 33
3.6 Data Management: 34
3.7 Data Analysis: 34
3.8: Limitations of the study 35
Chapter 4: Results 38
4.1 Introduction: 38
4.2 Characteristics of Respondents: 38
4.2 Bivariate Analysis: 41
4.3 Multivariate Analysis: 46
4.4 Multivariate analysis, displaying the odds ratios of variable groups by socioeconomic, demographic and domestic violence characteristics: 46
4.5 Multivariate analysis of combined variables of socioeconomic, demographic and gender-based violence characteristics: 49
4.6 Summary: **53**
Chapter 5: Discussion, conclusion and recommendation 54
5.1 Discussion: 54
5.2 Conclusion: 57
5.3 Recommendations: 57
References: 60
Appendix: 64

Table of Figures

Figure 1: adapted framework for the study of gender violence and unintended pregnancy 24

List of Tables

Table 1: Variables used and their definitions..... 32

Table 2: Dependant Variables and their definitions..... 33

Table 3: Percentage of women who reported upon Physical, Sexual and Emotional Violence, ZDHS 2005-2006 3938

Table 4: Characteristics of women respondents who have participated in the Gender-based Violence module of the 2005-2006 ZDHS..... 39

Table 5: Bivariate Odds Ratios between unintended pregnancy and selected characteristics of abused women..... 43

Table 6: Multivariate logistic regressions assessing the association between cluster variables and unintended pregnancy 47

Table 7: Multivariate Analysis of combined socioeconomic, demographic and selected gender-based violence variables..... 50

Table 8: Odds ratios from multivariate logistic regression and bivariate logistics regressions in association differentials between gender-based variables and unintended pregnancy..... 52

List of Abbreviations:

CSO	Central Statistics Office
CSPro	Census and Survey Processing System
DHS	Demographic and Health Survey
GBV	Gender-based violence
PPS	Probability proportional to size
PRB	Population Reference Bureau
Stata	Data Analysis and Statistical Software for Professionals
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
WASN	Women and AIDS Support Network
ZDHS	Zimbabwe Demographic and Health Survey
ZMS	Zimbabwe Master Sample
ZNHSCP	Zimbabwe National Survey Compatibility Programme

Abstract:

BACKGROUND: This study examined the association between gender-based violence and unintended pregnancy in Zimbabwe. Various studies have identified factors associated with unintended pregnancy but the role of gender-based violence in unintended pregnancy has not been fully investigated. Gender-based violence is identified as a global public health concern and has reproductive health consequences.

METHODS: This study used the Zimbabwe Demographic and Health Survey (ZDHS) of 2005/ 2006 to explore the relationship between gender-based violence and unintended pregnancy. A total of 1 516 women were included in ZDHS. For the purpose of this study only women aged 15-49 who participated in the Domestic Violence Module and who reported to have given birth in the five years before the survey were selected. The outcome variable was pregnancy intent. The predictor variables were physical, emotional and sexual violence. These were recoded into binary variables. The responses for these were "yes" for women who reported that they had experienced a form of violence and "no" for those who had not. Data analysis consisted of three stages; univariate frequency distributions and, bivariate and multivariate analysis using logistic regression.

RESULTS: The study found that the experience of gender-based violence was prevalent in Zimbabwe. As 33.25% of women reported having experienced some form of physical violence and 33.71% suffered a form of emotional abuse. In the case of sexual violence, about 15.37% of women reported an experience thereof. Unintended pregnancies were reported by 30.67% respondents.

An association between gender-based violence and unintended pregnancy was found to exist. This is evident in both the bivariate and multivariate analyses. Women who have experience gender-based violence are 1.53 times more likely to report unintended pregnancy.

CONCLUSIONS: The findings have demonstrated a strong association between gender-based violence and unintended pregnancy in Zimbabwe. This has confirmed a similar study where GBV was found to be associated with negative child health outcomes in Zimbabwe (De Wet, 20007). It is thus necessary to policy review and the possibility of affording gender-based violence more attention in relation to reproductive health programs.

Chapter 1: Introduction

1.1 Background:

Unintended pregnancy is a growing trend in developing countries worldwide. Since the 1994 International Conference on Population and Development in Cairo, the issue of unintended pregnancy has become a major concern particularly in relation to the developing world due to the high rates thereof (World Population Data Sheet, 2008).

According to the Population Reference Bureau (PRB) 2011, Sub-Saharan Africans on average have the highest number of children, estimated at more than five children per woman. Zimbabwe's mid-year population for 2011 totalled at 12 084 00 and it was found to have a total fertility rate of 4.1 as compared to 2.5 for the world average. Of these births, it was established that 20% were estimated as mistimed pregnancies and 13% estimated as unwanted pregnancies (PRB, 2011). This may however not be a true reflection due to issues of inadequacy in measurement and reporting. Studies aimed at understanding the continued prevalence of unintended pregnancies have all specifically highlighted the demographic characteristics of women such as age, marital status, level of education, and so forth, as major confounding factors (Adetunji, 1998).

Gender-based violence is a concern in all areas of the world and has been found to be studied extensively. Female victims of abuse exercise limited control over their reproductive rights and are often unable to access appropriate medical care and provisions (De Wet, 2009). In view of this, it can be suggested that limited control over one's reproductive health could not only lead to unintended pregnancy but also to other complications such as disease and viruses.

Fertility has been high for many years until the 1960s and 1970s (Bongaarts, 1997). There has been a noticeable drop in fertility rates over the years. Fertility trends have however not been uniform and disparities between regions and places have been observed (United Nations, 1995). In comparison to higher estimates of declines in fertility in other developing countries, ranging from -42% in Asia to -25% in the Middle East and North Africa, it was found that Southern Africa had the lowest decline of only -9% (Bongaarts, 1997). The decline in fertility is described as a result of increasing use of contraceptives and an increasing control exercised by couples over their reproductive lives. While fertility may be perceived as being on the decline, it must however be noted that in the developing world, with the exception of China, it is found that one in every four births is in fact unintended (Bongaarts, 1997).

Determinants of fertility are said to be of two types: direct and indirect (Johnson, 2011). The direct (proximate) determinents are said to be behavioural methods used to reduce fertility. These are non-marriage, delaying conception, prolonged breastfeeding and lastly induced abortion. Indirect determinants are labelled as "background variables". They relate to the socioeconomic and contextual characteristics of women. Indirect determinants include the desired number of children, family planning, level of education, work status, and the type of residence (Johnson, 2011).

The Domestic Violence module in the Zimbabwe Demographic and Health Survey sought to verify the extent of the experience of violence by Zimbabwean women (ZDHS, 2007). It was found that 40,3% of women in Zimbabwe had in fact experienced some form of violence from their partner since the age of 15 (ZDHS, 2007). This illustrates that there is a high prevalence of gender-based violence within Zimbabwe.

It is evident that unintended pregnancy and gender-based violence are issues women in Zimbabwe are faced with and it is of importance to consider the possibility that they may be related. This study, therefore aims to explore the possible association between unintended pregnancy and gender-based violence in Zimbabwe.

1.2 Problem Statement:

The World Health Organisation (WHO) has noted that approximately more than 16 million women have unintended births each year. Of these, 95% are found to be that of teenage unwanted pregnancies in developing countries and more than 50% of these are from sub-Saharan Africa (Bessinger, 2002). Fertility declines have been noted in Zimbabwe since the 1980's but it is still found that it has a high level of births annually. In addition it was also found that the use of modern contraceptives was 57% for married women aged 15-49 (PRB, 2011). In 2008 it was found that there was an annual number of 418 000 births and of these, 20% were mistimed and 13% were unwanted (PRB: 2008). The use of contraception was also found to have relatively high rates, ranging from 60% for all methods of contraceptive used by married women and 46% among unmarried women (PRB: 2008).

Within the context of Zimbabwe, it is found that much of the society is centered upon a form of patriarchal elements and that many women may in fact not be allowed to exercise rights over their own reproductive health and thus there is a continuum of high fertility (Senanayake and Faulkner, 2003). In a USAID study undertaken by Borwankar, et. al. (2009), it was also illustrated that many of the women giving birth had incomplete schooling. One could suggest that this could facilitate the fact that they have limited rights on their reproductive health decisions and that they may be ignorant of their rights due to their lack of and/ or limited education (). Women with more education are said to exhibit the lowest incidence of violence (McCloskey, et. al., 2005).

Gender-Based Violence (GBV) is an occurrence which is unrecognized and underreported with limited reliable data concerning its prevalence, particularly within the African context (Borwankar, et. al., 2009). Studies found that among every married woman in Zimbabwe, 30% of the women in the 2005/06 DHS were physically abused by their husbands and 11% by someone other than their husband (Borwanker, et. al., 2009). It was also further stipulated that 8% of women in Zimbabwe were physically abused during pregnancy; 38% were victims of physical/sexual violence and as much as 47% were victims of physical/sexual and emotional abuse (Borwankar, et. al., 2009). In another study conducted by Musasa and Women and AIDS Support Network (WASN), in which nearly 1000 women over the age of 18 were included, it was found that gender violence was widespread in Zimbabwe as 15% of the women included in this study reported no experience of violence (Hof, et. al., 1999).

It is evident at this point that unintended pregnancy and gender-based violence are distinct social problems that require attention and action. Studies of these two problems have been carried out independently and in certain aspects very extensively, with particular focus on social outcomes. Within the African context, there has been very limited or no study of the relationship of these two social problems. Studies concerning unintended pregnancy have highlighted many factors but have not as such identified the role that gender-based violence may have on the outcome of unintended pregnancy; and/or that such a relationship may in fact exist.

1.3 Research question:

- Is there an association between gender-based violence and unintended pregnancy among women in Zimbabwe?

1.4 Research Objectives:

1.4.1 General objective:

- To examine the relationship between gender-based violence and unintended pregnancy in Zimbabwe in 2005/06.

1.4.2 Specific objectives:

- To examine the levels and patterns of gender-based violence in Zimbabwe.
- To examine the levels and patterns of unintended pregnancy among women in Zimbabwe.
- To examine the relationship between gender-based violence and unintended pregnancy among women in Zimbabwe.

1.4.3 Justification:

Unintended pregnancy and domestic violence are occurring incidents in Zimbabwe (ZDHS, 2007). They both form an important issue faced by Zimbabwean women and thus it is important to note the relationship between these in Zimbabwe. It has been noted that abused women have limited control over their reproductive rights and thus one may ask: "if an abused woman exercises limited reproductive rights would she be able to have an intended pregnancy?" (De Wet, 2009).

Gender-based violence specifically refers to the relationship between a woman and her partner in the context of this study. It does not extend to include the physical place where the violence may take place. UNICEF (2002) reported that domestic violence is usually an act by men who are related to the victims and does not include strangers.

Domestic violence is considered as a basic human rights violation and there has been increasing research into its burden on women's health, intergenerational effects and also the demographic consequences (United Nations General Assembly, 1991). The 2005/06 ZDHS represents the first domestic violence module included in the survey in Zimbabwe. Domestic violence has been included in the ZDHS as it has been identified as an increasing economic, human right and health issue in the country. Domestic violence imposes negative health consequences on the victims with special regard to women's reproductive health (ZDHS: 2007). A study in Algeria found that most women were abused by someone close to them and more likely for it to be within the home (Institut Nationale de Sante Publique, 2005).

Little attention has been afforded to the relationship between gender-based violence and unintended pregnancy issues in Southern Africa. This study is therefore necessary to provide more attention in this area for policy development and the general empowerment of women.

1.5 Definition of terms:

1.5.1 Gender-Based Violence:

This is any act of physical, emotional and/or sexual force or coercion directed towards a woman or girl from their intimate partner. Gender-based violence and domestic violence are used interchangeably throughout this study. Within the context of the ZDHS, domestic violence is defined as physical, sexual, emotional psychological and economic abuse committed by a person against a spouse, child or any member of the household (ZDHS, 2007).

1.5.2 Unintended Pregnancy:

For purposes of this study unintended pregnancy is used to refer to both unwanted and mistimed pregnancies.

1.6 Structure of the report:

This report discusses existing studies on unintended pregnancy, gender-based violence and the relationship between unintended pregnancy and gender-based violence in Chapter 2. Chapter 3 of the report provides a summary of the data sources and the methodology employed for analyses. The findings of the study are provided in Chapter 4. In this chapter, the findings are expressed in terms of the characteristics of the study population and the results of logistic regressions. The discussion of the findings is provided in Chapter 5 and the last chapter, Chapter 6, provides conclusion and recommendations of the study.

Chapter 2: Literature Review and Theoretical Framework:

2.1 Introduction:

This chapter discusses existing studies on unintended pregnancy, gender-based violence and the relationship between the two. The literatures reviewed are from an international and local scope. A theoretical framework is also included to show linkages of different variables which guide the analyses undertaken in Chapter 4 of this research.

2.2 Literature Review:

2.2.1 Unintended pregnancy

Fertility has been high for many years until the 1960s and 1970s (Bongaarts, 1997). There has been a noticeable drop in fertility rates over the years and it is argued that it will continue in the future. Fertility trends have however not been uniform and disparities between regions and places have been observed (United Nations, 1995). In comparison to higher estimates of fertility decline of other developing countries ranging from -42% in Asia to -25% in the Middle East and North Africa, it was found that Southern Africa had the lowest decline of only -9% (Bongaarts, 1997). The decline in fertility is described as a result of increasing use of contraceptives and an increasing control exercised by couples over their reproductive lives. Although fertility decline may be perceived as being on the decline, it must however be noted that in the developing world, with the exception of China, it is found that one in every four births is in fact unintended (Bongaarts, 1997).

Studies have indicated that information concerning unintended pregnancy is not always accurate as women may not be willing to admit that a pregnancy which results in a live birth may have been unintended (Stephenson, 1998). A study in Azerbaijan, Moldova and Ukraine assert that in countries where little to no family planning exists, women do not generally refer

to pregnancy as unintended particularly once the child has been born. The study also suggests that if DHS study does not capture pregnancies ending in abortion then the measure of unintended pregnancy is incomplete (Ismayilova, 2010). This point is also important to consider as an abortion could very well strengthen any study relating to unintended pregnancy. However, it will not be incorporated within this study due to unavailability of such data.

Studies have investigated the reasons behind ongoing and growing trends of unintended pregnancy in contemporary society. Advocacy of contraception is an aspect of daily life and family planning programmes are said to be readily available to all (Stephenson, et al., 2008). There have been initiatives centred upon reducing unplanned pregnancies and identifying the underlying factors which contribute to its occurrence. The trends have been cited above but it is apparent that in the context of Zimbabwe it is necessary to provide a more focussed enquiry into the nature thereof.

It has been argued that women who form part of traditional societies are at less risk of unwanted pregnancies as they tend to have desire for large families as compared to those of more modern societies (Bongaarts, 1997). In this regard, it can be argued that women from traditional societies are more inclined to have more children and little or no attempt to curb pregnancies and therefore fewer unintended pregnancies may be reported. Sub-Saharan Africa is considered to be managed by strong elements of patriarchal traditions and institutions particularly in regard to marriage and sexual unions (McCloskey, et. al., 2005). In view of this case, one may suggest that unintended pregnancy outcomes are a product of gender inequity. One may even take it a step further and suggest that this could be used as a base for the necessity for the study into gender-based violence and unintended pregnancy as gender inequity often results in violence.

The major determinants identified in most literature which may aid in explaining possible reasons for unintended pregnancy have been identified in one particular study conducted in Nigeria. The major finding in this study was that family planning counselling and information relating to reproductive health has been found to be negligible and thus there are experiences of unwanted pregnancies (Sedgh, et. al., 2006). Within this study it was also identified that unwanted pregnancy also poses health threats as pregnant women (or couples) may turn to induced abortion as a means to end the pregnancy (Sedgh, et. al., 2006). A study in Jamaica has identified the age at first sex as a factor which leads to incidence of unintended pregnancy (Noel, et. al., 2009). In the same study, it was also suggested that delaying age at first sex and lowering the number of sexual partners in adolescence would in fact help curb unintended teenage pregnancy (Noel, et ., 2009).

2.2.2 Unintended pregnancy in Zimbabwe

In an investigation into the prevalence of teenage pregnancy in Zimbabwe in 1999, it was established that societal norms, practise and expectations of girl and boy children were the major contributor of the prevalence rates (Hof and Richters, 1999). Certain sexual behaviours are considered acceptable for males and separate ones for females and thus women are often disallowed to control the sexual experiences and/or reproductive health (Senanayake, et. al., 2003).

In the Preliminary report of the 2011 ZDHS it was found that since 1985 (the first ZDHS) total fertility rates have declined from 5,4 (1988 ZDHS) to 3,8 (2005/06 ZDHS). In the preliminary report of the 2010/11 survey, an increase to 4,1 was observed (ZHDS, 2011). It was found that 33% of women said they wanted more children at a later stage and that 39% of women do not want more children. It was further stipulated that the more children a woman had the higher the likelihood that she will not want more children (ZDHS, 2005). It

was also identified that the more educated a women is, the greater chance she has of exercising her right to her family planning path and also her right to use contraception (ZDHS, 2011).

Studies concerning unintended pregnancy in Zimbabwe have not addressed the possibility that gender-based violence could be a contributing factor to the prevalence. It is therefore necessary for this study and others to explore this relationship.

2.2.3 Gender-based violence

In Zimbabwe it was found that 55% of divorced women, 28% of women with no children, 39% rural women as compared to 32% of urban women had reported on experiencing domestic violence (ZDHS, 2007). With regard to region, in Midlands, about 55% as compared to 18% in Bulawayo reported the experience of physical violence. Working women who were not paid on time (50%) reported some form of experience of domestic violence (ZDHS, 2007). With regard to education, it is found that the more education a woman has, the less violence she may experience. Violence was reported by 40% of women with only primary education as compared to only 28% of those with more than secondary education (ZDHS, 2007). With regard to sexual violence specifically, 25% of women reported that they had ever experienced sexual violence (ZDHS, 2007). It was found that rural women were more likely to have experienced sexual violence than urban women. Furthermore, Mashonaland East women were four times more likely to report sexual violence than women from Bulawayo).

2.1.4 Gender-based violence and unintended pregnancy

A number of studies have been carried out regarding gender-based violence and its various health outcomes for women on an international context. A study done in India found that a woman who is or has been physically abused by a partner was less likely to adopt the usage

of contraceptives (Stephenson, et. al., 2008). Another study found that in Colombia there is a moderate relationship between unplanned pregnancy and violence from an intimate partner (Pallito, 2004). Within this study it was suggested that if intimate partner violence was reduced or even eliminated in Columbia then the estimated unintended pregnancies would be fewer each year. This study found that unintended pregnancy is a direct result of sexual abuse but in the same way, women who reported physical abuse also illustrated an elevated risk to unintended pregnancy. Pallito (2004) also suggests that women who live in a particularly patriarchal society are particularly associated with high risk of unintended pregnancy. Based on this study, one can suggest that women living in these conditions exercise limited control over their fertility due to male dominance.

In Peru it was also found that some association existed between unintended pregnancy and intimate partner violence (Cripe, et. al., 2007). This study suggests that women experiencing emotional and/or physical abuse are most likely to submit to their partners sexually and thus giving up their reproductive rights. The findings of this study suggest that there is a need to include intimate partner violence screening and treatment in prenatal care and reproductive health settings.

Other studies carried out in Ecuador, Tanzania and India all basically point to issues such as: education level of the woman, a woman's age, marital status, economic circumstance and birth spacing planning as relevant factors. None of these studies, with the exception of the study in India in 2008, have acknowledged the potential contribution that gender-based violence may present. It is apparent that gender-based violence is not being awarded sufficient attention as a possible contributing factor to the continuous prevalence of unintended pregnancy in Sub-Saharan Africa. It is therefore hoped that this study would fill the void into this dimension and possibly clear the path for future research so as to refine this possible association more distinctly.

In a survey conducted by Puwer et. al. (1999) in India it was also found that pregnant women were vulnerable to domestic violence. The study shows that being pregnant increases the abuse by the intimate partner and in many cases women fear pregnancy. In this regard, it can be said that if a women in an already abusive relationship falls pregnant there is a chance that the pregnancy is most likely unintended.

2.2 Theoretical and Conceptual Framework:

The centrality of the theoretical framework used in this study will be derived from Adetunji's report: "*Unintended Childbearing in Developing Countries: Trends, Levels, and Determinants"* (1998). The overall theme in this report is centred upon the notion that family planning and reproductive health programmes are the key elements to ensure that women are enabled decision makers with regard to their reproductive health activity (Adetunji, 1998). It is argued that in developing countries a large proportion of women are reporting unintended pregnancy and the interest was to investigate why this occurrence is staggering in the developing world.

The author identifies two categories of pregnancy planning status and the several pathways which would denote them as unintended. The first category is "mistimed pregnancy". It is also referred to as mistimed childbearing and is defined as when a woman did not want to become pregnant at the time when she did with the child. It can also refer to the failure of timing births (Adetunji, 1998). Mistimed pregnancies can be considered as such due to work status perhaps when a woman is not working and also if they are subject to a birth plan and fall pregnant unexpectedly.

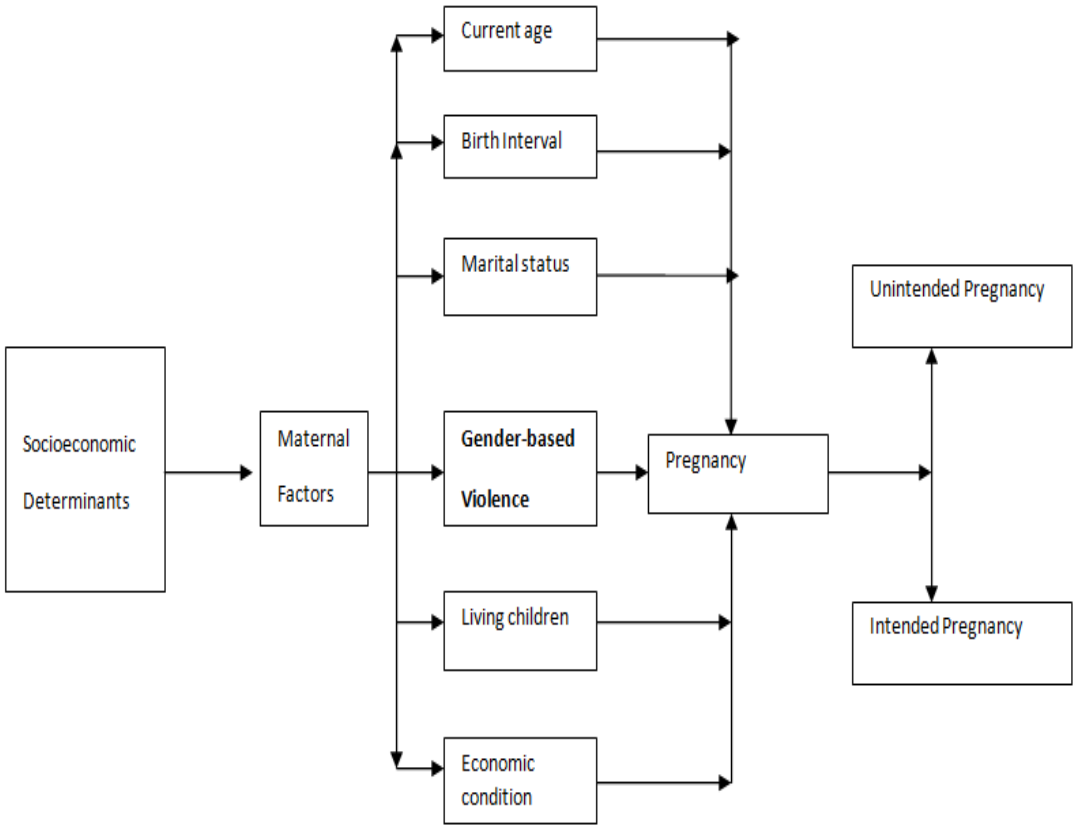
Unwanted pregnancy is described as a pregnancy which resulted after a woman has decided not to have a child or children. This decision could be a result of economic constraints or marital status, and even age.

Adetunji (1998) identifies factors which are classified as determinants of unintended pregnancy and these can be argued as being proximate determinants. These determinants are factors such as age of the woman, marital status, birth interval, economic condition, number of living children and education level.

The determinants identified suggest that a woman's socioeconomic status plays a role in reproductive decisions. As earlier demonstrated by Johnson (2002), level of education, work status, type of residence and parity all help decide on the intent of pregnancy amongst women.

This study will use these factors, with some modifications to include gender-based violence as a determinant. This will lead the way for future studies and will also open new avenues into the understanding of the prevalence of unintended pregnancy in Africa. Figure 1 below is a modified version of the framework proposed by Adetunji (1998). This figure illustrates how a woman exposed to the risk of pregnancy may have various influential factors contributing to the intent of pregnancy. As identified in studies from Tanzania and India and strengthened with the theories of Adetunji, the factors identified as major contributing factors to the intent of pregnancy are: birth interval, a woman's age, marital status, economic condition and number of living children. Gender-based violence is bolded in Figure 1 as new studies suggest it may play a role in the intent of pregnancy and as this study intends to explore this it has been added to the original model and thus modified to be included.

Figure 1: adapted framework for the study of gender violence and unintended pregnancy



Source: (Adetunji: 1998).

2.3 Summary:

The literature has discussed unintended pregnancy and gender-based violence as independent issues. There are also some cases in which gender-based violence has been explored as a possible contributing factor leading towards unintended pregnancy outcomes. The literature is however not extensive and clearly suggests not only a lack of knowledge and focus in this area but also a need thereof.

Trends relating to the prevalence of unintended pregnancy are centrally focused on the socioeconomic and demographic characteristics of women. The most common contributing

factors are educational levels, the age of the woman, marital status, number of children a woman may already have and economic status.

Gender-based violence has been highlighted as a universal phenomenon which is also experienced in Zimbabwe.

Literature has also indicated studies which have addressed the issue of gender-based violence and its relation to unintended pregnancy. The studies have indicated an interest in this field but nothing has or can be conclusively said about this relationship.

With regard to the theoretical framework, one can clearly say that Adetunji's framework is a good reflection of the relationship that confounding factors have on the outcome of pregnancy; whether it is desired, unwanted and/or mistimed. This framework helps to set the foundation into understanding the prevailing occurrence of unintended pregnancy in the world with particularly interest to Sub-Saharan Africa. One notion that Adetunji's framework has not considered is the effect that gender-based violence may have on the intent of the pregnancy.

The above literature and the conceptual framework as described by Adetunji form the basis for undertaking this study. The main contribution of this study will be the inclusion of gender-based violence as in important variable that may affect unintended pregnancy. The findings would also allow for further research in this subject.

CHAPTER 3: METHODOLOGY

3.1. Introduction:

This chapter discusses the methodology of the study with reference to the data source and study population. The key variables and important terms are outlined, defined and discussed.

3.2. Study design:

This study is a secondary data analysis of the 2005/2006 Zimbabwe Demographic and Health Survey (ZDHS) dataset. All women aged 15-49 years who were either permanent residents of selected households or visitors in the household the night before enumeration were described as eligible for the interview. A sub-sample of one eligible woman in each household was randomly selected and asked additional questions about domestic violence.

3.2.1. The 2005/2006 ZDHS:

The ZDHS has been chosen as it is representative of the country as a whole. It is one of a series of surveys undertaken by the Central Statistics Office (CSO) as a part of the Zimbabwe National Household Survey Capability Programme (ZNHSCP) and also forms an important part of the worldwide measure DHS Program. Zimbabwe is stratified by its 10 Provinces; namely, Manicaland, Mashonaland Central, Mashonaland East, Mashonaland West, Matabeleland North, Matabeleland South, Midlands, Masivingo, Harare and Bulawayo. The Zimbabwe Master Sample (ZMS02) of the 2002 was used for this survey. It is based on the sample size determined for the 2002 Zimbabwe Population Census. Each of the provinces (with the exception of Bulawayo and Harare) was divided into four strata according to how the land is used; i.e.: commercial, large-scale commercial farming, urban and semi-urban areas and residential areas. Harare and Bulawayo only form urban stratum due to their structure. A total of 34 strata were accounted for. There was an estimated total of 1 200

enumeration areas calculated according to the probability proportional to size (PPS) method. A systematic selection of enumeration areas was utilised for each of the 34 stratum and in total 10 800 households were selected.

The 2005/2006 ZDHS() represents the first gender-based violence survey done in Zimbabwe. Domestic violence is recognized as a worldwide human rights violation and it was thus deemed important to include it in the survey as much research is required in this area and also expresses Zimbabwe's acknowledgement of the economic, human right and health issues presented by gender-based violence. The 2005/2006 ZDHS was administered to one suitable woman randomly selected in every household. There were 6,293 women aged 15 to 49 years who were selected to be interviewed for this survey. This number includes all women selected even if they formed part of the refusals or incomplete questionnaires.

3.2.2 Questionnaire Design:

The ZDHS was composed of three kinds of questionnaires; namely a household, a woman's and a man's questionnaire. These were all created to assess the health issues of the population and capture the demographics and to inform on any special issues. All the questionnaires were translated into three languages, namely: Shona, Ndebele and English to accommodate the population.

For the purposes of this study, information gathered will be derived from the women's questionnaire. The women had to be within the 15-49 years old age group in order to become a possible candidate for the questionnaire. This questionnaire allowed for the assessing of socioeconomic, demographic and gender-based violence characteristics of the respondents and thus it was the preferred questionnaire for this particular study.

3.2.3 Training and Fieldwork

Training took place over three days and CSO Staff, non-governmental organisations, government ministries and donor organisations took part in it. The pilot of the survey took place in Gweru and surrounding areas. Approximately 200 households were included and 16 qualified enumerators administered the questionnaire. Following the pilot there was a debriefing session relating to the modification and incorporation of the any suggestions and also feedback on the pilot.

Interview training took place in mid-2005 and lasted for a period of four (4) weeks. There were 130 interview trainees who participated in this programme. Most of the fieldworkers were trained nurses and advanced graduates. Data collection took place from August 2005 to February 2006 over a seven-month period.

3.2.4 Data Processing

Questionnaires were returned to the CSO for processing, which took place in two stages. In the first stage, office editing and coding of open-ended questions took place. During the second stage the software package CSPro was used to identify errors and to resolve inconsistencies in the data. Data was then processed in two shifts. This was done by 21 clerks, two (2) data checkers and two (2) data entry supervisors. Re-entry of the data, always referred to as 100% verification, from all the questionnaires was carried out to ensure the quality of the data. This is also used as a check for possible secondary editing errors. Preliminary results were then generated from the imputed raw data. The final data cleaning was concluded in May 2006.

3.2.5 Study Population and sample size:

The population of interest in this study are women who took part in the domestic violence module of the 2005/06 ZDHS. The women considered had to be either married or living

together in a co-habitual relationship with their partners. The gender-based violence to be used within this study includes emotional, physical and sexual abuse the respondents may or may not have been exposed to. A sample of 1,516 women who answered the pregnancy intension and domestic violence module of the questionnaire were included in this study.

3.3 Variables and Variable Definitions:

3.3.1 Variable Definitions:

Table 1 illustrates the socioeconomic, demographic and gender based violence variables used for this study as derived from the 2005/2006 ZDHS data set.

The socioeconomic variables include: “respondent’s age at first birth”, “highest level of education”; “occupation”; “type of residence”; and “number of household members”. Women in the lower categories of these variables are considered to demonstrate low socioeconomic status. The lower categories point to low levels of education, younger ages and also not working status and thus are suggested to illustrate low socioeconomic status. Age at first birth helps identify the younger mothers from the older ones, the age groups are divided into those aged 18 and younger and those older than 18. This was done to identify teenage mothers and adult mothers at first birth. For education, those with no to little education demonstrate a low socioeconomic status. In the case of work status the categories are working and not working. The number of household members has been included to show how far the family resources may be shared across the household. The categories are for households with less than 5 members and those with more than 5 members. These categories were chosen because in the 2007 ZDHS it was found that the average household housed 4.6 members, and thus for this study an estimated 5 was used in the sub-categories assigned. Those households with more than 5 members are those who have a lower socioeconomic status.

The demographic, social and geographic variables are: “age of respondent”; “marital status”; “religion”; and “region”. These variables are used as explanatory variables surrounding the domestic relationships and structure of the respondents used in this study. The “age” variable is used to convey the structure and composition of the respondents used within this study. “Marital status” is used to illustrate the type of relationship the respondent may be in domestically. The DHS codes this variable as “married” and “cohabiting” for ever-married women and this variable will be preserved in this way for purposes of this study. The “region” variable was recoded from the 10 Provinces of Zimbabwe into 7 provinces for easier interpretation. These seven recodes are: Manicaland; Mashonaland; Matebeleland; Midlands; Masivingo; Harare and Bulawayo. For the religion variable, the categories have been recoded to include “Roman Catholic” and “Other”; where ‘other’ includes those who said they have no religion, Muslims, traditional and other faith beliefs. Roman Catholic has been defined as the response category for the purpose of this study because it was found to be the leading religion and Christian Denomination practised in Zimbabwe according to the International Religious Freedom Report (2005).

The gender-based violence variables used in this study have also been defined in Table 1. For this group there are three types of abuse expressed: i.e.; physical, emotional and sexual. The physical variable was derived from the following six (6) variables from the original data set : “spouse ever pushed, shook or threw something”, “spouse ever slapped”, “spouse ever punched”, “spouse ever attempted to strangle or burn”, “spouse ever attacked with knife, gun or other weapon”. The emotional violence variable comprised three (3) variables from the original data set namely; “spouse ever threatened with harm”, “spouse ever humiliated” and “spouse ever insulted or made to feel bad”. Sexual violence consisted of three (3) variables from the original data set as well; namely, “ever sexual violence”, “ever physically forced sex”, and lastly ”ever forced to perform sexual acts”. Respondents were asked if they had

experienced various forms of physical violence. To which they responded yes or no. This variable is thus a binary variable of the responses. If a respondent replied yes to at least one of the forms of violence, she was coded as ‘yes’. Respondents’ answers that were “No” and “Not at all” were coded as “No” for purposes of this study. “Sometimes” and “Often” answers were coded as “Yes”. These were then merged individually into the respective variable: physical, emotional and sexual.

Lastly, for purposes of the multivariate analysis, these three variables were merged into one. This was done using the same method as above; if the respondent responded ”yes” to any form of abuse then the “gender-based violence (gbv) variable will have a “yes” category. Where the response was “no” to any form of violence then it was coded as “no” for the gbv variable.

Table 1: Variables used and their categories

Variables	Categories
Socioeconomic Respondent's age at first birth	 ≤ 18 years old > 18 years old
Highest level of education	No education Primary Secondary and Higher
Work status	Not working Working
Type of residence	Urban Rural
Number of household members	<5 ≥5
Demographic Age of respondent	 < 25 years old ≥ 25 years old
Social Marital status	 Married Living together
Religion	Roman Catholic Other
Geographic Region	 Manicaland Mashonaland Matebeleland Midlands Masvingo Harare Bulawayo
Gender-Based Violence Physical	 Spouse ever pushed, shook or threw something Spouse ever slapped Spouse ever punched Spouse ever attempt to strangle or burn Spouse ever attacked with a knife, gun or other weapon Ever physical violence
Emotional	Spouse ever threatened with harm Spouse ever humiliated Spouse ever insult or made to feel bad
Sexual	Ever sexual violence Ever physically forced sex Ever forced to perform sexual acts
Gender-Based Violence	Physical violence Emotional violence Sexual violence

3.3.2 Dependent variable

The outcome variable identified is whether the respondent's last pregnancy was intended or not. The base of this variable are women who had given birth in the last three or five years preceding enumeration. The dependent variable assessed within this study is the "unintended pregnancy" variable as derived from the 2005/2006 ZDHS data set (See Table 2). In the original data set the variable's categories are: 1-then; 2-later; and 3-not at al.

These were recoded using Stata 10 to only have two categories: No and Yes. For purposes of this study women were categorised as having an unintended pregnancy if they reported their last pregnancy as "later" or "not at all"; this was coded as "no". Intended pregnancy responses were classified "yes" when a respondent answered "then" in the original question.

Table 2: Dependant Variables and their categories

Variable	Catergory
Pregnancy Intended	No Yes

3.4. Hypotheses:

The hypotheses which were tested in this study were:

Ho: There is no relationship between gender-based violence and unintended pregnancy among women in Zimbabwe.

HA: There is a relationship between gender-based violence and unintended pregnancy among women in Zimbabwe.

3.5 Ethical Considerations:

This study is a secondary analysis of pre-existing data. There is therefore no risk of disclosure of any personal information about the individual respondents, and in this regard anonymity is guaranteed.

3.6 Data Management:

The 2005/2006 ZDHS data set was downloaded from the official DHS website. The data set was presented in Stata format. Variables considered pertinent for this study were selected from the original data set. These variables were then restricted to female respondents aged 15- 49 years.

A total of 1,516 respondents aged 15- 49 years took part in the Domestic Violence Module and provided complete answers to questions relating to abuse and pregnancy intent. It was assured that observations for the variables pertaining to this study were 95% absolute. The data set was analysed in Stata 10.

3.7 Data Analysis:

Variables used for the data analysis of this study were categorised and coded as explained in section 3.3. There were three levels of analysis: univariate, bivariate and multivariate.

Firstly, univariate analysis was conducted to summarise the individual characteristics (i.e.: socioeconomic status, demographic and GBV); discuss distribution of emotional, physical, and sexual violence against women by their demographic characteristics; and to analyze distributions and differentials in gender-based violence. This is shown through the use of frequency tables.

Secondly, bivariate analysis was carried out. This is used to test if associations exist between the independent and the dependent variable. In doing this analysis variables were coded as ‘0’ (i.e.: an intended pregnancy) to indicate a negative outcome and ‘1’ to represent the outcome of interest of this study (unintended pregnancy). Logistic regression is used for this analysis.

Lastly, multivariate analysis was used to examine selected risk factors for unintended pregnancies with gender-based violence as the main explanatory variable. Logistic regression

was also used here to examine the association between gender-based violence and pregnancy intensions of women because the outcome variable is binary (yes or no). Logistic regression was used for each of the independent variables that are significant by the dependent variable. The results are presented as adjusted odds ratios (OR) with 95% confidence intervals (CI) and *p*-values. The basic logistic regression equation is:

$$L_i = \alpha + \beta_1 X_{1i} + \beta_2 X_{2i} + ... + \beta_k X_{ki}$$

Where: L_i = dependent variables

α = constant

β_i = regression coefficients

X_i = independent variables

3.8: Limitations of the study

Underreporting:

Underreporting is an ever present concern in any research which involves violence against women (Jewkes, 2000). Women consider it as a shame or fear further forms of abuse if they disclose and thus in many instances it occurs without being acknowledged. Similarly, in the case of Zimbabwe, certain acts are not considered as abuse and are rather considered as norms and thus abuse is not reported. For this reason, women who do not report their abuse could be a possible limitation to this and any other study regarding this type of violence. Women may not report their abuses for a number of reasons. Firstly, there is the fear that their partners would find out and react by continuing the abuse more severely. Secondly, there is the threat of stigma attached to abuse and lastly, there is the embarrassment of acknowledging that they are being abused. Ways in which to increase reporting relating to gender-based violence are discussed in Jewkes (2000) and others and these methods include

pre-testing of questionnaires and piloting; to avoid terms with in the questionnaire which may be interpreted as having negative connotations, such as “rape” and/or “abuse”; questions should be broad and not centrally focused on the respondent’s immediate partner but refer to a range of possible executors; and to ensure that privacy and confidentiality is ensured to name but a few.

Unintended pregnancy can also be defined within the arena of under reporting. For example, a woman may change her mind as to how she may feel about the pregnancy or being pregnant during the term and/or after the birth. In another instance, a woman may not be willing to admit that a pregnancy was in fact unintended in fear of judgment and or stigmatization. Due to this reasons, one can also suggest that the labeling of a pregnancy as unintended may in it be a limit upon this study.

Recall Bias:

Due to the nature of the study, recall bias is an obvious limitation to the study. This is a limitation firstly, because a woman who initially considered her pregnancy as unwanted, mistimed and/or unplanned may have changed her mind upon the arrival/birth of the child. Secondly, the woman in question may not recall all her pregnancies (if more than two) and thus an accurate and complete depiction of unintended pregnancy data will not be collected.

In regard to violence, if the recall period used is a lengthy one, a woman may not recall if she had suffered a form of abuse if it is not a frequent occurrence in her home. Similarly, the respondent may only consider really severe definitions of gender-based violence and thus not provide truthful depictions of situations. An example could be if in a heated argument the respondent’s partner may push or even use verbal abuse, the respondent may not regard these as abusive and thus will not recall these as such to report them accurately.

Other:

Another suggestion would be to include information about smoking, drug and alcohol use of the respondent and possibly the abuser as articulated in the Peru study (Cripe, et. al, 1999). This is suggested as an important link to violence and could thus enhance the findings and also the possible experience of violence suffered (Cripe, et. al., 1999). However, this information was not collected.

Chapter 4: Results

4.1 Introduction:

This chapter will illustrate the various findings for each stage of analyses. Firstly, the univariate findings will be described and assessed across all variables. Secondly, the bivariate findings will be described. Lastly, the multivariate analyses will be described and discussed based on significant variables from the bivariate analyses.

4.2 Characteristics of Respondents:

The analysis method used in this section is frequency distributions to assess the 2005/06 ZDHS data for female respondents who answered the pregnancy intension and domestic violence module of the questionnaire. The results are presented in Table 3 based on the socioeconomic, demographic, geographic and gender-based violence features.

Table 3: Percentage distribution of women who reported physical, sexual and emotional violence, ZDHS 2005-2006

Type of Abuse	% abused
Physical Violence	
Less severe violence	33.31
Severe violence	9.37
Push, shook or threw something	11.02
Slapped	25.00
Punched	11.48
Strangled or burned	7.52
Threatened with a knife, gun or other weapon	1.85
Total*	**33.25**
Emotional Violence	
Humiliated	10.62
Insulted or made to feel bad	27.70
Threatened with harm	10.09
Total*	**33.71**
Sexual Violence	
Physically forced to have sex	11.68
Forced to perform sexual acts	11.48
Total*	**15.37**

*The total for each category of violence will be used for bivariate and multivariate analyses.

The above table (Table 3) shows the percentages of women who experienced different types of violence. It can be seen that emotional and physical violence were the most common types of violence, experienced by about a third of all women for each type. About 15% of women had experienced sexual violence. For those who suffered physical violence, the most common type was “less severe violence” (33.31%), followed by being slapped (25.0%).

With reference to emotional violence, it was found that insulting and made to feel bad (27.70%) was the most frequent form of emotional abuse experienced by women in Zimbabwe. Sexual violence was also prevalent in Zimbabwe and it was found that 11.68% of the women said they were physically forced to have sex and 11,48% said they were forced to perform sexual acts.

Table 4: Distribution of women by background characteristics of women respondents who have participated in the Gender-Based Violence module of the 2005/06 ZDHS

Characteristic	Frequency	Percentage
Socioeconomic		
Age at first birth*		
≤ 18 years old	948	62.53
> 18 years old	568	37.47
Total	1 516	100.00
Highest level of education		
No education	46	3.03
Primary	625	41.23
Secondary+	845	55.74
Total	1 516	100.00
Work Status		
Not working	823	54.29
Working	693	45.71
Total	1 516	100.00
Type of residence		
Urban	383	25.26
Rural	1 133	74.74
Total	1 516	100,00
Number of household members		
<5	987	65.11
≥5	529	34.89
Total	1 516	100.00
Demographic		
Age		

< 29 years old	921	60.75
≥ 29 years old	1 004	39.25
Total	1 516	100.00
Mean = 29.03		
Marital status		
Married	1 495	98.61
Living together	21	1.39
Total	1 516	100.00
Region		
Manicaland	174	11.48
Mashonaland	490	32.32
Matebeleland	184	12.14
Midlands	244	16.09
Masvingo	184	12.14
Harare	162	10.69
Bulawayo	78	5.15
Total	1 516	100,00
Religion*		
Roman Catholic	139	9.17
Other	1 377	90.83
Total	1 516	100.00
Gender-Based Violence		
Physical Violence		
No	1 012	68.15
Yes	504	31.85
Total	1 516	100.00
Emotional Violence		
No	1 005	67.26
Yes	511	32.74
Total	1 516	100.00
Sexual violence		
No	1 283	85.79
Yes	233	14,21
Total	1 516	100.00
Pregnancy Intent (the outcome variable)		
Unintended	465	30.67
Intended	1 051	69.33
Total	1 516	100.00

*Some respondents did not provide answers

Table 4 above represents the characteristics of respondents used for purposes of this study. It was found that 60.75% of respondents were 29 years and younger. The mean age of women was 29 years and was thus used as a reference age. About 62.53% had their first child at age 18 or younger.

As much as 65.11% of women were living in households consisting of less than five household members. In contrast, only, 34.89% reported living in households with five of more members. This finding substantiates the 2007 Zimbabwe Demographic and Health Survey report which stated that the average household size in Zimbabwe constituted 5 household members.

A great proportion of respondents in this study reported to practise other religions (90.83%) as compared to those practising Catholicism (9.17%). Roman Catholic was used as the response category in this study because it is reported as being the most prominent religion practised in Zimbabwe (International Religious Freedom Report, 2005).

Socioeconomic variables suggest that the respondents of this study were mostly from rural areas (74.74%); were not working (54.29%) and had secondary and higher education (55.74%).

For regional distribution, it is observed that Mashonaland region indicates had a large percentage of the study population (32.32%). This region is a combination of Mashonaland East, Mashonaland West and Mashonaland Central. Bulawayo displayed the least amount of respondents residing there (5.15%).

The pregnancy intent variable indicates that 30.67% of pregnancies were unintended. This shows that unintended pregnancy is an occurrence in Zimbabwe.

4.2 Bivariate Analysis:

Bivariate analysis was carried out to investigate if a respondent's socioeconomic status, demographic and gender-based violence; namely physical, emotional and sexual may be related to unintended pregnancy. Bivariate logistic regression was used to show individual relationships between the respondent's age at first birth, highest level of education,

occupation, type of residence, number of household members, age, marital status, region, religion, and the experience of physical, emotional and sexual violence. Using unadjusted odds ratios, the likelihood of unintended pregnancy occurring was assessed.

Table 5: Unadjusted odds ratios of unintended pregnancy classified by background characteristic of women

Characteristic	Unintended pregnancy	P-value
Socioeconomic		
Respondent's age at first birth		
≤ 18 years old (RC)	**1.00**	
> 18 years old**	0.68	0.001
Highest level of education		
No education (RC)	**1.00**	
Primary	0.76	0.72
Secondary+	1.06	0.97
Occupation		
Not working (RC)	**1.00**	
Working*	0.78	0.029
Type of residence		
Urban (RC)	**1.00**	
Rural	1.23	0.11
Number of household members		
<5 (RC)	**1.00**	
≥5**	1.41	0.003
Demographic		
Age of respondent		
< 29 years old (RC)	**1.00**	
≥ 29 years old	1.02	0.864
Marital Status		
Married (RC)	**1.00**	
Living together	0.9	0.834
Region		
Manicaland (RC)	**1.00**	
Mashonaland	1.70	0.06
Matebeleland	1.90	0.07
Midlands**	2.13	0.01
Masvingo*	2.37	0.04
Harare	4.27	0.77
Bulawayo	6.40	0.32
Religion		
Roman Catholic (RC)	**1.00**	
Other	1.35	0.142

Gender-Based Violence		
Physical		
No (RC)	**1.00**	
Yes**	1.42	0.003
Emotional		
No (RC)	**1.00**	
Yes	1.06	0.616
Sexual		
No (RC)	**1.00**	
Yes**	1.49	0.007

RC is the Response Category; *p<0.05; **p<0.01; ***p<0.001

Table 5 illustrates the odds ratios of abused women having an unintended pregnancy. Looking at the socioeconomic variables it was found that women who had their first birth when they were 18 years and older displayed a 32% less chance of reporting a pregnancy as unintended.

With regard to education it was found that respondents with secondary and higher education were more likely to have an unintended pregnancy (1.06) compared to those with no education as there was an increased associated odds ratio. Those respondents with primary education had a reduced odds ratio of 0.76. This means that women with secondary or more education were more inclined to experience an unintended pregnancy. Women with primary education were 24% less likely to have an unintended pregnancy. However, the differences by education were not statistically significant

Work status was found to have a reduced odds ratio of 0.78 which indicates that working women were less likely to be vulnerable to an unintended pregnancy compared to non-working women.

Women who resided in rural areas were found to display higher odds ratios of having an unintended pregnancy estimated at 1.23. This is however not found to be statistically significant.

The numbers of household members residing in a specific house show those women who resided in households with more than five (5) members had an increased odds ratio of 1.41 of having an unintended pregnancy. This also proved statistically significant and thus is positively associated with unintended pregnancy.

For the demographic variables it was found that for woman aged older than 29 had odds ratio of 1.02, which suggests an increased association to unintended pregnancy. However, the difference was not statistically significant. Similarly for marital status it was also found that cohabitating women had reduced odds ratio (0.9) associated to unintended pregnancy. Both these indicate that women older than 29 years old and women who are in a cohabiting arrangement are more likelihood to have an unintended pregnancy than younger women and married women.

With regard to region, the odds ratios indicate that unintended pregnancy was likely to occur in some regions as compared to others. All regions exhibit large increased odds ratios ranging from 1.70 to 6.40, as compared to Manicaland.

For religion, women practising other religions (i.e.: not Catholicism) were likely to be associated with unintended pregnancies. Other religions display an increased odds ratio of 1.34. Catholicism is said to be strict on cohabitation and this could be a possible reason for the higher odds in other religions.

Unintended pregnancy has increased odds ratio to the three forms of gender-based violence, although the difference was not significant for emotional abuse. Physical and sexual violence

proved to be significant and displayed odds of 1.42 and 1.49 respectively. Emotional violence had an odds ratio of 1.06.

4.3 Multivariate Analysis:

This section will focus on the strengths of associations between the respondent's characteristics and domestic violence with that of unintended pregnancy. All variables previously assessed will be included for further analysis.

4.4 Multivariate analysis, displaying the odds ratios of variable groups by socioeconomic, demographic and domestic violence characteristics:

Table 6 (below) illustrates multivariate analysis. For purposes of this study, the various characteristics are grouped together into three different groups; namely: socioeconomic, demographic and domestic violence. The findings for each group was an independent analysis but is represented in one model (Table 6).

The socioeconomic cluster is comprised of five variables. These are age at first birth, highest level of education, work status, type of residence and number of household members. The demographic cluster has three variables; namely, age, marital status and region. The gender-based violence faction was made up of three variables; physical, emotional and sexual violence.

Table 6: Multivariate logistic regressions assessing the association between socioeconomic, demographic and gender-based violence groups variable and unintended pregnancy

Characteristic	Unintended pregnancy	P-value
Socioeconomic Variables		
Respondent's age at first birth		
≤ 18 years old (RC)	**1.00**	
> 18 years old*	0.74	0.012
Highest level of education		
No education (RC)	**1.00**	
Primary	0.87	0.673
Secondary+	0.71	0.280
Occupation		
Not working (RC)	**1.00**	
Working	0.81	0.062
Type of residence		
Urban (RC)	**1.00**	
Rural	1.00	0.989
Number of household members		
<5 (RC)	**1.00**	
≥5*	1.33	0.016
Demographic Variables		
Age of respondent		
< 29 years old (RC)	**1.00**	
≥ 29 years old	0.99	0.960
Marital Status		
Married (RC)	**1.00**	
Living together	1.06	0.905
Region		
Manicaland (RC)	**1.00**	
Mashonaland	0.99	0.937
Matebeleland	1.30	0.239
Midlands*	0.63	0.038
Masvingo*	0.62	0.045
Harare	0.88	0.592
Bulawayo*	0.5	0.034
Religion		
Roman Catholic (RC)	**1.00**	
Other	1.29	0.215
Gender-Based Violence Variable		
Physical		
No (RC)	**1.00**	
Yes*	1.38	0.012
Emotional		
No (RC)	**1.00**	
Yes	0.88	0.319
Sexual		
No (RC)	**1.00**	
Yes*	1.38	0.041

RC= Reference Category; *p<0.05; **p<0.01; ***p<0.001

The results indicate that the following variables were significantly associated with unintended pregnancy (at the level of 5% or less): age at first birth, number of household members, region, physical violence and sexual violence. Those that were not significant were level of education, occupation, type of residence, age, marital status, religion and emotional violence and have therefore been excluded from interpretation of the results.

For the socioeconomic variables, it can be seen that for those women who had their first birth at ages older than 18 years old had a significant odds ratio of 0.73. This suggests that women who had their first birth when they were older than 18 years had a 27% less chance of having an unintended pregnancy than those who had their first birth when they were 18 year or younger. The number of household member variable shows that women who lived in a household with five or more members had increased odds ratio (1.33) of unintended pregnancy. This indicates that they were 33% more likely to have unintended pregnancies than those who lived in household with less than five members.

Looking at the regional variable it is apparent that women from Midlands, Masvingo and Bulawayo had lower risk of having an unintended pregnancy than those from Manicaland as their odds ratios were significantly different from 1.00. This means that they were less likely to have an unintended pregnancy as compared to those from Manicaland by between 37% (Midlands) and 50% (Bulawayo). Those from Bulawayo had the lowest risk of having unintended pregnancy compared to those from Midlands.

For the gender-based violence variables it was found that over all, increased odds ratios exist in regard to unintended pregnancy. For physical and sexual the outcome was found to be significant and with an increased odds ratio; 1.37 and 1.38 respectively. Emotional violence had a lower odds ratio in comparison to the other two measuring at 0.88. This means that for physical and sexual a positive relation can be observed to unintended pregnancy. If a woman

only reports emotional violence though, then she is 12% less likely to report her pregnancy as unintended.

4.5 Multivariate analysis of combined variables of socioeconomic, demographic and gender-based violence characteristics:

Table 7 represents a combined model of all the selected characteristics, namely: socioeconomic, demographic and gender-based violence and unintended pregnancy. The unintended pregnancy variable is discussed in relation to each of the characteristics. Table 7 thus displays all the findings in one combined model.

For this model the gender-based violence variable is used. This composite variable has been recoded in as described in chapter 3. As observed in Table 5, only the following variables remained significant with the combined variable of gender-based violence: age at first birth, number of household members and combined gender-based violence variable.

Table 7: Multivariate logistic regressions examining the association between socioeconomic, demographic and selected gender-based violence variables and unintended pregnancy

Characteristic	Unintended pregnancy	P-value
Socioeconomic Variables		
Respondent's age at first birth		
≤ 18 years old (RC)	**1.00**	
> 18 years old*	0.75*	0.024
Highest level of education		
No education (RC)	**1.00**	
Primary (RC)	0.97	0.930
Secondary+	0.82	0.543
Occupation		
Not working (RC)	**1.00**	
Working	0.85	0.179
Type of residence		
Urban (RC)	**1.00**	
Rural	0.98	0.931
Number of household members		
<5 (RC)	**1.00**	
≥5*	1.36*	0.016
Demographic Variables		
Age of respondent		
< 29 years old (RC)	**1.00**	
>29 years old	0.97	0.834
Marital Status		
Married (RC)	**1.00**	
Living together	1.09	0.861
Region		
Manicaland (RC)	**1.00**	
Mashonaland	0.98	0.909
Matebeleland	1.22	0.379
Midlands	0.66	0.065
Masvingo	0.63	0.056
Harare	1.05	0.868
Bulawayo	0.62	0.203
Religion		
Roman Catholic (RC)	**1.00**	
Other	1.24	0.296
Combined Selected Gender-Based Violence variable		
GBV		
No (RC)	**1.00**	
Yes*	1.53**	0.005

RC= Reference Category; *p<0.05; **p<0.01; ***p<0.001

Table 7 demonstrates the combined analysis of all variables; i.e.: socioeconomic, demographic and gender-based violence and the characteristics of the women within this study and their pregnancy outcome. In this unit of the analysis stage, the unintended pregnancy outcome will be examined with regard to each characteristic of the respondent. This is different from the previous units of assessment as this is done in a combined analysis as opposed to the previous ones which were done in a step by step model to draw out associations per category.

This model firstly demonstrates that respondents who had their first child when they were older than 18 years of age displayed significantly decreased odds of having an unintended pregnancy (0.75). For women who lived in households with more than five (5) members it was however found to be significant ($p>0.05$) with an increased odds ratio of 1.36. This suggests that women who lived in households with five (5) or more members were more inclined to have unintended pregnancies than those who lived in households with less than five children.

Lastly, the model demonstrates that for the gender-based violence variable the respondents have highly significant increased odds. For physical and sexual violence the variables used express increased odds with regard to an outcome resulting in an unintended pregnancy. The combined gender-based variable indicates an increased odds ratio of 1.53. This finding suggests that there is an increased association between unintended pregnancy and gender-based violence.

Table 8: Odds ratios from multivariate logistic regression and bivariate logistics regressions in association differentials between gender-based variables and unintended pregnancy

Characteristic	**Unintended Pregnancy**	
Gender-based Violence:	**Bivariate OR**	**Multivariate OR**
Physical Violence	1.42**	1.36*
Emotional Violence	1.06	0.92
Sexual Violence	1.49**	1.41*
Gender-based Violence (combined)	1.49**	1.53**

*p<0.05; **p<0.01; ***p<0.001

Table 8 is a comparison between odds ratios from the bivariate and multivariate logistic regression analysis completed. The multivariate odds ratios displayed in this table are from the independent model as displayed in Tables 4 and 5.

This table illustrates similar findings in both models. It can be seen that sexual violence displays a higher odds ratio relative to that of emotional and physical violence for both bivariate and multivariate analysis. Physical and sexual violence are both found to be significant and highly associated with unintended pregnancy. The overall gender-based variable proved to be highly significant for both the bivariate and multivariate analyses; 1.49 and 1.53 respectively. This ultimately points to the fact that gender-based violence is associated with unintended pregnancy.

4.6 Summary:

The univariate analyse illustrated the prevalence of GBV in Zimbabwe. The most common form of violence experience by respondents was physical and more specifically the "less severe" kind. It was also found that the most common form of physical violence experienced was being slapped as expressed by 25.0% of the respondents. In the case of emotional violence, it was also found to be a common form of abuse experienced by women. The most common type of emotional violence experienced is the experience of being insulted or made to feel bad (27.70%). A percentage of 15.37% of the respondents reported having experienced sexual violence. With regard to pregnancy intent, it was found that 30.67% of women reported an unintended pregnancy. These findings illustrate and confirm the prevalence and occurrence of gender-based violence and unintended pregnancy in Zimbabwe.

An association between gender-based violence and unintended pregnancy was found to exist. This was demonstrated in both the bivariate and multivariate analyses. Sexual violence was found to yield a greater risk (1.49) than physical (1.42) and emotional (1.06) violence to unintended pregnancy for the bivariate analyses. With regard to multivariate analyses, sexual, physical and emotional violence expressed odds ratios of 1.41, 1.36 and 0.92 respectively. Overall, it was found that gender-based violence displayed significant increased odds of 1.53. This therefore indicates that gender-based violence in Zimbabwe is highly associated with unintended pregnancy.

Chapter 5: Discussion, Conclusion and Recommendations

5.1 Discussion:

This study sought to identify a relationship between gender-based violence and unintended pregnancy. It was found that high rates of gender-based violence are in fact an occurrence many women are faced with in Zimbabwe.

Studies carried out in other regions in Sub-Saharan Africa have identified a high prevalence of domestic violence in the region and the findings presented in this research indicate the presence of gender- based violence in Zimbabwe. This signifies a prevalence of gender-based violence within Zimbabwe and thus illustrates the need for more study in the area of gender-based violence for Zimbabwe. Women across all regions were observed as having experienced some form of abuse; 33.25% physical, 33.71% emotional and 15.37% sexual. Further assessment shows that less severe violence (33.31%) and being slapped (25.00%) were the most common reported forms of physical abuse as reported by respondents. For emotional violence, the most common was being insulted or made to feel bad with a percentage of 27.70. About 11.68% women reported that they had experienced some form of sexual violence, and a further 11.48% had reported they were victims of forced sexual acts.

A percent of 30.67 of unintended pregnancy was reported by women who have had a pregnancy that resulted in a live birth in the last three to five years preceding the survey. These percentages substantiate what has been reported by the Population Reference Bureau that Zimbabwe had an estimated 20% of mistimed pregnancies and 13% which were unwanted (PBR, 2008). In this study, the umbrella definition was used to define unintended pregnancy which included mistimed, unwanted/ unplanned and unwanted pregnancy. It must also be stressed that other studies have indicated that information concerning unintended

pregnancy is not always accurate as women may not be willing to admit that a pregnancy resulting in a live birth may have be unplanned or unintended (Ismayilova, 2010).

As expressed in chapter 2 of this study literature has identified various demographic and socioeconomic variables as confounding factors which contribute to the prevalence of unintended pregnancy. Studies such as those conducted in Ecuador (Eggeleston, et. al., 1999), Tanzania (McClosekey, et. al., 2005) and India (Stephenson, et. al., 2008) have identified variables such as age, marital status, educational level and birth spacing as relevant variables. This study was interested in finding a possible associative relationship which may exist between gender-based violence and unintended pregnancy. Odds ratios were used to determine possible associations as they can substantiate the likelihood of a relationship between the variables and also explain any differences which may result due to chance between the variables discussed.

Findings in the preliminary 2007 ZDHS report which showed women from all kinds of backgrounds experience domestic violence. Odds ratios in the results indicate findings which are similar with findings in the ZDHS with regard to domestic violence. As illustrated in chapter 2, it can be noted that women in rural areas tend to exhibit higher rates of domestic violence than those in urban areas. This is similar for the high account of unintended pregnancies found in the rural areas as compared to the urban areas (ZDHS, 2007).

A relationship between gender-based violence and unintended pregnancy has been identified with particular attention to the multivariate analysis findings. An increased odds of 1.53 was found and this was statistically significant at 1% level. This finding is similar to that found in the Columbian study by Pallito and others in which an association between unintended pregnancy and gender-based violence was observed (Pallito, et. al., 2004).

With regard to the socioeconomic odds ratios, these were found to be low and thus not displaying any significant association with unintended pregnancy. Working women were also more likely to have an unintended pregnancy than non-working women, and this is consistent with the literature about determinants of fertility (Johnson, 2011). The odds ratios for both bivariate and multivariate analysis estimated at about 0.8 which suggests that working women were 20% less likely to have an unintended pregnancy than non-working women.

For the demographic characteristics, it was found that women practising other forms of religion are most likely to be at risk of unintended pregnancy with an increased odds ratio of 1.30 in the multivariate analysis, as compared to those belonging to Roman Catholic. For the association of age and unintended pregnancy, it was found that women older than 29 years were more likely to have an unintended pregnancy than their younger counter parts. This is found to be a reflection of the theories of Adetunji (1998) as expressed in Chapter 2 in which it is described that older women do not desire to have more children. Adetunji argued that studies have shown that age is viewed as a confounding factor in understanding the prevalence of unintended pregnancy. The study suggests that older women; in relation to their economic situation, marital status and household number are less inclined to have more children than younger women (Adetunji, 1998). Regionally it was found that unintended pregnancy is widespread in Zimbabwe and not necessarily confined to one specific area. This is found to be consistent with the 2007 ZDHS findings which express that domestic violence occurs across all socioeconomic and cultural backgrounds (ZDHS, 2007).

Pallito et. al (2004) had found that an association was observed between unintended pregnancy and gender-based violence in Columbia (Pallito, et. al., 2004). The findings in this study have also illustrated an association between Gender-based violence and unintended pregnancy. As expressed in the Columbian and the Zimbabwean study conducted by Hof in 1999, sexual violence was more commonly associated with unintended pregnancy than

physical and emotional violence. In this study it was noted that an abused woman, whether physical, emotional or sexual; had an odds of 1.53 for unintended pregnancy, compared to those who did not experience any of these types of violence.

5.2 Conclusion:

This study has demonstrated that both gender-based violence and unintended pregnancy are prevalent in Zimbabwe. This study concludes there is an association between unintended pregnancy and gender-based violence, even after controlling for a range of socio-economic, demographic and geographical characteristics of women included in the study. Furthermore, it was noted that the risk of an unintended pregnancy varied according to the type of violence experienced.

5.3 Recommendations:

This study illustrates that more attention needs to be given to the consequences gender-based violence imposes upon reproductive health in women, which necessitates that policies relating to reproductive health need to be reviewed.. Programmes aimed at educating women about their reproductive health need to include a slot which relates to the issue of gender-based violence. In discussing these issues it would be necessary to explain the consequences and perhaps the effects it may present for the women. The inclusion of gender-based violence in reproductive health programmes could help communities to become more aware of women who may be victims and also give them a platform to address their personal problems.

The findings suggest that gender-based violence should be included in literature as contributing to the prevalence of unintended pregnancy. In identifying it as a factor, this could enable more policy and legislature to be drafted which could allow for the development of new programs to cater for women experiencing gender-based violence. In the Pallito

(2004) and Cripe et. al. (1999) studies, it is suggested that health programs should include treatment and screening for domestic violence to help women cope. One can also suggest that government take more responsibility in addressing the prevailing issue of domestic violence.

This study did not include ethnicity as it had not been available from the original data. A recommendation for further analysis could be to generate a study which could include this as a response variable. Including ethnicity as a variable could help explain the societal norms and/or practises which could also inform of the cultural differences and this in turn could help understand the nature of certain societal structures and roles the different sexes hold within their respective cultures. In doing so one could also perhaps account for the lack of reporting and knowledge women may have regarding their reproductive rights and also their right to protection.

Another avenue could be to potentially include an “ever had an abortion” variable. Some of the research indicated that women who have had an abortion are more likely to be second-time offenders. Including this variable when looking at the role gender-based violence may be necessary as it could help explain the desperation of the women not to have the pregnancy carried to term and could also help broaden the understanding of the relationship between gender-based violence and unintended pregnancy. In the Columbian study it was also observed that unintended pregnancy was generally lower because an abortion variable is not included and if it were then the results may be altered and a more accurate depiction of unintended pregnancy may be observed (Pallito: 2004, 165- 166).

With regard to the recall period, more specification is required to the frequency and occurrence of the violence reported. In this study there was no definitive reference period and this could have altered results if it had been included. The abuse which is reported also needs to be captured relating to how often the abuse may occur and also for how long women may

have been experiencing the abuse. This could help enhance the research findings because the severity, exposure to and frequency of the abuse could in fact have a greater effect on the respondent's ability to control her reproductive health and also help explain why a pregnancy may in fact not be desired in regard to gender-based violence.

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Appendix:

Annexure A: Bivariate table of physical Gender-Based violence by unintended pregnancy

```
. logistic pregn_intent physicalv

Logistic regression                                     Number of obs     =      1516
                                                        LR chi2(1)        =      8.91
                                                        Prob > chi2       =    0.0028
Log likelihood = -930.0964                              Pseudo R2         =    0.0048

------------------------------------------------------------------------------
pregn_intent | Odds Ratio   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
    physicalv |   1.417154   .1648183     3.00   0.003     1.128289    1.779974
------------------------------------------------------------------------------
```

Annexure B: Bivariate table of emotional Gender-Based violence by unintended pregnancy

```
. logistic pregn_intent emotionalv

Logistic regression                                     Number of obs     =      1516
                                                        LR chi2(1)        =      0.25
                                                        Prob > chi2       =    0.6160
Log likelihood = -934.42424                             Pseudo R2         =    0.0001

------------------------------------------------------------------------------
pregn_intent | Odds Ratio   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
   emotionalv |   1.060724   .1245361     0.50   0.616     .8426855    1.335178
------------------------------------------------------------------------------
```

Annexure C: Bivariate table of sexual Gender-Based violence by unintended pregnancy

```
. logistic pregn_intent sexualv

Logistic regression                                     Number of obs     =      1516
                                                        LR chi2(1)        =      7.10
                                                        Prob > chi2       =    0.0077
Log likelihood = -931.0005                              Pseudo R2         =    0.0038

------------------------------------------------------------------------------
pregn_intent | Odds Ratio   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
     sexualv |   1.490895   .2208463     2.70   0.007     1.115215    1.993129
------------------------------------------------------------------------------
```

Annexure D: Multivariate table of socioeconomic variables by unintended pregnancy

```
. xi: logistic i.pregn_intent i.firstbirth3 i.edulevel i.wstatus i.residence i.hhmember
i.pregn_intent    _Ipregn_int_0-1     (naturally coded; _Ipregn_int_0 omitted)
i.firstbirth3     _Ifirstbirt_0-1     (naturally coded; _Ifirstbirt_0 omitted)
i.edulevel        _Iedulevel_0-2      (naturally coded; _Iedulevel_0 omitted)
i.wstatus         _Iwstatus_0-1       (naturally coded; _Iwstatus_0 omitted)
i.residence       _Iresidence_1-2     (naturally coded; _Iresidence_1 omitted)
i.hhmembers       _Ihhmembers_0-1     (naturally coded; _Ihhmembers_0 omitted)

Logistic regression                               Number of obs   =      1516
                                                  LR chi2(6)      =     26.35
                                                  Prob > chi2     =    0.0002
Log likelihood = -921.37314                       Pseudo R2       =    0.0141

------------------------------------------------------------------------------
_Ipregn_in~1 | Odds Ratio   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
_Ifirstbir~1 |   .7352462   .0901909    -2.51   0.012     .5781199    .9350777
_Iedulevel_1 |   .8743797    .278374    -0.42   0.673     .4684953    1.631905
_Iedulevel_2 |   .7063892   .2273363    -1.08   0.280     .3759265    1.327349
 _Iwstatus_1 |   .8089085   .0919573    -1.87   0.062     .6473426    1.010799
_Iresidenc~2 |   1.002083   .1450245     0.01   0.989     .7545969    1.330737
_Ihhmember~1 |    1.33111   .1579334     2.41   0.016     1.054923    1.679606
------------------------------------------------------------------------------
```

Annexure E: Multivariate table of demographic variables by Unintended pregnancy

```
. xi: logistic i.pregn_intent i.age2 i.mstatus i.region i.religion
i.pregn_intent    _Ipregn_int_0-1     (naturally coded; _Ipregn_int_0 omitted)
i.age2            _Iage2_1-2          (naturally coded; _Iage2_1 omitted)
i.mstatus         _Imstatus_1-2       (naturally coded; _Imstatus_1 omitted)
i.region          _Iregion_1-7        (naturally coded; _Iregion_1 omitted)
i.religion        _Ireligion_1-2      (naturally coded; _Ireligion_1 omitted)

Logistic regression                               Number of obs   =      1516
                                                  LR chi2(9)      =     24.21
                                                  Prob > chi2     =    0.0040
Log likelihood = -922.44417                       Pseudo R2       =    0.0130

------------------------------------------------------------------------------
_Ipregn_in~1 | Odds Ratio   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
    _Iage2_2 |   .9941575   .1153408    -0.05   0.960     .7919539    1.247988
 _Imstatus_2 |   1.061032   .5260103     0.12   0.905     .4015528    2.803591
  _Iregion_2 |   .9853448   .1839465    -0.08   0.937      .683414    1.420668
  _Iregion_3 |   1.297223   .2865589     1.18   0.239     .8413616    2.000077
  _Iregion_4 |   .6334264   .1391366    -2.08   0.038     .4118355    .9742459
  _Iregion_5 |   .6234226   .1471838    -2.00   0.045     .3924844    .9902449
  _Iregion_6 |   .8822093   .2065052    -0.54   0.592     .5576024    1.395785
  _Iregion_7 |    .502387    .163198    -2.12   0.034     .2657845    .9496141
_Ireligion_2 |   1.291454   .2662179     1.24   0.215     .8622114     1.93439
------------------------------------------------------------------------------
```

Annexure F: Multivariate table of Gender-Based violence variables by unintended pregnancy

```
. xi: logistic i.pregn_intent i.physicalv i.emotionalv i.sexualv
i.pregn_intent    _Ipregn_int_0-1     (naturally coded; _Ipregn_int_0 omitted)
i.physicalv       _Iphysicalv_0-1     (naturally coded; _Iphysicalv_0 omitted)
i.emotionalv      _Iemotional_0-1     (naturally coded; _Iemotional_0 omitted)
i.sexualv         _Isexualv_0-1       (naturally coded; _Isexualv_0 omitted)

Logistic regression                               Number of obs   =      1516
                                                  LR chi2(3)      =     13.39
                                                  Prob > chi2     =    0.0039
Log likelihood = -927.85252                       Pseudo R2       =    0.0072

------------------------------------------------------------------------------
_Ipregn_in~1 | Odds Ratio   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
_Iphysical~1 |   1.37952   .1771386     2.51   0.012     1.072578    1.774301
_Iemotiona~1 |  .8787985   .1138491    -1.00   0.319     .6817348    1.132826
 _Isexualv_1 |   1.38166    .219114     2.04   0.041     1.012538    1.885346
------------------------------------------------------------------------------
```

Annexure G: Multivariate table of combined variables; socioeconomic, demographic and Gender-Based violence

```
. xi: logistic i.pregn_intent i.firstbirth3 i.edulevel i.wstatus i.residence i.hhmembers i.age2
>  i.region i.religion i.gbv
i.pregn_intent    _Ipregn_int_0-1     (naturally coded; _Ipregn_int_0 omitted)
i.firstbirth3     _Ifirstbirt_0-1     (naturally coded; _Ifirstbirt_0 omitted)
i.edulevel        _Iedulevel_0-2      (naturally coded; _Iedulevel_0 omitted)
i.wstatus         _Iwstatus_0-1       (naturally coded; _Iwstatus_0 omitted)
i.residence       _Iresidence_1-2     (naturally coded; _Iresidence_1 omitted)
i.hhmembers       _Ihhmembers_0-1     (naturally coded; _Ihhmembers_0 omitted)
i.age2            _Iage2_1-2          (naturally coded; _Iage2_1 omitted)
i.mstatus         _Imstatus_1-2       (naturally coded; _Imstatus_1 omitted)
i.region          _Iregion_1-7        (naturally coded; _Iregion_1 omitted)
i.religion        _Ireligion_1-2      (naturally coded; _Ireligion_1 omitted)
i.gbv             _Igbv_0-1           (naturally coded; _Igbv_0 omitted)

Logistic regression                               Number of obs   =      1516
                                                  LR chi2(16)     =     51.03
                                                  Prob > chi2     =    0.0000
Log likelihood = -909.03682                       Pseudo R2       =    0.0273

------------------------------------------------------------------------------
_Ipregn_in~1 | Odds Ratio   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
_Ifirstbir~1 |  .7493847   .0957678    -2.26   0.024     .5833448    .9626853
_Iedulevel_1 |  .9720422   .3151394    -0.09   0.930     .5148998    1.835049
_Iedulevel_2 |  .8181709   .2699366    -0.61   0.543     .4285582     1.56199
 _Iwstatus_1 |  .8499356   .1027688    -1.34   0.179     .6706009    1.077229
_Iresidenc~2 |  .9820605   .2058106    -0.09   0.931      .651256    1.480897
_Ihhmember~1 |  1.358233   .1721028     2.42   0.016     1.059542    1.741128
    _Iage2_2 |  .9732602   .1258537    -0.21   0.834     .7553684    1.254004
 _Imstatus_2 |  1.091957   .5478282     0.18   0.861     .4084724    2.919095
  _Iregion_2 |  .9785153   .1852153    -0.11   0.909     .6752281    1.418028
  _Iregion_3 |  1.219218   .2745373     0.88   0.379     .7841733    1.895617
  _Iregion_4 |  .6589558   .1492101    -1.84   0.065     .4227807    1.027064
  _Iregion_5 |  .6349134   .1511666    -1.91   0.056     .3981547    1.012458
  _Iregion_6 |  1.050772   .3130109     0.17   0.868     .5860666    1.883953
  _Iregion_7 |  .6207921   .2325944    -1.27   0.203     .2978677    1.293805
_Ireligion_2 |  1.243283   .2591399     1.04   0.296     .8263279    1.870629
     _Igbv_1 |  1.533708   .2360136     2.78   0.005     1.134373     2.07362
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