THE DYNAMICS OF INTIMATE PARTNER VIOLENCE DURING PREGNANCY AND LINKAGES WITH HIV INFECTION AND DISCLOSURE IN ZIMBABWE

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Doctoral Thesis Submitted to the Faculty of Medicine and Health Sciences
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Chairperson of the jury: Prof. Dr. Claude Cuvelier – Chairman (UGent)
DECLARATION

I declare that “The dynamics of intimate partner violence (IPV) during pregnancy and linkages with HIV infection and disclosure in Zimbabwe” is my own work, and that all the sources I have used or quoted have been indicated and acknowledged as complete references. The thesis was simultaneously submitted for examination, through the Faculty of Medicine and Health Sciences of Ghent University (Belgium) and the School of Public Health, Faculty of Community and Health Sciences of the University of the Western Cape (South Africa) under the Memorandum of Understanding of collaboration between the two universities, as a joint/dual PhD degree. The UWC thesis had a separate examination process and this was completed and the degree was awarded in March 2013. The Ghent examination process started in May 2013. This may result in slight differences in the two documents. All the supervisors listed had oversight of the process at both universities. This thesis is written in monograph format with results (Chapters 5-9) written in the form of five manuscripts of which five have been published and one is under review. All papers are included and reprinted with the copyright holders’ permission. This serves to confirm that I am listed in all the manuscripts as the first and main author.

Simukai Shamu.
8th November 2013
DEDICATION

Kuna mai, mudzimai wangu, mwanasikana wangu nevanhukadzi vose.
To my mom, my wife, my daughter and all women
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Last but not least, my family deserves great mention and ululation. Firstly, a million thanks to my mother; Sylvia who again stood with me emotionally throughout the PhD journey. Patience, my beloved wife and Terry, my son, you humbly stood by me throughout. You
needed me along more often than I could avail myself due to pressure of work. Patie, your encouragement during moments when I needed help and support, in times of stressing work and during my many trips is worth mentioning. You make me very proud. Thanks for this great support my sweetheart! Terry, your encouragement was great. I remember one day when you reminded me to do my work when you took your laptop to do your work. I felt so encouraged and started working also. You continued doing this. Your usual “disturbances” always reminded me that I was a family man and not only a doctoral student. Well done boy, little professor!

Lastly, I would like to glorify God: Makatendeka! You are faithful Jesus! Thus far the Lord has taken me!
# LIST OF ABBREVIATIONS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>AAS</td>
<td>Abuse Assessment Screen</td>
</tr>
<tr>
<td>AIDS</td>
<td>Acquired Immune Deficiency Syndrome</td>
</tr>
<tr>
<td>ANC</td>
<td>Antenatal Care</td>
</tr>
<tr>
<td>ART</td>
<td>Antiretroviral Therapy</td>
</tr>
<tr>
<td>ARV</td>
<td>Antiretroviral</td>
</tr>
<tr>
<td>CI</td>
<td>Confidence Interval</td>
</tr>
<tr>
<td>CSO</td>
<td>Central Statistical Office (now ZIMSTAT)</td>
</tr>
<tr>
<td>CTS2</td>
<td>Conflict Tactics Scale version 2</td>
</tr>
<tr>
<td>DBBS</td>
<td>Dynamics of Building a Better Society</td>
</tr>
<tr>
<td>DHS</td>
<td>Demographic and Health Survey</td>
</tr>
<tr>
<td>FGD</td>
<td>Focus Group Discussion</td>
</tr>
<tr>
<td>HIV</td>
<td>Human Immunodeficiency Virus</td>
</tr>
<tr>
<td>IMAGE</td>
<td>Intervention with Microfinance for AIDS and Gender Equity</td>
</tr>
<tr>
<td>IPV</td>
<td>Intimate Partner Violence</td>
</tr>
<tr>
<td>MDG</td>
<td>Millennium Development Goal</td>
</tr>
<tr>
<td>OR</td>
<td>Odds Ratio</td>
</tr>
<tr>
<td>PMTCT</td>
<td>Prevention of Mother-to-Child (HIV) Transmission</td>
</tr>
<tr>
<td>PNC</td>
<td>Postnatal Care</td>
</tr>
<tr>
<td>RR</td>
<td>Risk Ratio</td>
</tr>
<tr>
<td>SRBQ</td>
<td>Sexual Risk Behaviour Questionnaire</td>
</tr>
<tr>
<td>SRPS</td>
<td>Sexual Relationship Power Scale</td>
</tr>
<tr>
<td>STD</td>
<td>Sexually Transmitted Disease</td>
</tr>
<tr>
<td>STI</td>
<td>Sexually Transmitted Infection</td>
</tr>
<tr>
<td>UK</td>
<td>United Kingdom</td>
</tr>
<tr>
<td>UNAIDS</td>
<td>Joint United Nations Programme on HIV/AIDS</td>
</tr>
<tr>
<td>USA</td>
<td>United States of America</td>
</tr>
<tr>
<td>VCT</td>
<td>Voluntary Counselling and Testing</td>
</tr>
<tr>
<td>VLIR-UOS</td>
<td>Flemish Interuniversity Council (Vlaamse Interuniversitaire Raad) - University Development Cooperation (Universitaire Ontwikkelingssamenwerking)</td>
</tr>
<tr>
<td>WHO</td>
<td>World Health Organisation</td>
</tr>
<tr>
<td>ZDHS</td>
<td>Zimbabwe Demographic and Health Survey</td>
</tr>
<tr>
<td>ZIMSTA</td>
<td>Zimbabwe National Statistics Agency</td>
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Introduction: The study assessed the linkages between HIV infection and intimate partner violence (IPV) during pregnancy and after HIV status disclosure in a context where HIV testing has become almost mandatory through the provider-initiated counselling and testing approach and non-disclosure of HIV status to sexual partners has been criminalised in many countries including Zimbabwe. The study also explored women’s experiences of and health workers’ perceptions of IPV during pregnancy.

Methods: A mixed-methods study of IPV and HIV during pregnancy was conducted to determine the prevalence of and risk factors for IPV during pregnancy and after disclosing HIV status, to assess the relationship between HIV, pregnancy and IPV, to understand women’s perspectives of and midwives’ experiences of responding to IPV during pregnancy. A systematic review and meta-analysis of 19 African studies on IPV during pregnancy was first conducted to understand the rates of and risk factors for IPV including HIV and to assist in developing a study of IPV and HIV during pregnancy in Harare, Zimbabwe. This was followed by qualitative research comprising seven focus group discussions (FGDs) with 64 pregnant and post-natal women; and in-depth interviews with seven senior maternity health workers from the six clinics involved in the larger quantitative research, and analysed with thematic content analysis of transcripts. The qualitative phase of the study explored IPV and linkages with HIV and helped to plan and to interpret the quantitative findings.

The last phase of the study was a cross sectional survey of 2042 postnatal women about their IPV experiences and sexual risk practices using an adapted WHO questionnaire and the Sexual Risk Behaviour Questionnaire. Respondents’ antenatal HIV test results were collected from clinic records. The prevalence of IPV and that of HIV were calculated. A severe violence variable was constructed by calculating frequencies of IPV. Multiple logistic regression analysis was conducted to assess factors associated with experiencing IPV, severe IPV during pregnancy and severe IPV after disclosing HIV status.

Findings: The systematic review found a significant variation in the prevalence of IPV during pregnancy (2% to 57%), attributed both to measurement differences and to probable real variations across countries. After adjusting for confounders, IPV during pregnancy was significantly associated with HIV (OR 1.48-3.10) and a history of violence (OR 2.43-274.34) in five out of eight studies while alcohol abuse by a partner was found to increase a woman’s chances of being abused during pregnancy (OR 2.89-11.60). The survey found one of the highest rates of IPV ever recorded, with 63.1% of respondents reporting at least one of physical, sexual and/or emotional violence during their most recent pregnancy. High levels of emotional (44%), sexual (38.9%), physical (15.9%) and combined physical and/or sexual (46.2%) IPV were reported and this was confirmed in qualitative research. At least 30.2% reported severe sexual violence (3+ episodes) while 10.1% reported severe (6+ episodes) physical and/or sexual IPV during pregnancy. 95.5% disclosed their HIV test results to their partners. Overall HIV prevalence was 15.3%, but the prevalence among women who did not disclose was more than double (35.2%) the rate.
among women who disclosed to their partners (14.3%). About 3.5% of women who tested negative did not disclose, but 10.7% of those testing positive did not disclose (p<0.0001). At least 40.5% of HIV positive women reported physical, sexual and/or emotional IPV after disclosure, compared to 31.5% of women disclosing HIV negative results (p=0.004). HIV status was not significantly associated with IPV or severe IPV during pregnancy but with sexual risk factors. Other risk factors for IPV, severe IPV and severe IPV after HIV disclosure, include high levels of gender inequality, past violence (during childhood and adulthood), heavy alcohol use, lack of social support and partner control of woman’s sexuality and reproductive health. Stronger associations were observed with severe IPV.

Institutionalised patriarchy, through the marriage institution, extended family, health system, and the church emerged as supporting and contributing to the abuse of women due to its promotion of gender inequality. Men reportedly refused to accept the physical, emotional, economic and sexual changes associated with pregnancy leading to abuse of women. Midwives were not knowledgeable, equipped or supported by the health system to recognise and address IPV and perceived IPV as a domestic problem and not part of their clinical work.

**Conclusion:** A high prevalence of IPV was reported during pregnancy and after disclosing HIV status with more HIV positive women experiencing abuse than HIV negative women after disclosure. IPV is closely related to gender inequities between partners. The relationship between HIV and IPV is complex and prevention interventions of IPV and HIV must consider levelling gender inequalities. Targeting children and adolescents is critical in primary prevention while the pregnancy context offers an opportunity for secondary prevention in antenatal care. Disclosure of HIV should be conducted without further making women vulnerable to abuse.

**Key words:** Intimate partner violence; pregnancy; HIV; HIV status disclosure; gender inequity; sexual risk practices; systematic review; cross sectional survey; qualitative research; Zimbabwe
SAMENVATTING

Inleiding: Deze studie onderzocht het verband tussen HIV-infectie en partnergeweld tijdens de zwangerschap en na bekendmaking van de HIV status, in een context waarin HIV tests bijna verplicht geworden zijn door het initiatiecrecht van hulpverleners, en waarin non-disclosure van de HIV status aan seksuele partners gecriminaliseerd is, zoals in veel landen – waaronder Zimbabwe – het geval is. De studie verkent ook de ervaringen van vrouwen en de percepties van gezondheidswerkers met betrekking tot partnergeweld tijdens de zwangerschap.

Methodes: Een mixed-methodsonderzoek naar partnergeweld en HIV tijdens zwangerschap werd uitgevoerd om de prevalentie en risicofactoren te bepalen, om het verband tussen HIV, zwangerschap en partnergeweld te achterhalen, en om de perspectieven van vrouwen en de ervaringen van vroedvrouwen met partnergeweld tijdens de zwangerschap te begrijpen. Eerst werd een systematische review en meta-analyse uitgevoerd van 19 Afrikaanse studies rond partnergeweld tijdens de zwangerschap, om inzicht te krijgen in de prevalentie en de risicofactoren (waaronder HIV) voor partnergeweld, wat bijdroeg tot de onderbouwing van een studie rond HIV en partnergeweld tijdens zwangerschap in Harare, Zimbabwe. Dit werd gevolgd door kwalitatief onderzoek bestaand uit zeven focusgroepdiscussies (FGD) met 64 zwangere en bevallen vrouwen, en diepte-interviews met zeven ervaren materniteitsgezondheidswerkers uit de zes ziekenhuizen die betrokken waren in het bredere, kwantitatieve onderzoek. De kwalitatieve fase van de studie onderzocht het verband tussen partnergeweld en HIV en droeg bij aan de interpretatie van de bevindingen uit de kwantitatieve fase.

De laatste fase van de studie was een cross-sectioneel onderzoek bij 2042 postnatale vrouwen naar hun ervaringen met partnergeweld en seksueel risicogedrag. Hierbij werd gebruik gemaakt van een aangepaste WHO vragenlijst en de ‘Sexual Risk Behaviour Questionnaire’. De prenatale HIV testresultaten van de respondenten werden verzameld uit ziekenhuisdossiers. De prevalenties van partnergeweld en HIV werden berekend. Een variabele voor ernstig geweld werd geconstrueerd door het berekenen van frequenties van partnergeweld. Multiple logistische regressieanalyse werd uitgevoerd om de factoren te achterhalen die geassocieerd zijn met het ervaren van partnergeweld, ernstig partnergeweld tijdens zwangerschap, en ernstig partnergeweld na bekendmaking van de HIV status.

Bevindingen: De systematische review bracht een aanzienlijke variatie aan het licht in de prevalentie van partnergeweld tijdens de zwangerschap (2% tot 57 %), toegeschreven aan zowel verschillen in meetmethoden als waarschijnlijk ook werkelijke variaties tussen landen. Na correctie voor confounders bleek partnergeweld tijdens de zwangerschap significant geassocieerd te zijn met HIV (OR 1.48-3.10) en een geweldgeschiedenis (OR 2.43-274.34) in vijf van de acht studies, terwijl alcoholmisbruik door een partner de kans op misbruik tijdens de zwangerschap bleek te verhogen. De studie vond één van de hoogste ratio’s van partnergeweld die ooit geregistreerd werden: 63,1% van de respondenten meldden ten minste één geval van lichamelijk, seksueel en/of emotioneel
geweld gedurende hun recentste zwangerschap. Er werd een hoog niveau van emotioneel (44%), seksueel (38,9%), lichamelijk (15,9%) en gecombineerd lichamelijk en/of seksueel (46,2%) partnergeweld gerapporteerd, en dit werd bevestigd in het kwalitatief onderzoek. Minstens 30,2% rapporteerde ernstig seksueel geweld (meer dan 3 gevallen), terwijl 10,1% ernstig lichamelijk en/of seksueel geweld tijdens de zwangerschap rapporteerde. 95,5% onthulde de HIV test resultaten aan hun partners. De totale HIV prevalentie was 15,3%, maar de prevalentie bij vrouwen die hun HIV-status niet onthulden aan de partner was meer dan het dubbele (35,2%) dan bij vrouwen die het aan hun partners verzwegen (14,3%).

Geïnstitutionaliseerd patriarchaat (door het huwelijksinstituut, extended family, gezondheidssysteem en de kerk) kwam naar voor als ondersteunend en bijdragend tot misbruik van vrouwen via het genderongelijkheid-promotend karakter. Mannen wilden of konden de lichamelijk, emotionele, economische en seksuele veranderingen niet aanvaarden die samen gaan met zwangerschap, en dat leidde tot misbruik van vrouwen. Vroedvrouwen hadden te weinig kennis, middelen of steun vanuit het gezondheidssysteem om partnergeweld te herkennen en te behandelen, en beschouwden partnergeweld als een huiselijk probleem en niet als een deel van hun gezondheidswerk.

**Conclusie:** Er werd een hoge prevalentie van partnergeweld tijdens de zwangerschap en na onthulling van de HIV status gerapporteerd. Na onthulling van de HIV status kregen meer HIV positieve dan HIV negatieve vrouwen te maken met misbruik. Partnergeweld is nauw verbonden met genderongelijkheden tussen de partners. De relatie tussen HIV en partnergeweld is complex en preventieve interventies voor partnergeweld en HIV moeten ook het wegnemen van genderongelijkheden in overweging nemen. Gerichtheid op kinderen en adolescenten is uiterst belangrijk in primaire preventie, terwijl de zwangerschapscontext een gelegenheid biedt voor secundaire preventie tijdens de prenatale zorg. Onthulling van de HIV status zou moeten gebeuren zonder vrouwen kwetsbaarder te maken voor misbruik.

**Trefwoorden:** Partnergeweld; zwangerschap; HIV; HIV status onthulling; genderongelijkheid; seksueel risicogedrag; systematische review; cross-sectioneel onderzoek; kwalitatief onderzoek; Zimbabwe.
CHAPTER 1
INTRODUCTION

1.1 Background

Of the 34 million people living with human immunodeficiency virus (HIV) worldwide, two-thirds (23.5 million) are in sub-Saharan Africa (UNAIDS 2012). One in every 20 adults has HIV in sub-Saharan Africa (UNAIDS 2012). UNAIDS estimates that in the 15-49 year age-group, Zimbabwe has the fifth highest HIV prevalence in the world (14.9%), after South Africa (17.3%), Lesotho (23.3%), Botswana (23.4%) and Swaziland (26.0%). Globally, more than half of the new infections occur among young people (15-24 years) (UNAIDS 2012). The pandemic, however, is gendered. Of the 34 million people living with HIV, more than half are women. Young women constitute 75% of all new infections (WHO 2004). More women (17.7%) than men (12.3%) aged between 15 and 49 years were infected by HIV in Zimbabwe in 2011 (ZIMSTAT and ICF 2012). In addition, young women (15-24 years old) are at up to six times at greater risk of HIV infection compared to their male counterparts (Rosenberg 2002, Pettifor, van der Straten et al 2004).

Many UN organisations including the World Health Organization argue that the deep rooted and pervasive gender inequalities are responsible for the high and accelerated prevalence of HIV among women (WHO 2004). The same has been echoed by the National AIDS Council of Zimbabwe (NAC 2006). Intimate partner violence (IPV) has been considered by researchers as a proxy for gender inequality and has been used in analysing the relationship with HIV (Dunkle, Jewkes, et al 2004, Jewkes, Sikweyiya et al 2011). In sub-Saharan Africa, studies of the relationship between IPV and HIV have been conducted in a few countries including Tanzania, Uganda, South Africa and Rwanda. Studies in these countries found up to a threefold increase of HIV risk among women exposed to IPV when compared to those who had not been exposed to IPV (Maman, Mbwambo et al. 2002, Dunkle, Jewkes et al. 2004, Karamagi, Tumwine et al. 2006, Ntaganira, Muula et al. 2008). There has been little research conducted in Zimbabwe on the link between HIV and IPV.

The WHO Division of Gender and Women's Health identified five ways in which HIV infection may be linked to IPV (WHO 2004). Forced sex may directly increase a woman's risk for HIV through physical trauma; violence and the threat of it may limit a woman's capability to negotiate safer sex (such as condom use); partnering with risky and/or older men exposes women to greater risk of IPV; sexual abuse during childhood may lead to increased sexual risk-taking in adulthood and finally, women who test for HIV and share the test result especially a positive result may be in danger of violence from their partners. In addition, gender-based-violence limits access to and participation in HIV prevention programmes such as voluntary counselling and testing (VCT), prevention of mother to child transmission (PMTCT), sexually transmitted infections (STI) treatment, antiretroviral (ARV) treatment and formula feeding for babies (Maman and Medley 2004).
Violence against women is not only a public health problem, but also a social problem and a violation of human rights that include women’s reproductive health rights (Heise, Raikes et al. 1994, Harvey, Beckman et al. 2002). It manifests itself in physical, sexual, emotional, or psychological and economic forms. It has diverse adverse health effects which are associated with a high use of health care services, long term physical and mental disabilities, poor health status and poor quality of life (Campbell 2002, WHO 2002, WHO 2005, Karamagi, Tumwine et al. 2007). In particular, forced sex may lead to STIs including HIV, vaginal bleeding, decreased sexual desire, genital irritation, pain when having sex, pelvic pain and urinary tract infections (Campbell 2002). Despite all these direct and indirect adverse health outcomes of IPV and the strong relationship between HIV and IPV, it has received little attention from public health researchers in Zimbabwe. Understanding the connection between HIV and IPV helps to plan effective interventions that target reducing both IPV and HIV.

1.2 Problem Statement

Most studies of the intersections between HIV and IPV in Sub Saharan Africa are community-wide population-based surveys (Watts, Ndlovu et al. 1997, Jewkes, Levin et al. 2003, Jewkes, Dunkle et al. 2006, Jewkes, Nduna et al. 2008, Sareen, Pagura et al. 2009) or studies among women attending VCT (Maman, Mbambo et al. 2002, Vetten and Bhana 2001, Guedes 2004, Shefer and Foster 2009). Although these studies provide insight into the relationship between IPV and HIV in the general population, the associations between HIV and IPV during pregnancy may differ from the general population, due to the nature of relationships and women’s economic, social and physical changes and vulnerability during pregnancy. A few studies investigating the relationship between HIV and IPV have been conducted among pregnant women (Koenig, Whitaker et al. 2002, Dunkle, Jewkes et al. 2004, Ntaganira, Muula et al. 2008). The understanding of the relationship between IPV and HIV is inadequate without discussing HIV status disclosure and IPV (Temmerman, Ndinya-Achola et al. 1995). Three reviews reporting on rates and outcomes of HIV status disclosure noted that disclosure rates ranged between 17% and 92% with higher rates found in the developed world signalling that disclosure was associated with access to psychological and institutional support (Maman and Medley 2004, Medley, Garcia-Moreno et al. 2004, Obermeyer, Baijal et al. 2011). The reviews also noted that a number of studies reported women experiencing positive support after disclosure with a few women exposed to negative outcomes such as stigma, discrimination, rejection, divorce, or being chased from home. Of the 31 studies reviewed by Maman and Medley (2004), 26 mentioned some general negative effects without focusing on IPV as an outcome. There is therefore a lack of data related to the link between IPV and disclosure of HIV test results. This study investigates IPV after disclosure of HIV status to a partner.

The health system perspective, particularly maternal health workers’ perceptions of IPV among women attending antenatal care has been researched in Western countries (Bacchus, Mezey et al. 2004, Edin 2006, Roelens, Verstraeten et al. 2008, Bacchus, Bewley et
showing challenges of prevention interventions with pregnant women. However, the challenges would not only be different but of a different scale in African maternal health settings. An example of the major differences is that, maternal health settings in which most research has been conducted, were in Western countries and are generally managed by obstetricians and gynaecologists, compared to nurse midwives managing pregnant women in the African countries. Qualitative research to understand IPV during pregnancy in antenatal care settings and its understanding by antenatal care staff is only emerging in Africa (Laisser, Nyström et al. 2011, Undie, Maternowska et al. 2012). There is therefore need to explore women's experiences of IPV during pregnancy and after HIV disclosure and understand midwives' perception of IPV during this period and after testing and disclosing HIV status. The information may be used to feed into interventions for the prevention of IPV and HIV.

However, the role of the antenatal care in HIV testing and disclosure requires further scrutiny for the development of such interventions. For example, the current practice guidelines in Zimbabwe indicate that pregnant women are encouraged to test for HIV during antenatal care together with their partners and health workers must encourage them to disclose their results to their partners for HIV prevention purposes. Zimbabwe's current Sexual Offenses Act (2001) stipulates that failure to disclose their positive HIV results to partners may lead to prosecution if the other partner is infected unknowingly. Perhaps more significantly than recent legal provisions, however, the patriarchal male dominated system in which male partners have control over the reproductive health and sexuality of women, poses threats to safe sexual practices after HIV testing. The possibility of IPV after testing and disclosing the results has not been systematically researched globally. It is therefore critical to measure the extent to which women disclose their results to partners and their experiences of IPV as a result of HIV testing and disclosure.

Although a study on IPV conducted in Zimbabwe more than a decade ago was a breakthrough, with respect to highlighting the relationship between IPV and HIV in Southern Africa (Njovana and Watts 1996, Watts, Keogh et al. 1998), there have been no further dedicated studies on the subject in the country. In the past decade, research and advocacy focus has shifted from violence against women by intimate partners, to general political violence against both men and women. However, there has been no research that explores whether these broader societal changes are accompanied by changes in the rates and dynamics of IPV. There is therefore limited information on the relationship between IPV and HIV among HIV positive pregnant women attending ANC in Zimbabwe. Population-based-data in Zimbabwe show no relationship between HIV and IPV (Harling, Msisha et al. 2010, Nyamayemombe, Mishra et al. 2010). Since this data includes all women of reproductive age, a possible link with a more defined pregnant population accessing care in public health settings, needs to be investigated. The 2010-2011 Zimbabwe Demographic and Health Survey (DHS) estimated the prevalence of IPV among women
who reported that they were physically abused during one or more of their pregnancies in the last five years to be 5% (ZIMSTAT and ICF 2012). Since the study required women to report about their past pregnancies as far back as five years, it is possible that recall bias influenced reporting, leading to under-reporting of violence. The DHS’s narrow definition of IPV excludes women who never married or cohabited, who were as many as a quarter (24.7%) of the total population of women interviewed leading to an underestimation of the prevalence in many countries and possibly leading to no association with HIV (Harling, Msisha et al. (2010). In addition the DHS only measured physical violence excluding sexual and emotional violence. The prevalence of IPV and its forms among pregnant women is therefore insufficiently documented in Zimbabwe. Measuring IPV prevalence during pregnancy and after disclosure allows us to assess and compare relationships between IPV with socio-demographic, behavioural, pregnancy and sexual risk factors of IPV in pregnancy and after disclosure to gain a better understanding of IPV dynamics. This study sought to establish the association between IPV and HIV during pregnancy. It is the first study in Zimbabwe to explore the dynamics, extent and relationship with HIV, of IPV in pregnancy. An understanding on the extent of the burden facing pregnant women in a double occurrence of IPV and HIV, will feed into policy-making, programme development and implementation.

1.3 Relevance of the Study

There is increasing research on the association between HIV serostatus and IPV in sub-Saharan Africa, but with mixed results. The association and its extent are yet to be established during pregnancy in Zimbabwe. As gender inequality and IPV are increasingly cited as socio-health determinants of the high risk of HIV that women face (Dunkle, Jewkes et al 2004, Jewkes at al 2006, 2010), an urgent research agenda has to be set to provide improved programming on socio-cultural and behavioural strategies to reorient and strengthen HIV prevention efforts. It is also significant to study the link between gender inequality, IPV and HIV, as an alternative to the bio-medical perspective that has tended to neglect the socio-structural aspects of society in addressing HIV prevention and care. The findings contribute to the understanding of the development of prevention interventions which are still emerging. Research on screening pregnant women for IPV is predominantly conducted in developed countries, and findings from this study contribute to an understanding of how to develop interventions with pregnant women in developing settings, to minimize the vulnerability of women during pregnancy and after disclosing their HIV status to their partners. The study findings assist policy makers and service providers to contribute to safe motherhood and child health. The significance of examining the link between gender-based-violence and HIV is apparent in the drive to achieve the Millennium Development Goals (MDGs) (which countries are lagging behind in meeting), particularly, MDGs 3 and 6 which call for the promotion of gender equality and women’s empowerment and combating HIV respectively. Overall, the study contributes to knowledge about the association between IPV and HIV during pregnancy and ultimately the prevention of IPV and HIV.
1.4 Aim and Objectives of the Study

The main aim of the study is to investigate the relationships between intimate partner violence (IPV) and HIV infection and disclosure during pregnancy. The specific objectives of the study are as follows:

i. To systematically review literature to determine the rates of and factors associated with experiencing IPV during pregnancy in Africa;

ii. To estimate the prevalence and frequency of IPV during pregnancy and after disclosing HIV status and compare IPV experiences before and during pregnancy;

iii. To study factors that may be associated with experiencing IPV during pregnancy (e.g., child abuse and forced first sexual intercourse);

iv. To assess the relationship between IPV and the risk of HIV among pregnant women;

v. To examine the association between disclosure of HIV status and IPV among pregnant women;

vi. To explore women's perspectives of sexuality and intimate-partner-violence during pregnancy in relation to HIV testing; and

vii. To explore midwives' perceptions and experiences of responding to IPV in antenatal care.

1.5 Study Hypotheses

Major Null Hypothesis: IPV during pregnancy is not associated with HIV status and disclosure of HIV status

Major Alternate Hypothesis: IPV during pregnancy is significantly associated with HIV status and disclosure of HIV status

Sub-null Hypothesis: Pregnant women who test HIV positive and disclose their serostatus to their sexual partners are not likely to experience more abuse from their partners than HIV negative pregnant women

Sub-alternate Hypothesis: Pregnant women who test HIV positive and disclose their serostatus to their sexual partners are likely to experience more abuse from their partners than HIV negative pregnant women
CHAPTER 2
LITERATURE REVIEW

2.1 Introduction

This section reviews relevant literature on the epidemiology of IPV and HIV globally and on the relationship between IPV and HIV during pregnancy and situates this study in relation to the findings and gaps in the literature. It discusses risk factors for IPV including gender inequities and sexual risk factors, and it reviews the available evidence on these issues for Zimbabwe, including attention to the political and economic conditions and changes in Zimbabwe over the past two decades. It finally presents theoretical and conceptual frameworks that explain the study constructs and the inter-linkages of various factors leading to IPV. As part of and in addition to the literature review, I conducted a formal systematic review and meta-analysis, to understand prevalence and risk factors for IPV during pregnancy in Africa. This helped me to situate the study in the context of relevant studies conducted in Africa. The systematic review is presented as a published manuscript (Paper I) in the findings section.

2.2 Defining Intimate Partner Violence (IPV)

IPV is a form of gender-based-violence and is defined by the WHO as the intentional use of physical force or power, threatened or actual, against a partner that either results in or has a high likelihood of resulting in injury, death, psychological harm, maldevelopment or deprivation (Krug, Mercy, et al. 2002). This study uses the WHO conceptualisation of IPV which includes women's reported physical, sexual and emotional violence perpetrated by one's former or current intimate partner, regardless of the legal status of the relationship. Partner, in this thesis, refers to either a former or current husband, fiancé or boyfriend. IPV includes acts or threats that may lead to physical, sexual, psychological or emotional harm to the partner. Although IPV may be perpetrated by a woman against a husband/male partner, it is violence perpetrated by a male partner against a female partner in heterosexual relations which is more dominant (Jewkes, Levin et al. 2002, WHO 2005) and has been nurtured in patriarchal societies. Any reference to IPV in this study therefore refers to male perpetration of violence against their female partners. The terms “abuse” and “assault” are used interchangeably and consistently with “violence” in this thesis. IPV may be measured by reference to time for example, current IPV and lifetime IPV. Current IPV prevalence is the proportion of ever partnered women reporting having experienced at least one form of violence in the past 12 months, while lifetime prevalence is the proportion of ever partnered women reporting at least one form of violence by a partner or former partner in their life time (Garcia-Moreno, Jansen et al. 2006). IPV during pregnancy refers to IPV that takes place from the time a woman becomes pregnant until delivery. While gender-based-violence is broader and usually refers to any violence perpetrated

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2Gender based violence, of which IPV is a form, is defined by the United Nations as “any act of violence that results in, or is likely to result in, physical, sexual, or psychological harm or suffering to women, including threats of such acts, coercion, or arbitrary deprivations of liberty, (whether) occurring in public or private life” (CSO and Macro 2007: 259).
by a person to another of the opposite sex including IPV, IPV is the most common form of gender-based-violence and refers to intimate partners as either the perpetrator or the victim.

This study uses the WHO (2005) definition of IPV and its three major types (physical, sexual and emotional) described below. Physical IPV occurs when a partner slaps a woman, throws something at her, pushes, hits, kicks, chokes, burns, or threatens her using or actually uses a weapon or object that may harm her. Sexual IPV is when a woman is physically forced to have sex when she does not want to, has sex she does not want to because she is afraid of what her partner might do or she is forced to do something sexual that she finds degrading or humiliating. Emotional IPV occurs when a woman is insulted, humiliated/belittled in public, intimidated/scared on purpose by, or receives threats to hurt her or her relative/friend from a partner (WHO 2005). These definitions cover many actions performed by a man to his partner making it difficult to under report violence. It has been found that definitions of IPV impact on the measurement of violence leading to underreporting or over reporting of violence although the latter is uncommon (Taillieu and Brownridge 2010). The definition and measurement of IPV varies in studies, which makes it difficult to compare as some studies may only ask few questions which may lead to underestimating IPV, while others do not measure other forms of IPV such as emotional and sexual violence (Stewart and Cecutti 1993). This was the reason for the WHO multi-country study across 10 countries using the same research methodology to allow for comparison across countries. Lifetime intimate partner physical violence was reported to be as low as 13% in a Japanese city to as high as 61% in Peru among ever partnered women and sexual IPV ranging from 6% in Japan to 59% in Ethiopia (WHO 2005).

Table 1 shows the prevalence of different types of gender-based-violence and IPV from a multi-clustered national representative population sample (DHS) in Zimbabwe (ZIMSTAT and ICF 2012). IPV among ever married women in Zimbabwe falls within the WHO ranges above with 20.7% women reporting lifetime physical IPV and 13.3% sexual IPV. However, the figures exclude women in the never-married category and therefore may have underestimated the actual prevalence of IPV in Zimbabwe and Harare. Nine in 10 perpetrators of violence reported by women in Zimbabwe were past or current intimate partners. Physical and sexual IPV among ever married women was higher in Harare than the national average. More never-married (8.8% and divorced, separated or widowed (6.7%) than married women (4.4%) reported abuse during pregnancy in Zimbabwe (ZIMSTAT and ICF 2012).

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*Violence directly aimed at sexual or gender identity – for example homophobic violence – may also be considered gender-based-violence.
Table 1: Violence Against Women and IPV in a Nationally Represented Population Study in Zimbabwe (DHS).

<table>
<thead>
<tr>
<th>Type of violence</th>
<th>National %</th>
<th>Harare %</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General violence against women</strong></td>
<td><strong>N=6542</strong></td>
<td><strong>N=1160</strong></td>
</tr>
<tr>
<td>Ever experienced physical violence</td>
<td>29.9</td>
<td>29.9</td>
</tr>
<tr>
<td>Forced sexual initiation</td>
<td>21.6</td>
<td>---</td>
</tr>
<tr>
<td>Intimate partners as perpetrators of all physical violence against women (n=1956)</td>
<td>#80.2</td>
<td>---</td>
</tr>
<tr>
<td>Ever experienced sexual violence</td>
<td>27.2</td>
<td>29.9</td>
</tr>
<tr>
<td>Percentage of all sexual violence perpetrated by intimate partners##</td>
<td>91.8</td>
<td>---</td>
</tr>
<tr>
<td>Ever physical violence during pregnancy among ever married women (n=5054)</td>
<td>5.0</td>
<td><strong>6.1</strong></td>
</tr>
</tbody>
</table>

*Violence by intimate partners among ever married women*  
N=5016  
N=836

<table>
<thead>
<tr>
<th>Type of violence</th>
<th>National %</th>
<th>Harare %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any emotional violence in the past 12 months</td>
<td>22.7</td>
<td>22.5</td>
</tr>
<tr>
<td>Any sexual violence in the past 12 months</td>
<td>13.3</td>
<td>27.2</td>
</tr>
<tr>
<td>Any physical violence in the past 12 months</td>
<td>20.7</td>
<td>25.6</td>
</tr>
<tr>
<td>Ever physical and/or sexual violence</td>
<td>42.3</td>
<td>40.3</td>
</tr>
<tr>
<td>Ever physical, sexual and/or emotional violence</td>
<td>49.6</td>
<td>47.3</td>
</tr>
</tbody>
</table>

Source: (ZIMSTAT and ICF 2012).

* The DHS violence module did not assess IPV among never married women  
#This is for all women. If we include ever married women (n=1678) only, it is 91.8%  
## All women were included. If we include ever married women (n=1596) only it is 95.4%  
** n=832
2.3 Global Variations in IPV Research during Pregnancy

Research on violence during pregnancy has increased over the past decade. Existing literature shows that research on violence against pregnant women has been conducted in different contexts using different study methods (sampling frames, measurement instruments and analysis methods) making it difficult to make comparisons. Qualitative studies are also increasing our understanding of dynamics of violence in pregnancy. Most of the studies on IPV during pregnancy have not used the HIV status of pregnant women in their analysis to understand the dynamics of IPV in both HIV infected and not infected pregnant women. In some studies, investigators assess only physical violence in pregnancy (Stewart and Cecutti 1993). Some assess physical and sexual violence only (Stewart and Cecutti 1993, Muthal-Rathore, Tripathi et al. 2002, Roelens, Verstraelen et al. 2008), while others looked at all three types of violence (Maman, Mbwambo et al. 2001a). The current study integrates all three types of violence.

Data on violence in pregnancy has been obtained from women during different times of their pregnancy or lives such as at 20 weeks gestation age (Stewart and Cecutti 1993), 48-72 hours after delivery (Muthal-Rathore, Tripathi et al. 2002) and as long as five years after delivery (CSO and Macro 2007, Fanslow, Silva et al. 2008) subjecting some responses to recall bias with the passage of time.

Some researchers combine violence experienced just before the pregnancy with violence during pregnancy through asking pregnant women about violence in the past 12 months (Ezechi, Kalu, et al. 2009, Dunkle, Jewkes, et al 2004a) and this is usually considered as pregnancy-related-violence. This is because violence during pregnancy and negative pregnancy outcomes are usually associated with violence that took place just before pregnancy or at the pregnancy onset, for example, in situations of mistimed or unwanted pregnancy and/or forced pregnancy (Stewart and Cecutti 1993, Fanslow, Silva et al. 2008, Roelens, Verstraelen et al. 2008). This measure has also often been regarded as a predictor of IPV during pregnancy. Other studies have also focussed on trends in the relationship between violence and both current and previous pregnancies (Fanslow, Silva et al. 2008, Vatnar and Bjørkly 2010). This has enabled comparisons of violence in pregnancy across parity to understand pregnancy-related-risk factors for IPV.

Most of the studies on violence during pregnancy have been cross sectional in design (Dunkle, Jewkes et al. 2004, Roelens, Verstraelen et al. 2008, Ntaganira, Muula et al. 2009) with a few cohort studies that not only allow an estimation of prevalence of IPV, but also a description of the progression of violence in pregnancy and some causal explanations since the participants would have been followed for a considerable period of time (Temmerman, Ndinya-Achola et al. 1995). Other longitudinal behavioural studies on violence have shown some changes in experiences of violence if men and women are taught gender equity (Pronyk, Hargreaves et al. 2006, Jewkes, Nduna et al. 2008). Different results were also obtained in population-based studies with big sample sizes (CSO and Macro 2007, Fanslow, Silva et al. 2008) and health facility-based studies with limited sample sizes (Muthal-Rathore, Tripathi et al. 2002). In the developed countries, most data
are collected using random telephone interviews or by recruiting participants at health facilities who are given questionnaires to complete at home before posting/handing them to the investigator usually yielding a low response rate such as 39.4% (Roelens, Verstraelen et al. 2008), while in many developing countries interviews in most studies are conducted face-to-face and yield a higher response rate of over 80% (Dunkle, Jewkes et al. 2004).

Two previous reviews of literature on prevalence of IPV during pregnancy are particularly relevant to this study. The first review of prevalence of violence during pregnancy showed rates of IPV between 0.9% and 20% but this only reviewed studies conducted in the Western countries (Gazmararian, Lazorick et al. 1996). A second review, incorporated studies from developing countries (Taillieu and Brownridge 2010). In this global review, 18 studies on IPV during pregnancy recorded prevalence ranging from 0.9 to 30% (Taillieu and Brownridge 2010) with the only study from Africa recording only 2.3% IPV. However, it is crucial to state that although this second review included studies from developing countries including Africa, the coverage of the continent was inadequate due to their limited search methods. There is therefore need to systematically review IPV studies conducted in Africa given that many studies have been conducted in the past decade. A higher prevalence of IPV is likely in Africa given the high levels of gender inequalities and poverty which have also been reported as the drivers of IPV (Jewkes, Dunkle et al. 2006).

Evidence from IPV prevalence studies that looked at IPV both before and during pregnancy suggests that pregnancy may sometimes be a protective period, but may also be associated with persistent or increasing abuse. Stewart and Cecutti conducted a cross sectional survey of 548 pregnant women in Canada which recorded a prevalence rate of 10% physical violence in the 12 months prior to current pregnancy and a subsequent 6.6% during current pregnancy (Stewart and Cecutti 1993). A provincial cross sectional study in East Flanders in Belgium observed a 4% prevalence of physical and/or sexual violence during the 12 months before the pregnancy and 3% prevalence during current pregnancy (Roelens, Verstraelen et al. 2008). In New Zealand from a sample of 125 (the larger study recruited 2391) who reported violence both before and during pregnancy it was observed that 19.7% reported worsening violence during pregnancy, while 26% reported decreasing violence and in 54.1% cases there was no change. In New Delhi, Muthal-Rathore, Tripathi et al. (2002) found a 21% prevalence of violence against pregnant women (N= 800 women). Of the abused 168 women, 23.8% reported abuse for the first time during pregnancy, 7.7% reported increasing violence while 21.4% reported a decrease in violence and 47% reported no change in frequency of violence (Muthal-Rathore, Tripathi et al. 2002). Similar results were found in USA (Koenig, Whitaker et al. 2002). These studies show that violence can start or increase during pregnancy, continue in pregnancy, or stop or decrease in pregnancy in terms of frequency and severity. It is therefore important to assess factors associated with these dynamics. However, studies suffer from small sample sizes and as most of them were conducted in Europe and America it is difficult to extrapolate their findings and trends to Zimbabwe, because of different cultural backgrounds, social and economic dynamics and gender relations.
An exploration of women's experiences of violence and male partner control during pregnancy may help to understand relational issues and how this influences IPV during pregnancy (Bacchus, Mezey et al. 2006). This may help to build an understanding of some of the prevalence differences between and across provinces and regions as well as differences before and during pregnancy. Foregrounding and complementing quantitative research with qualitative research helps to answer some of the questions raised from observing quantitative data, as shall be discussed in the next chapter.

2.4 Why Focus on Pregnant Women?

Women in the reproductive age group experience the most gender-based-violence as they are more likely to be in sexual partnerships. The HIV pandemic is also more prevalent in this group (17.7%) than the general population (14.3%) in Zimbabwe (Chandisarewa, Stranix-Chibanda et al. 2007, CSO and Macro 2007). With research in sub-Saharan Africa continuing to explore the association between IPV and HIV and looking at ways to prevent the two pandemics, it is, therefore, critical to focus on pregnant women and assess their levels of risk of IPV and the association with HIV in pregnancy. The enormous negative health outcomes associated with violence against pregnant women including reproductive health-related problems, mental problems, physical injuries and effect on baby (Heise, Raikes et al. 1994, Campbell, Jones et al. 2002, Campbell 2002, Heise, Ellsberg et al. 2002, WHO 2005, Campbell, Garcia-Moreno et al. 2004, Campbell, Lichty et al. 2006, Teerapong, Lumbiganon et al. 2009), point to the need to research violence against pregnant women, so as to help contribute to safe motherhood and healthy babies. The effects of IPV on unborn children, which include preterm babies, still birth, high risk of exposure to HIV, and low birth weight make an even stronger case for researching IPV during pregnancy, as these effects separate IPV during pregnancy from IPV in general.

The changes in physical, social and sexual issues associated with being pregnant, also influence changes in relationships during pregnancy, resulting in conflict and possible violence. Edin (2006) concluded from a rigorous qualitative research that involved interviewing men, women and midwives that the pregnancy situation, brought with it some vulnerability to women. The pregnancy situation is therefore important to study in order to understand these changes in detail. Such study should include measuring IPV during pregnancy and comparing it to the pre-pregnancy situation, and assessing the dynamics of change.

With increasing roll-out of prevention of mother-to-child transmission (PMTCT) programmes in routine antenatal care, new opportunities now exist to analyse the associations of IPV during pregnancy with HIV. For example, this study was able to utilise the readily available HIV test results in the ANC facilities.

A large proportion of women learn their HIV serostatus during pregnancy (Perez, Orne-Gliemann et al. 2004, Perez, Zvandaziva et al. 2006, Chandisarewa, Stranix-Chibanda et al. 2007). However, the modifications in obstetric and post-partum care for HIV positive women pose a serious challenge for women who test HIV positive and who have to share
their results with partners as they need to take antiretroviral (ARV) therapy for the prevention of mother-to-child HIV transmission (PMTCT) and make decisions on infant feeding (Koenig, Whitaker et al. 2002, Perez, Orne-Gliemann et al. 2004, Perez, Zvandaziva et al. 2006, Chandisarewa, Stranix-Chibanda et al. 2007). It is therefore important to determine the prevalence, forms and magnitude of IPV during this time, when many women reportedly share their results with their partners. This offers a rare opportunity to assess the relationship between IPV and HIV status in general, and IPV and disclosure of HIV status among pregnant women in particular.

As will be discussed in more detail below Zimbabwe records high coverage of ANC (90%) reported in the recent Demographic and Health Survey (DHS) (ZIMSTAT and ICF 2012). Munjanja and colleagues reported a similarly high coverage of postpartum care (80.4%) in Zimbabwe (Munjanja, Nystrom et al. 2009). There is also a high uptake of HIV testing among pregnant women, with a 99.9% uptake in the provider initiated (opt-out) approach and 65% in the traditional client initiated (opt-in) approach (Chandisarewa, Stranix-Chibanda et al. 2007). Current practice follows the provider-initiated-approach. Disclosure of results show similar high prevalence with 88% reported to have disclosed their HIV test results to their partners (Chandisarewa, Stranix-Chibanda et al. 2007). This epidemiological information shows the feasibility of conducting research about IPV during pregnancy with postnatal women at postnatal care facilities.

2.5 Association between IPV and HIV

Studies in sub-Saharan Africa have found the risk of IPV higher in women with HIV. HIV positive women had higher odds of reporting physical IPV than HIV negative women recruited from pre or postnatal clinics in Rwanda (Van der Straten, King et al. 1998) and South Africa (Dunkle, Jewkes et al. 2004). IPV in these studies was lifetime IPV and therefore did not specifically refer to the pregnancy situation. In addition, the study by van der Straten King et al. (1998) assessed HIV 18 months after pregnancy in a two year follow up. These limitations suggest the need to specifically measure IPV during pregnancy and utilize HIV results obtained during pregnancy in order to assess the relationship between IPV and HIV more clearly. Similar findings on the association between IPV and HIV have been found elsewhere in the general population (Cohen, Deamant et al. 2000, Maman, Campbell et al. 2000, Maman, Mbwambo et al. 2002, Sareen, Pagura et al. 2009). Very few studies have researched partner violence against HIV-positive pregnant women and HIV-negative pregnant women. A study conducted by Ntaganira and colleagues in Kigali city and two other rural antenatal clinics in Rwanda, reported that HIV positive pregnant women experienced significantly higher rates of all forms of IPV than HIV negative pregnant women (Ntaganira, Muula et al. 2008).

While there seem to be an agreement that there is an association between IPV and HIV, some studies have found the contrary. Koenig and colleagues published a striking report of no association between IPV and HIV in pregnant women (336 HIV infected and 298 HIV negative) in the USA in a health facility based survey (Koenig, Whitaker et al. 2002). However,
since the study by Koenig and colleagues was conducted in a developed country (USA), the results cannot be generalized to situations with generalized epidemics. Recent analyses of DHS data from across the world show no significant association between lifetime IPV and HIV status diagnosed during the study (Harling, Msisha et al. 2010, Nyamayemombe, Mishra et al. 2010). No associations were found in Zimbabwe (Nyamayemombe, Mishra et al. 2010), Uganda (Kayibanda, Bitera et al. 2012) and in 10 DHS countries combined and as individual countries (Harling, Msisha et al. 2010). However, the DHS data used were cross-sectional which limits our ability to determine the temporality of the association between HIV and IPV as also noted by Harling, Msisha et al. (2010). This points to the need for a better understanding of the complexities in the relationship between HIV and IPV in different settings. However, HIV was associated with gender inequity, gender power and partner controlling behaviours in South Africa (Dunkle, Jewkes et al. 2004, Harrison, O’Sullivan et al. 2006, Jewkes, Sikweyiya et al. 2011). Such contrasting evidence calls for further research on the subject in different settings, with different gender and HIV transmission dynamics, to assess in greater detail the association between HIV and IPV and factors such as gender inequity that may underlie both IPV and HIV.

2.6 The Health Sector and IPV

Due to the magnitude of the IPV problem and its effects on the mother and the unborn child, gynaecological and paediatric professional organisations have recommended interventions with pregnant women in antenatal care settings (Roelens, Verstraelen et al. 2006). However, literature reviews on screening pregnant women for IPV report that gynaecologists and other health care staff are not fully equipped with the knowledge and capacity and do not have the willingness to implement IPV interventions such as routine screening for IPV (Erickson, Hill et al. 2001, Wathen and MacMillan 2003, Roelens, Verstraelen et al. 2006). Health staff often do not perceive IPV to be prevalent enough to warrant their attention. Results from studies conducted in Belgium, Canada and Tanzania show that pregnant women do not disclose IPV to health care staff unless they are prompted to (Stewart and Cecutti 1993, Antelman, Smith Fawzi et al. 2001, Roelens, Verstraelen et al. 2006). Further challenges such as nurses’ negative attitude and scolding of patients in reproductive and sexual health sessions have been documented in South Africa (Jewkes, Abrahams et al. 1998, Wood and Jewkes 2006) and these may have negative effects in responding to partner violence in African health settings.

Qualitative studies with midwives who screened clients for domestic violence found the following obstacles to responding to partner violence: time constraints, lack of training, lack of privacy, unsupportive management, lack of support resources, fear of offending the patient, frustration with patient not changing and lack of feedback after referral (Bacchus, Mezey et al. 2002, Mezey, Bacchus et al. 2003, McCosker-Howard, Kain et al. 2005, Feder, Hutson et al. 2006). In addition, a review of qualitative studies showed that women express dissatisfaction with services given by nurses especially when the nurses are insensitive and do not seem to understand the complexity of partner violence issues (Feder, Hutson...
Chiang and colleagues note that women emphasised the value of just being asked about IPV, regardless of whether they disclosed, as this raises women’s awareness of partner violence and helps to empower them against further abuse (Chang, Decker et al. 2005). This approach may be relevant in less developed countries where the resources for counselling and intervention are limited, although it may sound unethical to ask women without suggesting further assistance. Mezey and colleagues’ study in the United Kingdom recommended how midwives’ workload could be reduced, suggesting that identified cases are referred to a resident specialist domestic violence midwife who works closely with community services to assist with further referrals (Mezey, Bacchus et al. 2003).

Most literature on screening women for partner violence comes from the developed countries, which predominantly presents data from obstetrician-gynaecologists within private settings. However, the situation is different in Zimbabwe and other developing countries, where most pregnant women are attended to by nurses in public health settings (CSO and Macro 2007). It is critical to explore perceptions and experiences of responding to partner violence among pregnant women by nurse midwives working in Zimbabwe’s public maternity services as well as exploring perceptions and experiences from women attending these services.

2.7 Relationship between HIV Disclosure and IPV

The HIV testing process encourages disclosing HIV test results to a partner, in order to prevent the transmission of HIV in sexual partnerships. However, limited research has been conducted on the relationship between the disclosure of HIV test results and IPV. There is also controversy as some studies point to a relationship, while others do not find any relationship between the two. A review of studies on rates and outcomes of a disclosure process concluded that studies did not systematically measure IPV, but spontaneously reported negative effects after a disclosure process, which included stigma, being chased away from home, and some violence reactions. (Maman, Mbwambo et al. 2003). Qualitative studies also reported mixed results from respondents such as women receiving support, while others experienced negative effects (North and Rothenberg 1993, Gielen, O’Campo et al. 1997, Klitzman, Kirshenbaum et al. 2004).

Research in Massachusetts, USA suggests a relationship between STI/HIV test and dating violence as girls who experienced violence at the hands of their partners were three times more likely to have been tested for HIV and STDs and more than two and a half times more likely to have had an STD diagnosis (Decker, Silverman et al. 2005). This study cannot be used to make generalisations on the link between HIV status disclosure and IPV in the Zimbabwean context, because secondary school girls who made up the sample do not represent all women of the reproductive age (15-49) and also because dating violence is different from marital and long term relationships that characterise a number of women in the reproductive age groups. Associations between IPV and HIV status disclosure were reported in the USA (Gielen, Fogarty et al. 2000) and Nigeria (Ezechi, Gab-Okafor et al. 2009). However, some studies reported that receiving HIV test results pre-natally was not
associated with an increase in violence, suggesting that violence could be linked to socio-economic factors that characterise women's health and relations and not HIV serostatus per se (Koenig, Whitaker et al. 2002). In Tanzania, partners who tested HIV positive reported receiving support from their partners (Kistner 2003) and in South Africa those who were abused and did not share results for fear of victimisation by their partners, continued being abused, while the remainder that shared their HIV positive results with their partners, reported continued trusting and loving relationships (Vetten and Bhana 2001).

While these studies suffer from serious methodological problems such as small sample sizes which seriously limit the ability to detect differences or to draw firm conclusions they point to the need for further research with larger and representative samples. HIV status disclosure is an important component of HIV prevention strategies and must continue to be promoted but its impacts on relationships needs to be better understood. Early studies of HIV status disclosure in Africa raised the role of disclosure and its negative consequences in a relationship (Temmerman, Ndinya-Achola et al. 1995) at a time when HIV treatment was not available. Women were abused after they received their test results and disclosed to partners, to such an extent that the researchers felt obliged to stop encouraging women to collect their results. However, since disclosure remains an important aspect of prevention of HIV, strategies to reduce women's vulnerability of violence as an outcome of disclosure in relationships must be a critical aspect of such HIV interventions.

2.8 Risk Factors for IPV and HIV

Research suggests that IPV and HIV share many risk factors which include women's physiological and biological make up; engaging in unprotected sex; sex with multiple partners; higher rates of sexually transmitted infections (STIs); disclosure of an STI; engaging in transactional sex; having a risky sexual partner (Jewkes, Dunkle et al. 2006, Pronyk, Hargreaves et al. 2006, Jewkes, Sikweyiya et al. 2009). Male partner risk factors shared by HIV and IPV include alcohol and drug abuse, injecting drugs, having a history of STI and having multiple sexual partners (Dunkle, Jewkes et al. 2004, Jewkes, Sikweyiya et al. 2009, Geis, Maboko et al. 2011). For instance, studies conducted in the USA, South Africa, Tanzania and Uganda found out that male perpetrators of rape and/or sexual violence, are more likely to be infected by HIV and or other STDs, report inconsistent or no condom use, coerce sexual intercourse without condoms, have multiple sexual partners and that they have more frequent intercourse and these factors greatly expose women to HIV infection (Van der Straten, King et al. 1995, Jewkes, Penn-Kekana et al. 2001, Maman, Mbwanbo et al. 2001a, Jewkes and Abrahams 2002, Abrahams, Jewkes et al. 2006, Dunkle, Jewkes et al. 2006, Karamagi, Tumwine et al. 2006, Raj, Santana et al. 2006).

The UNAIDS and WHO recognise that gender inequality is an important risk factor for both IPV and HIV (Maman and Medley 2004, WHO 2004). Studies in sub-Saharan Africa have also shown positive associations between gender inequality and HIV infection (Van der Straten, King et al. 1998, Dunkle, Jewkes et al. 2004). Dunkle and colleagues reported an
association between IPV and a high level of male control in a woman's current relationship after adjusting for age, women's risk behaviour and current relationship status in South Africa (Dunkle, Jewkes et al. 2004). Exchanging sex for goods or services was also associated with IPV and a measure of the Sexual Relationship Power Scale (SRPS) (Dunkle, Jewkes et al. 2004). Due to the imbalance in power and gender inequality, men often determine the type and frequency of sexual behaviours and women's ability to suggest condom use to their partners is undermined. Men have a tendency to refuse condom use if suggested by their partners and downplay communication about sex and HIV with their partners (Langen 2007).

Socio-economic and demographic characteristics of women such as age, marital status, social class and type of economic activity have been reported in studies in sub-Saharan Africa to be significantly associated with IPV and HIV (Hindin 2003, Jewkes, Levin et al. 2003, Karamagi, Tumwine et al. 2006, Hindin, Kishor et al. 2003, Karamagi, Tumwine et al. 2006, Hindin, Kishor et al. 2008). For example, age (below 30 years) and large age differences between partners were associated with a high risk of abuse and HIV infection in Tanzania (Maman, Mbwambo et al. 2002). Jewkes and colleagues argued that age differences between partners is a marker of HIV risk in that the bigger the age difference between partners, the more we note its effects on gender hierarchy, and as a result the more control exercised by elders on the younger people (older men on younger women) (Jewkes, Levin et al. 2003). This means that female partners, who are usually much younger, are most likely to be victims of physical and sexual abuse. Most of these studies on IPV and HIV did not specifically address IPV during pregnancy.

2.9 Relationship between Child Abuse, Forced First Sexual Experience and Adult Violence

Research points out that there is a causal pathway between past violence, recent or current adult violence and HIV risk. Risk factors for child abuse include low maternal education, early separation from mother, maternal alienation, dissatisfaction, low esteem, sociopathy, maternal illness, low father involvement, harsh punishment (Brown et al 1998). These factors in turn have an impact on the abused teens when they grow up. Having been abused as a child increases one's vulnerability as a teen or adult woman to engage in unsafe sexual practices. Studies in the USA reported that women who were physically abused during childhood were less likely to consistently use condoms in adulthood (Teitelman, Ratcliffe et al. 2008), while in Ethiopia and Pakistan, sexually abused girls were reported to have low self-efficacy to negotiate condom use. They had a low self-esteem, were suicidal, felt helpless and rejected (WHO 2004). Dunkle and colleagues, in a study among pregnant women in South Africa, reported that forced first sexual intercourse was associated with an increase in the risk of current physical and/or sexual violence and that child sexual abuse was associated with an increased risk of current physical and/or sexual violence (Dunkle, Jewkes et al. 2004a). In Uganda, it was found that women who were coerced into sex at their onset of sexual activity, were less likely to use condoms consistently in the six months preceding the interviews, reported more genital tract symptoms and reported unintended pregnancy, than those whose first sexual act was consensual (Koenig, Zablotska et al. 2004)
2004). This could also be mediated by a low self-esteem and less negotiating power on the part of abused women. All these studies demonstrate that domestic violence is cyclic and that abuse in childhood is linked to abuse in adulthood, often with high HIV infection risk.

2.10 Gender-Based-Violence and Gender Inequity

Research on the vulnerability of women to IPV and HIV has received more prominence in sub-Saharan Africa as a response to the devastating effects of the IPV and HIV epidemics (Karim 2005, Hunter 2007, Shefer, Strebel et al. 2011). Heterosexual relationships have been problematised in the context of normative gender roles and gender power relations in Southern Africa (Hunter 2005, Harrison, O’Sullivan et al. 2006, Bhana and Pattman 2009, Clowes, Shefer et al. 2009), while gender inequity has become more broadly recognised as a major determinant of gender-based-violence. For example, in South Africa, the rising levels of intergenerational sex (from 18.5% to 27.6% between 2005 and 2008) whereby younger women increasingly partner with men more than 5 years their age (Shisana 2009) is a worrying phenomenon which increases risk of IPV and HIV among the poor young women by the better resourced, riskier and violent men whom they have transactional sex with (Dunkle, Jewkes et al. 2007). Transactional sex has also been researched in Southern Africa, with results showing strong relationships with IPV and HIV risk (Silberschmidt and Rasch 2001, Dunkle, Jewkes, et al. 2004, Dunkle, Jewkes et al. 2007, Clowes, Shefer et al. 2009, Masvawure 2010, Masvawure 2011). Transactional sex intersects with many social differences in society and creates further vulnerability to women. These studies support a large body of research which emphasizes the existence of a link between high risk sexual practices, normative gender roles and gender power relations. The feminization of poverty in Africa has been linked to the risk of HIV infection among women through the intersection of economic and gender power inequalities.

Shefer and colleagues argue that there is need to support the feminist longstanding challenge of gender inequitable norms and multiple forms of power rather than open, directive and didactic messages addressing HIV knowledge and risk (Shefer and Foster 2009). Such an approach helps to target both HIV and IPV prevention as it acknowledges the interconnectedness between HIV and IPV.

2.11 Socio-economic, Political and Health Situation in Zimbabwe

The government of Zimbabwe’s socio-economic, political and health policies, or lack thereof, in the past decade (2000-2010) have led to a combination of ill-health and life threatening events such as extreme poverty, deprivation, poor health and widening gender inequalities in the country. Some of the links between structural economic factors, gender relations, and HIV are longstanding as discussed further below, and are likely to have been exacerbated by the more acute insecurity of the first decade of this century. The land reform programme which started around the year 2000, was characterized by violence and killings of many people on commercial farms (Moyo 2002, Sachikonye 2011). The land reform programme, together with recurring droughts, led to a sudden decrease in
agricultural output. During the same period, Zimbabwe registered the highest inflation in the world at the time which peaked at 98% per day (79.6 billion percent per month) in November 2008 (Hanke and Kwok 2009). The political situation characterized by pre- and post-election violence (Chitiyo 2000, Moyo 2002) instilled fear and a culture of violence including rape whose casualties were mostly women. Another significant abuse of human rights characterizing this period was the destruction of urban slums in a government programme named Operation Murambatsvina which also left about 700 000 urban people homeless and without a livelihood (Tibaijuka 2005, Bratton and Masunungure 2007). This operation destroyed informal housing and market places. As a result, women's informal trading spaces were destroyed, making them increasingly reliant on their male partners for most of their economic and household needs.

As a result of these socio-economic and political processes, the unemployment rate rose to over 80% (Hartmann and Werner 2011, Pollack 2011) with women being heavily affected. For example, women are charged user fees (US$50) for antenatal and labour care. Brain drain saw many professionals including health workers migrating to other countries, leaving the country's health system grossly understaffed (Chetsanga and Muchenje 2003, Chikanda 2006). The country also faces consistent electricity load shedding and water cuts, which have been linked to outbreaks of diarrheal disease. In 2009 the outbreak of cholera throughout the country killed over 4000 people and over 98 000 cholera cases were recorded, exposing the weak health system especially in urban areas (Todd, Ray et al. 2010). Some of the health effects that these events contributed to directly or indirectly and that faced the population in the research setting, include one of the highest rates of HIV prevalence among women of reproductive health (see below), maternal mortality of over 960/100 000 live births (ZIMSTAT and ICF 2012).

However, the introduction of the multi-currency regime, to replace the unstable local currency and the introduction of an inclusive government helped to stabilize the situation from 2009. Although poverty continued to run throughout the period of the study, certain aspects of health care continued to operate, for example, women continued to receive antenatal care services in these difficult circumstances including PMTCT and the country recorded a huge decline in HIV prevalence from 33% in 1990s to current levels of 15% (Halperin, Mugurungi et al. 2011) as shown below.

### 2.12 HIV Prevalence in Zimbabwe

Zimbabwe is a high prevalence country with a generalized epidemic. The 2010-2011 DHS tested a nationally representative sample (N=15563) of almost equal numbers of men and women and reported a 15.2% prevalence of HIV in the 15-49 years age group (ZIMSTAT and ICF 2012). This figure compares well with the UNAIDS report of 14.9% prevalence (UNAIDS 2012). The current prevalence marks a significant decline from 18.1% in the previous DHS (2005-6) report. Women were more likely to be HIV infected with 17.7% testing HIV positive, while 12.3% men of the same age group testing positive. The epidemic is significantly higher in urban, than rural areas (16.7% vs. 14.6%), among the
employed than those unemployed in the last 12 months (17.9% vs. 13.1%), among both men and women combined. The prevalence was also higher among women with no or low education and those in the lower wealth quintiles, than higher economic quintiles, and those with tertiary education. The differences between men and women show the gendered nature of the HIV infection, which may also have implications for experiences of intimate-partner-violence. The DHS also showed higher levels of men earning cash and owning assets than women and women endorsing wife abuse, sexual abuse and partner control, reflecting the higher control that was previously reported in Zimbabwe (Hindin 2003). These wide differences create vulnerability among women, as women are both economically and socially dependent on their partners.

2.13 Gender Inequality, IPV and HIV Risk in Zimbabwe

Gender power imbalances increase women’s vulnerability to HIV infection. Normative heterosexual masculinity is usually characterised by sexual conquest, multiple sexual partnering, and other risk taking behaviours which makes men and their partners vulnerable to HIV (Ratele 2008, Shefer, Crawford et al. 2008, Jewkes 2010, Jewkes, Sikweyiya et al. 2011). On the other hand, the feminisation of poverty, women’s economic dependency, their subscription to acceptable behaviour norms of “housewife” and “mother”, put them in vulnerable circumstances in relation to IPV and HIV infection. In Zimbabwe, the low status of some Shona women is compounded by fear to remain unmarried as single women usually lack social worth and economic protection. It therefore becomes difficult for women to reject unsafe sex or to disapprove of the various forms of violence by their partners (Jewkes 2002). If for example they leave their husbands, it would entail the return of marriage payments to the husband’s clan, which the in-laws would not be prepared to do (Schmidt 2004). Women often have little or no choice except to live with abusing partners.

The Shona culture, colonial patriarchy and the economic hardships in Zimbabwe especially in the past decade perpetuate unequal gender relations in Zimbabwe (Benson and Chadya 2003, Osirim 2004) that facilitate HIV risk and violence. Kambarami (2006:3) summarises Shona women’s social reproduction of gender inequality based on patriarchy as follows: “Once a girl reaches puberty all teachings are directed towards pleasing one’s future husband as well as being a gentle and obedient wife. Her sexuality is further defined for her, as she is taught how to use it for the benefit of the male...”.

Women have also been made to accept male infidelity as an inevitable social phenomenon. In fact “it is the wife who is blamed for failing to satisfy her husband or for failing to curb his desire to do so” (Kambarami 2006:4). These findings on gender inequity are corroborated by earlier findings from a qualitative study conducted in Zimbabwe which reported that the predominant/normative model of Zimbabwean masculinity expects men to want and have sex regularly, while women are punished if they appear to enjoy sex too much or if they are thought to be unfaithful (Njovana and Watts 1996). Watts and colleagues reported
that men in marriages not only perpetrated forced sex (25%) but also withheld sex (17%) to punish or discipline their wives and that men who perpetrated physical violence were more likely to withhold sex and have multiple concurrent sexual partners (Watts, Keogh et al. 1998).

IPV is rooted in the customary practice of Zimbabwe which regards wife beating as a correctional measure that a man may use towards his wife, though he should not cause visible marks on her (Holleman 1952, Schmidt 1992, Makahamadze, Isacco et al. 2012, Matavire 2012). It is considered as chastisement such as that done to a child (Njovana and Watts 1996).

Anthropological work done in Zimbabwe revealed that a man could beat his wife when she committed serious offences against the marriage contract such as denying him conjugal rights, failing to cook, clean the house, or care for the children (Holleman 1952, Schmidt 1992, Matavire 2012). These circumstances were interpreted as refusal to obey the husband's authority. Recent evidence substantiates this finding that women themselves (53%) especially younger women still regard wife beating as a justifiable, normal and acceptable disciplinary measure (Hindin 2003). Such an exercise of male power and its justification by women may help to explain the high prevalence of sexual violence, 21% and 37%, reported earlier by Rusakaniko, Mushunje et al. (1997) and Watts Ndlovu et al. (1997) respectively in Zimbabwe.

Osirim (2004) argues that IPV was associated with the socio-structural and macro-economic hardships during the Economic Structural Adjustment Programme (ESAP) in the 1990s in Zimbabwe. ESAP had the effect of limiting men’s economic power in the family which subsequently limited their power to control their spouses and men resorted to violence to assert their control over their intimate partners. This analysis is supported by Jewkes who remarks that men’s power is rooted in their ability to economically control women, failure of which makes them violent (Jewkes 2002). Evidence from the ZDHS demonstrates that women who belonged to the lower economic quartile were more likely to report being abused than those in the higher economic quartile (ZIMSTAT and ICF 2012). This argument suggests that the rapidly increasing poverty in Zimbabwe since 2000 may have an impact on the levels of IPV. Violence against women was also witnessed during key moments of Zimbabwe’s political history including the liberation war, rounding up of unaccompanied women in mid-1980s (Schmidt 1992, Osirim 2004) and national elections. It may be argued that the nurturing of violence in the public sphere serves to socialise men to perpetrate violence and women to passively accept violence as a normal practice.

2.14 Theoretical and Conceptual Frameworks
2.14.1 Feminist Perspectives on Violence Against Women

This study draws on feminist perspectives on gender-based-violence to contextualize and explain IPV and risk of HIV in Zimbabwe. While a large body of feminist work on gender-based-violence has been developed over the last few decades, with different perspectives on understanding the problem, there is some agreement on the underlying roots of violence against women and its enmeshment in gender power inequalities and the social construction of masculinity and femininity. Feminist theorists have highlighted how violence against women cannot be understood outside of broader social gender inequality that exists between men and women across cultures and history. Almost every traditional African society was once patriarchal. Women were controlled by men, their position being decidedly secondary and subordinate. One of the early and influential second wave feminists, Ann Oakley argues that the differences between men and women are largely the construction of society and not about sex differences and such a perspective has been well accepted in the social and health sciences more broadly (Oakley 1972). It is these differences of gender, however, that are used to justify inequalities between the sexes and the appropriation, by males, of the major part of power, leisure, time and resources. Customary practice allows the subordination of women to continue as a normal way of organising society and was supported in Africa by the colonial administrations. This law was continued by the independent Zimbabwean government thereby continuing to denigrate the position of women (Gaidzanwa 1998). Feminists argue that IPV will continue until the systematic inequality between men and women is addressed (Bowman 2002). Women’s sexuality and health is a factor of their feminine subordinate social position (Courtenay 2000). In the African context, it has been argued that the widespread abuse of partners emanates from the uneven distribution of power within traditional African marriage relationships, the exercise of power by the extended family over the married couple, the acceptance of male promiscuous behaviour and polygamy, and the almost universal institution of bride price. Before the girl is married, the power to control her life rests with her father and brothers which upon marriage as defined by bride price, is transferred to the husband. Women’s sexuality therefore falls under the control of men throughout a woman’s life. Feminists such as Du Toit and Gouws (2005), Dutton (1994) and Dutton and Nicholls (2005) argue that patriarchy is a cultural male enterprise that requires violence or the threat of it in order to survive.

Feminist understandings of gender-based-violence call for realignment of means of dealing with larger gender inequalities at a socio-political level and their complex intersection with class, race, and other forms of inequality that facilitate poor, young women’s vulnerability to unequal relationship and gender-based-violence. In addition, feminists also call for gender relations which include redistribution of gender power in favour of women and replacing violence with communication and discussion to resolve conflict to enable safer relations between partners. The acknowledgment of the complex intersection of gender
power inequalities with class and education and other forms of power inequality has also been fore-grounded in studies on violence against women (Vetten and Bhana 2001, Jewkes, Levin et al. 2003, Boonzaier 2005, Reddy and Dunne 2007, Ratele 2008, Shefer, Ratele et al. 2008, Clowes, Shefer et al. 2009). To cite two recent examples, there is evidence from the IMAGE (Pronyk, Hargreaves et al. 2006, Pronyk, Kim et al. 2008) and Stepping Stones (Jewkes, Nduna et al. 2008) studies in South Africa that women’s economic empowerment and education on gender equitable and sexual practices may yield good results in the prevention of IPV and risky sexual behaviours.

### 2.14.2 Social Learning Theory

The theory which was developed by Bandura uses the concept of modelling to explain how behaviour is learned by observing role models (Bandura, Ross et al. 1961). In modelling, one imitates or models the behaviour of a person they consider as important, influential or successful (Nutbeam and Harris 1998, Glanz, Rimer et al. 2008, Akers 2009, Wall and McKee 2012). Parents are usually role models for children. This theory helps to explain why girls who witnessed their mothers being abused by their partners are more likely to be abused in their adult relationships and similarly boys who witnessed their fathers abusing their partners are more likely to become abusers. Apart from observing violence, girls also learn the social and moral justification for violence and will more likely justify violence when it is perpetrated against them. However, this may not apply in all circumstances as children who witnessed violence or were abused may also learn positive behaviour that help them avoid being abused in later life. The theory shifts blame from the perpetrator, in this case men, which may, however, limit efforts to prevent further perpetration of violence. Despite these limitations, the theory helps us to understand the inter-linkages between child abuse and abuse in adulthood.

### 2.14.3 The Ecological Approach to IPV

Heise (1998) conceptualized the ecological approach in gender-based-violence with many other researchers subsequently applying it in violence studies (Grauerholz 2000, Oetzel and Duran 2004, Campbell, Dworkin et al. 2009, Obasaju, Palin et al. 2009). Heise argued that gender-based-violence is a multi-faceted phenomenon that is grounded in an interaction among several factors across personal (or individual), relationship, family, community and more broadly societal spheres of influence. The current study examined personal factors such as age, relationship dynamics which include frequency of conflict, familial factors like witnessing parental violence, community factors for instance beliefs and attitudes towards wife beating, and finally the society-wide factors such as patriarchal domination of women by men. These aspects were tested in both qualitative and quantitative research and the extent to which they are related to IPV during pregnancy were examined. The approach helped to understand IPV during pregnancy in a broader spectrum and may also help develop comprehensive interventions to prevent IPV. For example, the ecological framework helps us to examine the influence of the health system, as a social ecology, on
IPV after HIV testing and disclosure.

2.14.4 Theoretical Framework

Figure 1 illustrates the conceptual framework for the study, showing how some of the theoretical concepts discussed above directly and indirectly create vulnerability for pregnant women to be abused by their partners. In this thesis I started out with the feminist perspective and the social learning theory but later realised that some factors were better understood through the ecological framework. In order to integrate all the concepts of these frameworks, I ended up with a conceptual framework that considers all the theoretical frameworks discussed above. Combining all the theoretical frameworks helps to gain a better understanding of both the immediate and distant factors in their relations with IPV, whether during pregnancy or after HIV disclosure. Poverty, a social determinant of health, influences the subordination of women to their partners who may have better socio-economic positions than them (Jewkes (2002). Due to poverty, some women partner with men who are more economically empowered than them, sometimes for financial gain, but who unfortunately end up abusing these women. The patriarchal ideology which socializes women to be loyal, respectful and subordinate to men is internalized by women who endorse the use of violence to punish wrong doing. Negative masculine forms such as sexual conquest and having multiple sexual partners create vulnerability for women (Jewkes, Sikweyiya et al. 2011). Alcohol abuse makes men lose their sense of judgment, reduces inhibitions and impairs the ability to interpret social cues, leading to quarrels and IPV in intimate relationships (Jewkes 2002).

The influence of the health system through teaching and encouraging disclosure of HIV status creates vulnerability for women as those who test without partners' permission or test and disclose a positive status, are vulnerable to being abused. HIV testing and disclosure of HIV status is a gendered process with many more women than men testing and disclosing their status to their partners, resulting in IPV. Some of the HIV prevention messages offered to women during antenatal care unfortunately and unintentionally promote the abuse of women, for instance, encouraging women to have sex with their partners even under difficult and painful conditions in order to discourage them from having sex with other women. Frequent conflict triggers IPV in relationships after HIV testing and disclosure when partners blame each other for HIV infection.

This chapter reviewed literature on prevalence of IPV during pregnancy and risk factors for IPV globally, in Africa and in Zimbabwe. The chapter assessed previous literature on the association between HIV and IPV and noted the gaps with respect to IPV during pregnancy in Africa and the contradicting information on the association between IPV with HIV infection, as well as the unavailability of research on the response of the health sector to the problem of violence during pregnancy in resource limited settings. It contextualized IPV during pregnancy using three theoretical/conceptual frameworks. The next chapter presents the methodology of the study which is contextualized in the theoretical framework discussed above.
Figure 1: Conceptual Framework Showing the Interconnectedness of HIV, IPV and Other Factors
CHAPTER 3
METHODOLOGY

3.1 Introduction
This section presents the methods of the study's three phases with three designs. The section begins with the study designs in the order in which the study was conducted—systematic review, exploratory qualitative phase and lastly cross sectional quantitative study. The systematic review of literature on prevalence of and risk factors for IPV in Africa, done in 2009, built on the broader conceptual literature review and helped to situate the study in the context of empirical research in Africa. This was followed by the qualitative phase of the study in 2010 which helped to inform the design of the questionnaire for and interpret findings from the quantitative cross sectional survey of postnatal women conducted in 2011.

3.2 A Mixed Methods Paradigmatic Approach
A mixed methods approach is a field that is gaining momentum in social science and public health research. Johnson and colleagues defines it as follows;

“Mixed methods research is the type of research in which a researcher or team of researchers combines elements of qualitative and quantitative research approaches (e.g., use of qualitative and quantitative viewpoints, data collection, analysis, inference techniques) for the broad purposes of breadth and depth of understanding and corroboration...A mixed methods study would involve mixing within a single study; a mixed method program would involve mixing within a program of research and the mixing might occur across a closely related set of studies.” (Johnson, Onwuegbuzie et al. 2007:123)

The key feature of mixed methods research is the "synthesis that includes ideas from qualitative and quantitative research" (Johnson, Onwuegbuzie et al. 2007: 113). The approach emanates from the idea that human behaviour cannot be understood by one method or paradigm but that human behaviour has multiple realities which need multiple ways of understanding it, and that the aim of research is not to establish facts but to understand these multiple realities (Schütz 1945, Ivanoff and Hultberg 2006). This idea was influenced by phenomenological theoretical work on the concept of triangulation which was coined by Webb, Campbell et al. (1966) but defined more broadly by Denzin (1978: 291) as “the combination of methodologies in the study of the same phenomenon”. Denzin listed the different ways of triangulation which include triangulating data, investigators, theories, or methods.

By data triangulation, Denzin (1978) referred to the use of a variety of data sources to understand a reality or phenomenon. Triangulation helps to increase confidence in a researcher’s findings as it approaches a phenomenon from different perspectives to increase validity and reliability (Johnson et al 2007:114). Denzin argued that one can triangulate data sources, theory, investigators or methodologies, either (or both)
“within-methods” (eg. using multiple quantitative approaches) and “between-methods” (combining both quantitative and qualitative approaches) (Johnson et al 2007:114). This study triangulates data from different sources which include published data from the systematic review and meta-analysis, clinic registers for women’s HIV test results, data from quantitative survey of postnatal women as well as data from midwives’ accounts of IPV during pregnancy and their own perceptions of IPV. The triangulation of theory in which different theoretical perspectives are used to understand reality was used in this study through the use of the social learning, feminist and ecological theory in analysing risk factors for IPV. A diagrammatical conceptual framework was used to show the interconnectedness of various factors associated with IPV and links with HIV. Lastly Denzin defined the methodological triangulation as the use of different methods of studying a research problem. This study used a variety of methods of data collection which include face-to-face interviews - both questionnaire and in-depth unstructured qualitative interviews, clinic records reviews, focus group discussions as well as desk review for the systematic review. It moves research beyond “qualitative versus quantitative” to an approach with research methods complementing each other.

The mixed methods approach increases reliability of research results, increases the thickness and richness of data and analysis and helps to uncover contradictions which may lead to a deeper understanding of complex phenomena. It also seeks convergence and corroboration of results by studying a phenomenon using different methods and enhances complementarities (Johnson, Onwuegbuzie et al. 2007, Razum and Gerhardus 2002, Johnson and Onwuegbuzie 2004, Farmer, Robinson et al. 2006). Whether the quantitative should follow or precede the qualitative component or be done simultaneously have been discussed extensively by Bryman (2007). Bryman (2007) suggested that if the quantitative follows the qualitative, the qualitative results should not just be used as a “springboard for hypothesis testing” but also to interpret quantitative results. This thesis followed this approach by firstly synthesizing existing published literature in the form of a systematic review which influenced qualitative research; qualitative research in turn helped to design the questionnaire for the quantitative survey and to assist explaining the results from the quantitative study.

However, the mixed methods approach is expensive, time consuming, the researcher may have difficulties analysing conflicting data, and it may be difficult for a single researcher to do mixed methods research (Johnson and Onwuegbuzie 2004) as in a doctoral thesis.

3.3 Study Setting
The study was conducted at six public primary health facilities in the south-western low-income (high-density) residential suburbs of Harare in Zimbabwe. The facilities were managed by the Harare City Council Health Department. The clinics offered a wide range of primary health care services including antenatal and postnatal care. The six facilities are about 7 to 25 km from Harare central business district.
Many pregnant women lived within a walking distance to a facility with others having to use public transport to reach a health facility. The clinics opened at least once per week for antenatal care services and about four times per week for post-natal care. All pregnancy cases that were likely to require special care were referred to two tertiary hospitals (Harare Central Hospital and Parirenyatwa Group of Hospitals). Most pregnant women in Harare delivered (91.6%) (CSO and Macro 2007) and received 10 days and 6 weeks postpartum check-up (80.4%) from a health facility (Munjanja, Nystrom et al. 2009). Each facility registered between 10 and 30 new pregnant women a day (Clinic Monthly records 2011). Although the health system was weakened by the political and economic situation in the country, maternal health care services in Harare City Health clinics did continue to run. As part of government policy, all pregnant women were offered HIV testing through the provider-initiated HIV counselling and testing programme. This was done on pregnant women’s first visit. Those who tested positive were registered for PMTCT. Nurses conducted HIV counselling and testing using Determine rapid test (Abbott Laboratories, Abbott Park IL, USA) and positive results were confirmed using Capillus (Trinity Biotech, Bray, Co Wicklow, Ireland). If still discordant, western blot testing was conducted to resolve the conflict.

3.4 Ethics

The study whose full ethical statement is in Appendix A, received ethics approval from the Medical Research Council of Zimbabwe, the Joint Parirenyatwa and College of Health Sciences Research Ethics Committee and the University the Western Cape’s Senate Research Committee. Ethical clearance letters are attached in Appendix B-D. Permission to conduct the study at the clinics was obtained from the Harare City Council Health Directorate (Appendix E). The research fieldwork followed WHO (2005) ethical guidelines for researching violence against women and girls. Participants signed written informed consent (Appendix G) and assent (Appendix H) in the case of those below age 18 years after the information sheet (Appendix F) was read to them. Confidentiality was maintained throughout the study. To protect the women, no identifying information was used in the manuscripts or in this thesis and clinic names were replaced with letters of the alphabet and pseudonyms. The HIV test results were accessed with written permission from the women. Respondents who needed help were referred to organisations that work against gender-based-violence in Harare. Support to the fieldworkers was ensured by organising counselling with a clinical psychologist for research assistants who needed help. A deeper reflection on the ethical and psycho-social dimensions of this research is included in the Discussion (Chapter 10).

4 Many of those women who do not report for postnatal mother check-up as reported in the DHS, which is 6 weeks after giving birth, were captured in this study during the 10-day postnatal care clinics for child health clinic (not for mother check-up) which may not have been reported in the DHS. The limitation of recruiting only from six weeks postpartum was noted well before embarking on the study. To address this limitation, and knowing that in most African studies postnatal mother check-up is low, I then planned the study to include women in child health clinics (including immunisation). This therefore increased the chances of recruiting women who were recently pregnant. Six weeks postnatal mother check-up is usually attended by fewer (43%) women (ZIMSTAT and Macro 2012) but if women who attend baby clinics including immunisation clinics are added to the sample, it constitutes a near representative sample of women who were recently pregnant (80%) (Munjanja et al. 2009). I used the figures from Munjanja et al. (2009)’s population based study on maternal and perinatal mortality which had a larger sample size (N=45158) than that of the DHS (N=2448). Munjanja et al. (2009)’s study was a maternal and perinatal mortality study conducted in Zimbabwe and had specific measurements that were likely to give more reliable data than the DHS which is not focussed on maternal health. However, it remains a limitation that about 20% pregnant women do not visit the postnatal care clinic after giving birth and our study could therefore have missed interviewing some recently pregnant women by interviewing postnatal women. This limitation was further discussed in the section on limitations.
3.5 Systematic Review

3.5.1 Systematic Review Methods

The aim of this systematic review was to systematically assess literature and sum up the evidence from original empirical research conducted in Africa on prevalence and risk factors for IPV among pregnant women. Paper I presents the results of the systematic review. The review also focused on the relationship between IPV and HIV. The review followed the 27 check list items and flow diagram of the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) (Liberati, Altman et al. 2009, Moher, Liberati et al. 2009) in the planning, conducting and reporting results from the review and the meta-analysis. Peer reviewed journal articles were primarily obtained by searching electronic databases using Ebscohost search engine. The following medical, health and social sciences databases were searched: Medline, Google scholar, Pubmed, SocIndex, Academic Search Premier, Family and Society Studies Worldwide, PsycArticles, Women's Studies International, Africa Wide Information databases to obtain articles on violence during the time of pregnancy. The search period from 2000 to 2010 period was chosen because studies only emerged from Africa from late 1990's. No systematic review was found on the topic in Africa. Searches were conducted using the following key words: IPV, gender-based-violence, violence against women, pregnant women, spousal violence, domestic violence, wife beating, wife abuse, spousal abuse, violence in pregnancy, violence and antenatal care, Africa, prevalence, risk factors, associations. Additional searches included the reference lists of the articles being reviewed and these were checked for relevant articles. An independent hand search was also conducted on specific African journals (e.g. Annals of African Medicine). Full text of some articles that only showed abstracts in the electronic databases or journals searched were obtained by emailing authors of the papers. The articles were checked for duplications in the different databases searched.

Published literature was searched for original, quantitative research studies. Our search criteria included articles reporting research conducted in any African country using either cross sectional, cohort, case control, or randomized controlled trial study designs. Articles must have been peer reviewed and published in English in academic journals. In addition, studies should have been conducted with pregnant or postnatal women (within two months of giving birth). Women had to be the primary source of information. The focus of the articles was prevalence of IPV (physical, sexual and emotional) and/or risk factors for IPV among pregnant women. Intimate partners were defined as past and current spouses, boyfriends, fiancées, whether married, cohabiting or dating.

A data extraction form was designed to collect the following information: country where data were collected, study design, sample size, response rate, target population, sampling method, tools used, case definition, interview type and outcomes from each study. The author was the main reviewer to extract information and a second reviewer extracted information to determine convergence. Papers were examined to ensure that they do not display the same data-set in different papers. Two papers that reported from the same data-set but reported different information were both included. Conflict in scoring
between the reviewers, was reached by consulting a third reviewer. Study authors were contacted in the case of unclear or missing data. The search identified 131 abstracts but after screening these abstracts 95 were excluded because they either did not primarily focus on Africa; were not based on original research or did not have information on risk factors or prevalence.

A further screening dropped 17 papers which did not focus on IPV during pregnancy leaving 19 studies which were finally reviewed.

### 3.5.2 Analysis of Systematic Review Data

In assessing the quality of data the study adapted a criteria developed by Alhabib, Nur et al. (2010) and the following criteria was used: 1) Specification of the target population; 2) use of strong sampling methods (e.g. random sampling); 3) adequate sample size (at least 300 participants); 4) adequate response rate (≥80%); 5) measurement with valid and tested instrument [e.g. Conflict Tactics Scale 2, Abuse Assessment Screen]; 6) reporting of confidence intervals or standard errors; 7) reported attempt to reduce observer or other forms of bias; 8) adjusted for confounding variables. The instruments were categorized into conflict tactics scale, abuse assessment screen, the WHO questionnaire for measuring domestic violence against women and lastly ‘own tool’ where no known instrument was used.

Systematic review data were analysed by conducting a fixed effect meta-analysis using STATA statistical software version 11 (StataCorp 2009). Forest plots with prevalence and 95% confidence intervals were plotted. We assessed heterogeneity between studies by using the I-square statistic and by visually examining the forest plot for overlapping confidence intervals. Since there was considerable heterogeneity, the pooled result from meta-analysis for all variables was not used except for the overall IPV during pregnancy.

Risk factor analysis was conducted by tabulating and describing odds or risk ratios with associated 95% confidence intervals and p-values. Meta-analysis of risk factors was not possible because many studies did not report sufficient data to conduct meta-analysis. Chapter 5 (Paper I) reports the findings of the systematic review.

### 3.6 Qualitative Research

The objective of the qualitative research was to describe pregnant and postnatal women's experiences of violence during pregnancy and to understand health workers’ perceptions of IPV during pregnancy (Paper IV and V) including how midwives respond to abused women in antenatal care. This information was important in the design of quantitative tools as well as in helping to explain the quantitative data. The methods included focus group discussions with pregnant and postnatal women and in-depth interviews with health workers which are discussed below.
3.6.1 Focus Group Discussions (FGDs)

A focus group discussion is a data collection method that uses a moderated group discussion (4-12 participants) based on the participants' perceptions, views and experiences of a topic decided by a researcher (Tong, Sainsbury et al. 2007, Carlsen and Glenton 2011, Carlsen and Glenton 2012). A key feature of the FGDs and one that distinguishes it from interviews is that it emphasizes the interaction among participants with the researcher only guiding the discussion while interviews emphasize interaction between researcher and participant. FGDs help to better understand society from the point of view of the researched people. FGDs are commonly used in pre- or post-surveys to elicit or explore stakeholder views about a social or health issue. Although the focus group discussion is ‘focused’ on a collective activity (Kitzinger 1994, Reed and Payton 1997), there is also room to use the focus group discussion to discuss participants’ views in a group since the group shares societal views. The advantage of using FGDs is that it capitalizes on group interaction to get the rich data about the experiences of people (Webb and Kevern 2008). Kitzinger (1995) argues that it captures data that would be difficult and somehow inaccessible in face to face individual interviews. In our study, the rich data of how violence takes place in intimate partnerships during pregnancy, an issue that is regarded as private and domestic was shared in FGDs as women reported them as community views. FGDs help to give validity to research as issues that are discussed are confirmed, reinforced or contradicted within the group setting (Webb and Kevern 2008) giving the researcher credible data thereby giving it a high level of face validity (Krueger and Casey 2009).

Seven exploratory FGDs were held with 64 pregnant and post natal women in order to get information that helped to fine-tune the design of the questionnaires and to help in explaining quantitative data. Four of these were held with pregnant women to explore issues related to IPV during pregnancy in general and three were held with women attending postnatal care to explore issues on HIV status disclosure and IPV. In qualitative research a researcher can collect information from many focus group discussions until data saturation is reached. In this study after seven FGDs were conducted the researcher felt that all the issues had been adequately covered and no new information was still reported and did not organise more FGDs. However, the interview guide (Appendix I) did not limit either group from discussing anything related to the study. Participants were any pregnant women between 15 and 49 years old attending antenatal care or postnatal care at the study clinics. While the study focused on the time of pregnancy, separate FGDs with pregnant and postnatal women were held to assess the extent to which we could be able to get information about disclosure of HIV and IPV experiences in the entire pregnancy in each group. With pregnant women, it was realised that we could only get information about IPV up to a certain extent compared to postnatal women who could report until they delivered, thereby maximising the reporting time. A female research assistant recruited participants at the clinics. Women were approached at the clinics where they queued to receive antenatal or postnatal care services. Based on Carlsen and Glenton (2011)’s findings from a review of FGDs in research that the median number of participants was eight, it
was decided that eight participants would be selected to participate in each FGD. When the number of women at the time of our arrival was higher than 10 women, systematic sampling (selecting every nth woman on queue) was used to select only ten women to participate in the focus group discussions. When there were fewer than 10 women all were included in the FGD. If more women visited the clinic than the clinic can attend to, the clinic managers asked some “excesses” to return on the next antenatal care day. The research assistant introduced the study by reading the information sheet with all safety and ethical issues to the clients and asking them if they were willing to participate in the study. No woman refused to participate in all the sessions; they were eager to participate in the study which was introduced as a women’s health study. Women signed the informed consent forms. Discussions were conducted in a private room at the clinic.

All women were reported to have tested for HIV during their initial ANC visits through the provider initiated HIV testing and counselling (PITC) (personal communication with nurses), although we did not verify their test results. Women were requested to complete their demographic information anonymously.

FGDs were led by a researcher and a trained female research assistant audio-recorded the discussions which lasted 1 to 1½ hours. Field notes were also taken. The FGD Guide (Appendix H) covered the major thematic areas contained in the validated IPV research instruments designed by the WHO (2005) which were used in the broader study. The discussion guide was flexible to allow related but unforeseen issues to be discussed. The initial questions focused on women’s household chores, planning in the household, and likes and dislikes during pregnancy. The discussions eventually progressed into the more sensitive issues of IPV and HIV. To enable open discussion, participants were invited to narrate their experiences as stories they had heard about other people. Participants were reminded not to disclose their HIV status during the discussions. Participants were served with refreshments during the discussions to create a natural environment and enhance discussion. Generally, all participants were active and the facilitator ensured that no participant could dominate the discussion by giving all women adequate chances to share their views.

3.6.2 Interviews with Health Workers

Seven key informant interviews were conducted with six midwives (one midwife per clinic) and an additional HIV testing counsellor was interviewed. An interview guide (Appendix J) was used during the interviews with more probing helping to elicit information from informants. Purposive sampling was used to select health workers to interview. This was important in order to select a health worker who had the information we wanted. The researcher selected a senior health worker responsible for running the antenatal care at each facility and this was mostly a sister in charge of the maternity clinic. These officers were also responsible for compiling reports of all their activities in the maternity wards. They were also key, because they were able to speak about the operational and management of maternity services, including how the clinic dealt with identified cases of
violence. In some cases, they assisted with the delivery of care to pregnant or post-natal women to alleviate the shortage of maternity nurses. They were therefore knowledgeable about management as well as operational and technical issues in the maternity and post-natal clinics. At one clinic the researcher interviewed an HIV counsellor after being referred by the key respondent to him and obtained information about the process of testing and disclosing of HIV status and its challenges. The interviews, which were conducted in the matron's offices, helped us to secure information on the forms and dynamics of violence that midwives identified and how they identified abused women or were reported to them by pregnant women, their perceptions and experiences with abused women. This information helped in describing the dynamics of violence against pregnant women (both HIV positive and HIV negative) from the perspective of health workers who attended to abused women.

3.6.3 Analysis of Qualitative Data

Audio taped data from focus group discussions and in-depth interviews were transcribed verbatim. Transcription reliability and accuracy were checked in a random sample of transcripts by an independent transcriber. The transcripts that were in Shona were translated to English and back translated by an independent transcription specialist, to compare with the original script if there were any deviations. There were no significant deviations that required redoing the transcriptions and translations. The transcripts were loaded into a qualitative data management programme called OpenCode, where data were classified into codes and categories. Through repeated reading of the transcripts, the data themes were formulated around the objectives of the study. The first author coded the data while the co-authors commented on the codes leading to continuous revisions of the coding process.

Data analysis followed the concept of thematic content analysis, which is defined as bringing all data together, comparing and discussing related themes and examining their relationship within individuals and between groups (Webb and Kevern 2008). Braun and Clarke (2006) simply define it as a way of sorting, identifying, analysing, and reporting data patterns called themes within a data set. The whole process involves reading and re-reading through text to identify keywords, terms, or ideas that repeat in the transcripts. The fragments of words or ideas which are meaningless if viewed alone were grouped together into a single theme (Aronson 1994). Boyatzis (cited in Fereday and Muir-Cochrane 2008: 83) argues that a theme, "at minimum describes and organises the possible observations and at maximum interprets aspects of the phenomenon". The organisation and reporting of data followed the process of decontextualisation and recontextualisation of the text. By decontextualisation the researcher lifted out parts of the transcripts (e.g. quotations) so that they may be closely analysed together with other similar respondents' quotes or situations before this is recontextualised by ensuring these quotes and situations maintain their context from which they were collected thereby preventing reductionism. This maintains respondents' accounts of reality (Malterud 2001). To some extent, data analysis was influenced by our knowledge of the existing theories which influenced the
study of IPV more broadly and learning deductively from theory as neglect of theoretical underpinnings reduces the scientific quality of any analysis (Malterud 2001). However, thematic content analysis helped to draw on naturally occurring themes (Joffe 2011) that were evident in the data that were collected. The researcher therefore conducted a more inductive analysis, grounded in our data much more than relying on deductive learning. Although data analysis was done after collecting the data, it is important to note that some listening to FGDs soon after recording and thinking through the data was done to gain a better understanding for the following day's FGD, so as to revisit or clarify certain issues and confirm issues left hanging in the previous day.

Similarities and differences between separate groups of data that emerged were noted as they indicated areas of agreement and of potential conflict respectively (Fereday and Muir-Cochrane 2008). This saw the clustering of similar information in each theme with some differences recognised by women in different circumstances. For example, those in their early stages of pregnancy reported less or different sexual violence than those in the last trimester as were differences between younger and elder women. Those in the third trimester reportedly experienced more coercion as they reported difficulties having sex due to various reasons as discussed later (Paper IV). New codes were formulated as themes continued to emerge during the process of re-reading the scripts. The meaning of the contents in each theme was also analysed in the interpretive phase (Fereday and Muir-Cochrane 2008) by connecting the units into an explanatory framework consistent with text. Each theme was then named with a phrase that summarises the content of the theme, sometimes quoting a catchy phrase from a respondent (See Paper IV). The major themes that emerged from the transcripts include the widespread coerced sexual intercourse especially during last pregnancy trimester; how midwives perceive and deal with abused pregnant women, the influence of social institutions on violence during pregnancy and how women are abused after HIV disclosure. These themes are presented in detail in the findings section.

3.7 Quantitative Survey

Both the literature search and the qualitative research were instrumental in the design of the questionnaire. For example, I learnt from the focus group discussions, as noted by Shumba (2001), that it is common practice to discipline children by beating them both at school by teachers and at home by parents. As a result our variable for measuring physical violence in childhood had to go beyond just beating to ask about “excessive” beating so as to distinguish violence from what would be considered “normal” beating aimed at disciplining.

3.7.1 A Cross-sectional Study

A cross sectional study design was used and postnatal women attending ANC at six primary care clinics in the high-density suburbs in Harare were recruited. The inclusion criteria were post natal women aged between 15 and 49 years, on their 10th day or 6th week postpartum visit. The study was both descriptive and analytical. The study described
the dynamics and prevalence of HIV, IPV and IPV after disclosure. The study analysed associations between IPV among pregnant women and pregnancy, HIV status, disclosure, HIV risk behaviours, gender inequity and male partner characteristics. Participants were interviewed to determine lifetime IPV, IPV during pregnancy, IPV after testing for HIV, child abuse, HIV risk behaviour, gender power and attitudes towards disclosing HIV status. The results of the cross sectional survey are presented in Papers II and III. The design of the quantitative study questionnaire benefitted from the results of the qualitative research.

3.7.2 Sampling Procedures

The sample size was calculated using Epi Info statistical package. The confidence level was set at 95%, a power of 80% and an Odds ratio (IPV and HIV seropositivity) of 1.48 from a related IPV study among pregnant women in Soweto, South Africa (Dunkle, Jewkes et al. 2004). The expected prevalence of IPV in the non-abused group was 8.3% (CSO and Macro 2007) and the expected IPV frequency in the abused group was 11.8%. The calculated sample size was 2100. The recruitment of participants was based on availability with busier clinics having more participants recruited than less busy clinics as sometimes research assistants from less busy clinics were moved to busier clinics. The busier clinics opened more days than the less busy clinics especially for 10 days post-delivery child care sessions resulting in more participants being recruited from busier clinics than the less busy clinics. As a result, the recruitment of participants proportionally matched facility size giving a stratified sample.

The six public health facilities that offer ANC services were purposively chosen because of their longstanding relationship with the local university medical teaching programme. The clinics represent the low-income clinics in Harare, they share the same characteristics such as almost similar volume of patients, social environment and being managed by city health department as well as working with a local university as university teaching centres. Proximity of clinics to each other was also considered to facilitate fieldwork logistics. All eligible postnatal women were recruited until the required number of participants was reached. Inviting all eligible women helped to minimise selection bias. Recruitment and interviewing took four months between May and September 2011.

3.7.3 Questionnaire Design

The WHO (2005) questionnaire for researching violence against women and girls and the Sexual Risk Behaviour Questionnaire (SRBQ) (Gilbert, El-Bassel et al. 2007) to measure violence and sexual behaviour respectively were adapted for our study respectively. The combined questionnaire (Appendix K) was cross-culturally validated at one clinic following the qualitative research with pregnant and postnatal women at six clinics. Since the WHO questionnaire was designed to measure violence in a general population, the adaptation process added a time reference to abuse questions so that it referred to abuse during pregnancy.

The WHO questionnaire in this study enabled us to make comparisons with data from other countries that used the same instruments. The resultant questionnaire contained questions
addressing the following subjects: socio-economic and demographic characteristics of the participants, history of violence (child violence, forced sexual debut, ever experienced violence in adulthood), acts of IPV, partners’ relationships, HIV risk behaviours, HIV testing and status disclosure, reproductive health issues, and pregnancy decisions and access to antenatal care during pregnancy. IPV questions were phrased in a behaviour format to avoid respondents identifying themselves as abused or battered (Garcia-Moreno, Jansen et al. 2006) and to encourage greater disclosure, since much abuse among the Shona people of Zimbabwe is regarded as chastisement and discipline (Schmidt 1992, Hindin 2003). The questionnaire was translated to Shona and back-translated into English to ascertain accuracy, cultural acceptability and cognitive understanding. It was administered in the first language of the respondent (Shona). To check data quality the questionnaire contained two crucial questions, one of physical violence and another of sexual violence that requires the same type of information in different positions in the questionnaire (Fisher and Foreit 2002). This helps to check the consistency of the response to establish the reliability of the data being collected. There were insignificant differences (p>0.1) in the responses to the two questions. The questionnaire was pretested with 60 pregnant women attending ANC at one of the health facilities in our study. In this one day exercise, the validity and reliability of the research tool were checked. No major changes were therefore made to the questionnaires and as a result the pre-test completed questionnaires were included in the study. Questions’ directness, clarity, average time needed to complete the questionnaire, logistical and ethical issues were assessed in the pre-test.

3.7.4 Variables and Measurements

a. Intimate Partner Violence (IPV)

The questionnaire contained physical, sexual and emotional IPV questions (See Appendix J). Each form of violence contained a set of questions that were used to measure different acts of that form of violence perpetrated on the woman by a partner. If the respondent’s response was positive we sought to measure past adult IPV focusing on the last 12 months before the respondent became pregnant using the question: “Has this happened during the 12 months before the pregnancy?” (See Appendix J – sub-question/Column B in questions 606-608). Abuse during pregnancy was measured using the question, “Has this happened during the most recent pregnancy?” (See Appendix J – sub-question/Column “C” in questions 606-608). The questionnaire also measured the prevalence of IPV after one had disclosed her HIV test result by asking if any of the acts reported had taken place during the period after she informed her partner about her HIV status. The following follow up question was used: “Has this happened after you disclosed your HIV test result to your partner during pregnancy?” (See Appendix J – sub-question/Column D in questions 606-608). All these questions carried Yes or No responses which the interviewers ticked. Yes was coded 1 while No was coded 0. Frequency of partner violence during pregnancy was measured. The following follow up question was asked: “During pregnancy would you say that this has happened once, twice or thrice/more?” (See Appendix J – sub-question/Column E in questions 606-609) Interviewers would tick 1, 2 or 3+ depending on the respondent’s
response. We also asked if a woman was ever injured by her partner before. This variable established physical harm that the partner experienced and helps to show the severity of the violence experienced while violence in general is just abuse that may or may not lead to injury or harm.

b. *Childhood Abuse*
Childhood abuse was categorised into physical abuse and sexual abuse. Physical abuse was measured using the question, “Before the age of 15 years, has anyone ever excessively beaten or physically mistreated you in any way?” Respondents were asked to answer Yes if it was positive and No if it was not in the affirmative. Sexual abuse was assessed using the following question, “Before the age of 15 years, has anyone ever forced you to have sex or to perform a sexual act or ever touched you sexually when you did not want to?” Follow up questions and coding was similar to those in sexual violence.

c. *Gender Equity Attitudes*
We measured attitudes towards gender equity using the WHO (2005) questionnaire. The questions asked focused on whether they justified wife beating in each of the six situations presented. Attitude towards sexual abuse questions asked a woman if a married woman may and can refuse sex in each of the six situations presented. Partner controlling behaviours were measured using six questions and they directly related to a woman’s partner.

d. *Risky Sexual Practices*
We measured sexual risk practices using questions drawn from the Sexual Risk Behaviour Questionnaire developed in the United States (Gilbert, El-Bassel *et al.* 2007) and repeated in South Africa (Dunkle, Jewkes *et al.* 2004). Altogether there were 13 sexual risk categories. The questionnaire asked a respondent’s number of lifetime sexual partners and if the respondent engaged in risky sexual activities (anal sex, sex with partners who inject drugs, partners who have had STIs). Respondents were asked if ever they contracted an STI and also used their HIV status as a proxy for sexual risk. Forced first sexual intercourse was assessed by asking whether the woman was willing or not when she had sex for the first time. Transactional sex was measured using three questions from previous South African studies (Dunkle, Jewkes *et al.* 2004, Dunkle, Jewkes *et al.* 2007) that asked if a respondent had ever stayed with a partner longer than she wanted to in order to gain materially (cash or kind). The second question asked if she had ever had a relationship with a casual partner for material gain while the third question assessed if a respondent had ever had sexual relations with a once-off partner for material gain. Things that we asked if she ever transacted in order to receive include those that she could not afford herself, accommodation, food, school children needs, raising children, bills or social status.
e. Alcohol and Drug Use

Based on large variations in the measurement of alcohol use as found in the systematic review that I conducted, the study questionnaire included two crucial measures of alcohol abuse, frequency and problem drinking during pregnancy, in addition to whether a woman or her partner used alcohol or not. To measure the respondent’s frequency of alcohol use, we asked if a respondent took alcohol nearly every day; up to twice weekly; up to thrice a month or less than once a month. The questionnaire measured the partner’s problem drinking by asking if he faced the problems because of their use of alcohol: money, health, conflict in the family, problems with authorities such as bar owner or police. Questions on whether the respondent or partner ever abused drugs were also asked.

f. Disclosure of HIV Status

Disclosure was defined as informing the partner the HIV results from recent antenatal HIV tests. Women were asked if they disclosed their HIV status to their partners. The questionnaire also assessed how long it took to disclose their status to their partners. We also asked women to report the reactions of their partners after they disclosed their HIV status. The questions had various responses, both positive (such as happy, supportive) and negative (such as sexual, emotional, and physical abuse). Information from this question helped to verify the use of violence after disclosure.

3.7.5 Conducting the Interviews

Six female interviewers were recruited and trained for seven days to conduct fieldwork. The recruitment of interviewers considered applicants’ attitudes towards gender and the gender-based-violence issue in addition to their research work experience. The interviewers were recruited in line with the WHO (2001) guidelines and previous research in gender-based-violence (Jewkes, Dunkle et al. 2006). In addition, interviewers were young women between 25 and 30 years. Matching the age and sex of the participant and the interviewer helped to create an atmosphere of open discussion about sexual and violence issues (Jewkes, Dunkle et al. 2006). All interviewers had a degree in the social sciences or public health except one who did not have a degree but had been involved in similar research before. Most of the researchers had conducted or worked in positions or attachment positions in issues related to women’s health/welfare or gender. The training covered gender-based-violence, vicarious trauma, interviewing skills; and safety and ethical issues in gender-based-violence. It included a day of role play using the study questionnaire and a day of fieldwork at one of the clinics included in the study.

A limited number of interviewers helped to minimise observation errors. One interviewer per clinic was deployed. Interviewers were moved to other clinics if the flow of participants was low at their designated clinic. Our target population was post natal mothers attending post natal care at the clinics. The mothers were in two categories. Firstly, there were women who were bringing their children to the clinic for immunization and review on the 10th day after birth. Secondly, there were women who were coming for gynaecological
examination six weeks after birth. The first group visited the clinic on any of the clinic's scheduled four days of the week, while the second group visited the clinic on one day that each clinic reserved for them. Interviews took place in a private space, either in an office (depending on availability at the clinic or outside in the open space away from other people.

Women were recruited from the queue. Interviewers approached potential respondents on the queue and briefly introduced the study to them. In some cases after introducing the study to the clinic staff, the clinic staff usually informed the mothers about our study or gave us an opportunity to introduce the study to the mothers waiting their turn. After the introduction and invitation, mothers would take turns to visit the study office or our desk either before or after being served by the clinic nurses. If the approached woman expressed interest, she was invited to a private interview room where an information sheet was read to them in their local language and if they agreed to participate, they were asked to sign the consent form. Consent was also asked for access to their HIV test information kept in the clinic. To ensure anonymity, participants were assigned numbers during the interview which were used to link with their clinical records during the analysis of results. One-on-one interviews took place in a private room. Interviewers read out the questions to the participants who responded and the interviewers recorded their responses with ink on the printed questionnaire. In the case of women aged between 15 and 17 years inclusive, guardian consent was granted by the clinic's sister-in-charge before the woman signed the assent form as required by the Medical Research Council of Zimbabwe Ethics Committee.

The researcher provided overall logistic arrangements and daily supervision of fieldwork to ensure reliability and accuracy of data. Questionnaires were checked by the interviewer for completeness and correctness at the end of each interview before the participant left the health facility and at the end of each day’s work by the researcher upon submission. Participants were offered some refreshments during the interview session. Interviews lasted for an hour.

3.7.6 Review of Clinical Records

The primary reason for reviewing the ante natal clinic records was to collect HIV status data. Access to the records was requested and obtained from the respondents and clinic staff. The researcher took this responsibility to ensure the confidentiality of HIV result. The ANC clinic records of study participants were reviewed using the clinic record number as the way to identify the records. This information was later merged with the data of the questionnaire and applied in the analysis to assess the associations between IPV and HIV during pregnancy. The review also helped to check if any IPV was detected and recorded by health care staff on the mothers and documented in clinical records. This information helped to analyse the relationship between IPV and HIV during pregnancy. Reviewing was conducted in the clinic during clinic hours.
3.7.7 Analysis of Quantitative Survey Data

Data was entered using the Key Three data management software package. Validation of data entry was done by re-entering 10% of the data. As only minor errors were observed in a few entries, we did not re-enter all the data. The data were transferred to STATA version 11 for processing and analysis. After data cleaning and checking, frequencies and differences between groups were measured using the chi-square test at 95% confidence intervals and presented in two-by-two tables. Different forms of IPV and their prevalence were described with 95% confidence levels. For continuous variables such as age, the summary took the form of means with a 95% confidence interval and standard deviation as well as interquartile range. For binary variables, the summaries were presented as percentages with a 95% confidence interval. Bivariate relationships between IPV and other variables – socio-demographic, gender equity and sexual behaviours, HIV status - were then examined.

Previous studies on IPV assessed factors associated with IPV using just one act of violence (Yes/No response) which researchers are beginning to question its appropriateness in assessing effects of IPV on other factors. Due to the high prevalence of violence among women in the world, assessing violence as either abused or not becomes inadequate, as women who experience a minor abusive act only once will be classified together with women with multiple episodes of various violence types. Given this situation, the frequency of abuse may well distinguish women and associated factors. Andersson, Ho-Foster et al. (2007) and Dunkle, Jewkes et al. (2004) noted the unavailability of a standard measure of violence severity. In order to address this gap, a variable called severe violence, which considers multiple episodes of violence reported by a respondent, was derived. For the logistic regression methods in Paper II, severe violence was constructed out of the question that asked frequency of violence. Severe violence was calculated by adding up all the affirmative responses to each of the nine questions (physical = 6 and sexual = 3) and their frequencies (each question had once, twice and thrice plus). The maximum possible number of episodes of violence experienced was therefore 27. The range of episodes reported by our respondents was 0-22. The effect of different binary ranges was assessed. A binary variable was constructed with 0-5 episodes representing low violence and compared it to 6 or more episodes of violence in the analysis which had the best fit model and lowest log likelihood.

For Paper III the variable severe violence after HIV disclosure was constructed by adding all the acts of violence a respondent answered affirmatively to each of the 13 IPV questions (physical = 6 questions, emotional = 4 questions and sexual = 3 questions). Each respondent had therefore a possible 13 episodes of violence to report. Our variable severe violence had therefore 4 levels - no violence, one episode of violence, two episodes and lastly three/more episodes. A multiple ordered logistic regression model was constructed to assess factors associated with severe IPV after HIV disclosure. This helped to compare differential effects.

\[^{5}\text{No statistical measure was used to detect differences.}\]
of low frequency (fewer events/types of violence) versus high frequency (more types of violence). The association between HIV infection and negative reactions by partners after disclosure was found in a multiple regression model with partners’ reactions as a dependant variable, whilst controlling for past violence and socio-demographic factors (age, education, marital status).

In both papers multivariate logistic regression models were developed to assess associations between IPV and various factors including socio-demographic, HIV, gender equity, past abuse experiences, and sexual risk behaviours. The choice of variables for risk factor analysis was based on previous theoretical studies (Jewkes 2010) especially the ecological basis of risk factors (Heise 1998), and the qualitative research with women and midwives about local patterns and meanings of sexuality and violence in intimate partnerships. Candidate variables for the multiple regression model were first assessed through bivariate analysis. Those variables which were significantly associated with IPV at the 10% level were considered for the multiple regression model. Backward stepwise regression analysis was used by fitting candidate variables in different stages. Socio-demographic variables were fitted in the first stage and those variables which were not significant at the 10% level were removed, starting with one with the highest p-value, until a best fitted model with the lowest logistic regression model was achieved with the remaining significant variables. These factors were reported in the findings (Paper II and III). The models adjusted for known covariates and other variables that could lead to bias if they were not controlled, such as women’s age, education, time of interview, time of testing for HIV, interviewers and past experience of violence.
CHAPTER 4
FINDINGS

4.1 Summary of Findings

The major objective of the study was to assess the association between IPV and HIV during pregnancy. It estimated the prevalence of IPV during pregnancy and after disclosure of HIV status, and assessed factors associated with reporting IPV during pregnancy and after testing HIV positive. The study contextualized IPV during pregnancy in Africa by first reviewing literature and conducting meta-analysis of prevalence of IPV during pregnancy and risk factors for IPV in African studies. The study also explored pregnant women’s experiences of IPV during pregnancy and how IPV is perceived by health workers including how midwives respond to abused women during their contact with them in antenatal care. The study was done through a three phased mixed-methods research programme which involved conducting a systematic review and meta-analysis of African studies on IPV, a qualitative study of pregnant and postnatal women and midwives in antenatal care, and lastly a cross sectional survey of 2042 postnatal women in Harare, Zimbabwe.

Results from the systematic review show that of the 19 studies found on IPV during pregnancy in Africa, 13 reported prevalence of physical, sexual and emotional IPV during pregnancy and this ranges from 2% to 57% (n = 13 studies) with meta-analysis yielding an overall prevalence of 15.23% (95% CI: 14.38 to 16.08%). Some of the dynamics reported in the study include that IPV prevalence during pregnancy was lower than IPV in the last 12 months before pregnancy in four studies that had data on during and before pregnancy. Ten studies reported collecting various information on HIV status from respondents including HIV test results, of which five studies assessed the relationship between HIV and IPV, after adjusting for known confounders and covariates. These studies showed significant associations between HIV and IPV during pregnancy, with odd ratios ranging between 1.48 and 3.10. Seven studies showed nine strong associations between IPV during pregnancy and a history of violence; these associations were between IPV and ever experiencing child abuse, forced first sexual abuse and experiencing violence in the last 12 months. Five studies reported associations between a woman’s and a partner’s alcohol abuse and experiences of IPV (OR 2.89–11.60). Of these five, strong associations were observed between a partner’s alcohol abuse and two papers showed a woman’s increased chances of being abused during pregnancy if they used alcohol. Both partner’s and woman’s risky sexual behaviours were associated with experiencing IPV during pregnancy. Socio-demographics associated with experiencing IPV during pregnancy include woman’s low socio-economic status and young age.

Results from the cross sectional survey (N=2042) show that 63.1% respondents reported at least one occurrence of physical, sexual and/or emotional violence during pregnancy, 44% reported emotional abuse, 38.9% reported sexual violence, 15.9% physical violence, 46.2% physical and/or sexual violence. Nearly a third of the women (30.2%) reported high frequency of sexual violence (three or more episodes) while one in ten (10.1%) reported six or more episodes of physical and/or sexual violence during pregnancy.
We sought to measure rates of disclosure of HIV test results to a partner. 95.5% disclosed their HIV test results to their partners. Overall HIV prevalence was 15.3%, but the prevalence among women who did not disclose was more than double (35.2%, 95% CI 25.0-45.4) the rate among women who disclosed to their partners (14.3%, 95% CI 12.6-15.8). At least 3.5% of women who tested negative did not disclose, but 10.7% of those testing positive did not disclose. Some 40.5% of HIV positive women reported physical, sexual and/or emotional IPV after disclosure, compared to 31.5% of women disclosing HIV negative results. Factors associated with experiencing IPV and severe IPV during pregnancy and severe IPV after disclosing HIV status include young age, experiences of past violence (child abuse, forced first sexual intercourse, last 12 months abuse), gender inequalities (women endorsing sexual abuse, wife beating and partner controlling behaviours), quarrelling behaviour, heavy alcohol abuse, partner’s use of violence in the community, absence of social support, sexual risk factors (multiple sexual partnerships, testing positive to STI), and partner knowing own HIV status. Stronger associations were observed with severe IPV compared to IPV in general. Qualitative results show that women faced many challenges after HIV disclosure including their partner’s refusal to test for HIV or to disclose their results and yet perpetrated coerced sex to their partners. Respondents in FGDs reported that some men intentionally attempt to infect their partners after women tested HIV negative. This finding supports the quantitative finding that a great proportion of respondents who tested HIV negative also reported being abused by their partners.

Information from in-depth interviews with health providers validated women’s accounts of sexual and emotional violence being common, while reports of physical violence were rare during pregnancy and after HIV disclosure. Respondents in the focus group discussions reported that the church, health system and the extended family contributed to their abuse during pregnancy through various ways in which they emphasised women’s subordination to their partners. Male partner’s lack of or not wanting to understand the physical, sexual and emotional changes that faced women due to the pregnancy was another reason for conflicts and IPV during pregnancy and after HIV disclosure according to women in focus group discussions. Women reported that some of the abuse took place when the men were drunk.

The study also found that midwives were not knowledgeable, equipped and supported by the health system to recognise and address IPV in antenatal and postnatal care. Because midwives were not trained in gender-based-violence, they generally did not think IPV issues could be dealt with in their health care settings and reports of them unintentionally advising women to tolerate abuse were recorded. Opportunities to deal with violence in the health care system were lost when an unsustainable short term project led by a non-governmental organisation terminated its services without the health system supporting its continuity.
4.2 The Organisation of the Findings Section

The following chapters present the full results in the five sections as manuscripts already published, in press or under review. These five papers are referred to in the discussion by their Roman numerals (Paper I-V). Although the study was conducted starting with the systematic review, followed by the qualitative design and lastly the quantitative phase, the results are presented with the quantitative findings first. This arrangement of the results allows for better interpretation of the quantitative findings. All papers are included and reprinted with the copyright holders’ permission. The references for each manuscript are included in the overall bibliography of the thesis. The discussion follows after the presentation of the papers.

4.3 List of PhD Manuscripts


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Abstract

Background: Intimate partner violence (IPV) is very high in Africa. However, information obtained from the increasing number of African studies on IPV among pregnant women has not been systematically analyzed. This paper presents a systematic review summarising the evidence from African studies on IPV prevalence and risk factors among pregnant women.

Methods: A key-word defined search of various electronic databases, specific journals and reference lists on IPV prevalence and risk factors during pregnancy resulted in 19 peer-reviewed journal articles which matched our inclusion criteria. Quantitative studies reporting both IPV prevalence and risk factors were included. At least two reviewers assessed each paper for quality and content. We conducted meta-analysis of prevalence data and reported odds ratios of risk factors.

Results: The prevalence of IPV during pregnancy ranges from 2% to 57% (n = 13 studies) with meta-analysis yielding an overall prevalence of 15.23% (95% CI 14.38 to 16.08%). After adjustment for known confounders, five studies retained significant associations between HIV and IPV during pregnancy (OR 1.48–3.10). Five studies demonstrated strong evidence that a history of violence is significantly associated with IPV in pregnancy and alcohol abuse by a partner also increases a woman’s chances of being abused during pregnancy (OR 2.89–11.60). Other risk factors include risky sexual behaviours, low socioeconomic status and young age.

Conclusion: The prevalence of IPV among pregnant women in Africa is one of the highest reported globally. The major risk factors included HIV infection, history of violence and alcohol and drug use. This evidence points to the importance of further research to both better understand IPV during pregnancy and feed into interventions in reproductive health services to prevent and minimize the impact of such violence.


Introduction

Women of reproductive age are more vulnerable to abuse by intimate partners than by any other perpetrator [1]. Prevalence of Intimate Partner Violence (IPV) among pregnant women differs across populations globally with rates reported to range from 0.9 to 20.1% in a systematic review that included 13 studies conducted before 1996 [2]. A second review of 18 studies reported prevalence of physical violence against pregnant women ranging between 0.9% and 30% [3]. Only six studies were from developing countries (reporting a range from 1.3% to 12.6%) in which only one was from Africa. Whilst it can be argued that with the passage of time, more defined and comprehensive measures were used to measure violence more accurately and with greater disclosure, very broad prevalence ranges persist as reflected in the 2010 review [3] compared to the 1996 review [2]. The low rates of violence reported in studies from developing countries in the 2010 review cannot be interpreted without special focus on context and risk factors and that further inquiry focusing on Africa in particular is needed. In addition both reviews did not cover all African databases, journals and archives and these findings cannot be generalized to African populations given the socio-cultural, political, economic and gender power differences. More recent data from the World Health Organisation Multicounty study [4] reported prevalence estimates of between 1% and 28% for the ten participating countries with the highest prevalences reported from the two African countries: Ethiopia and Tanzania [5].

There are significant negative maternal and child health outcomes associated with violence against pregnant women which are directly linked to Millennium Development Goals (MDGs) number 4 and 5 to reduce child mortality and improve maternal health as well as MDG 3 to promote gender equality and
emancipation of women [6]. These negative health outcomes include pregnancy loss, preterm labour, pregnancy complications, hypertension, delivering low birth weight, physical injuries and stress [4,7]. IPV has also been reported as a contributing cause of maternal deaths [8] and there is therefore need to synthesize information on risk factors from studies on abused pregnant women to quantify the problem and inform responses. Such information can help to advocate health interventions such as screening pregnant women for IPV to contribute to safe motherhood and healthy babies.

Pregnant women are at a higher risk of experiencing gender-based violence because they are more likely to be in relationships compared to non-pregnant population [3]. In addition, their age (15–49 years old) has also been identified as a higher risk group for IPV. Analyzing the evidence from studies on this population is critical for interventions since pregnancy related services provide excellent opportunities to assess the extent to which women experience abuse by partners and grant opportunities to assist and support them – all which would contribute to the meeting of the MDGs.

Many of the risk factors for IPV during pregnancy have also been identified generally in IPV studies among women [9]. The socio-demographic risk factors reported by Taillieu and Brownridge [3] included being young or adolescent; single marital status; separated or divorced during pregnancy; belonging to ethnic minorities and low educational status. For example, less education may translate to limited opportunities and increases economic vulnerability leading to some women being abused by partners who may be economically more powerful than them. Adolescents who are usually less mature to handle relationships or marriages may also be economically vulnerable and at risk of submitting to male power and abuse. Other risk factors identified included increased substance and drug use [3,10] as intoxication may lead to irresponsible behaviour such as violence. Perpetrator characteristics associated with IPV during pregnancy include male controlling behavior and having economic power [11,12]. In Africa, feminization of poverty means that many poor women often rely on their partners for household maintenance and pregnancy care. Men exploit this economic vulnerability by abusing their partners. Pregnancy related factors found to be associated with experiencing IPV during pregnancy include unintended pregnancy, late entry into care and inadequate antenatal care [10,13]. Unintended and unplanned pregnancy is usually blamed on the female partner and could be punished by divorce or threats to divorce in some parts of Africa. Men fear responsibilities which go with a pregnancy and therefore less likely to sanction a pregnancy if they were not prepared for it [14]. This is possibly due to male domination and control of female partners which starts upon marriage when the control of female sexuality is transferred from the father to the husband which in many African traditional cultures is officialized by sending marriage payments [15]. The control of household income which usually rests with male partners may influence late or inadequate prenatal entry. Abuse in childhood has been found to be associated with IPV among women in general [16,17,18] but information among pregnant women remains to be reviewed.

There are increasing studies from Africa that report on the relationship between HIV infection and IPV [19,20,21,22]. In a review of literature on HIV and domestic violence, Kaye reported that violence against female partners increases when a female partner is known to be HIV positive [23]. Similarly, studies in Rwanda [24], Tanzania [25], and Kenya [1] have shown associations between HIV and IPV in a non-pregnant population; however a study in the USA had contrasting findings [26]. Potential ways in which HIV infection may be linked to intimate partner violence, based on studies mainly emerging from Africa include: physical vaginal trauma from forced sex; limited capability to negotiate safer sex due to partner violence or threat of it; violence following disclosure of a positive HIV result and perpetrators more likely to engage in risky sexual behavior [27].

Research Question

Despite the fact that violence against women is reported as amongst the highest and severest in Africa compared to other continents [4,29], evidence from a recent systematic review on domestic violence, which excluded studies among pregnant women, showed that relatively few studies and publications emerged from Africa compared to North America and Europe [29]. Amongst the 134 studies reviewed only 11% were conducted in Africa. Given the high prevalence of IPV in Africa and the increasing number of good scientific enquiry on violence against pregnant women in Africa, a systematic analysis would help to inform both research and action on the continent. The evidence from a systematic review could be used for development of policies for prevention of IPV, advocacy programmes for IPV in general and during pregnancy. At a service level it could influence health workers to screen pregnant women for IPV and lead to effective referrals and interventions.

Purpose of the review

The aim of this systematic review was to systematically sum up the evidence from original empirical research conducted in Africa on prevalence and risk factors for IPV among pregnant women. The review also assesses the quality of the studies on IPV.

Methods

Search strategy

Searching of electronic databases using ebscohost was the primary way for obtaining peer reviewed journal articles in this review. A search of the Medline, Google scholar, Pubmed, SocIndex, Academic Search Premier, Family and Society Studies Worldwide, PsycArticles, Women’s Studies International, Africa Wide Information databases was conducted to obtain articles on violence during the time of pregnancy. The search, which was conducted until January 2010, was restricted to articles published between January 2000 and January 2010 in all databases and journals searched. This period was chosen because studies only emerged from Africa from late 1990’s and no systematic review for this continent has been conducted. Separate searches were conducted using the following key words: intimate partner violence, gender-based violence, violence against women, pregnant women, spousal violence, domestic violence, abuse, violence in pregnancy, violence and antenatal care, Africa, prevalence, risk factors, associations. Reference lists of the articles being reviewed were checked and relevant articles included. An independent hand search was conducted on specific African journals. Full text of some articles that only showed abstracts in the electronic databases or journals searched were obtained by emailing authors of the papers. The articles were checked for duplications in the different databases searched.

Eligibility criteria

The eligibility criteria were: studies published between January 2000 and January 2010; articles based on original quantitative research results and conducted in any African country using any of the following study designs: cross sectional, cohort, case control, cross-sectional, case-control, cohort, longitudinal, qualitative, mixed methods.
randomized controlled trial; articles published in English; all studies had to be peer reviewed in academic journals; studies had to include pregnant women (or mothers attending postnatal care within two months of giving birth); the women had to be the primary source of information and lastly articles had to focus on prevalence of IPV (physical, sexual and emotional) and/or risk factors for IPV among pregnant abused women. Intimate partners included past and current spouses, boyfriends, fiancés, whether married, cohabiting or dating. From all the studies that were included for systematic review, only those that reported overall prevalence of IPV were included in meta-analysis.

Data collection process
Using a specially designed data extraction form, two reviewers independently extracted information from the papers. Data items included country, study design, sample size, response rate, target population, sampling method, tools used, case definition, interview type and outcomes from each study. Papers were examined to ensure that they do not display the same data set in different papers. If two articles were from the same data set but reporting on different variables both articles were considered. Where there was conflict in scoring between the reviewers, consensus was reached by three reviewers. Study authors were contacted in the case of unclear or missing data.

Quality of studies and risk of bias
In order to assess the quality of studies and risk of bias, criteria developed by Alhabib et al [29] (2009) was adapted and applied. The following criteria was used: 1) Specification of the target population; 2) use of adequate sampling methods (eg random sampling); 3) adequate sample size (at least 300 participants); 4) adequate response rate (≥80%); 5) measurement with valid, tested instrument [eg Conflict Tactics Scale 2 (CTS2) [30], Abuse Assessment Screen (AAS) [31]; 6) reporting confidence intervals or standard errors; 7) reported attempt to reduce observer or other forms of bias; 8) adjusted for confounding variables. Reviewers categorized instruments into CTS, AAS, the WHO questionnaire for measuring domestic violence against women [30] and lastly “own tool” where no known instrument was used. Where no values were provided in non-statistically significant relationships, we stated that the relationship was not statistically significant and that the p-value was not provided.

Data analysis
There were two stages of data analysis. Firstly, for the analysis of prevalence of IPV, we conducted a fixed effect meta-analysis using STATA 11 [32] statistical software and results were presented using forest plots with prevalences and 95% confidence intervals. Heterogeneity between studies was assessed by using the I-squared statistic [33] and by visually examining the forest plot for overlapping confidence intervals. As this revealed substantial heterogeneity, we decided not to use the pooled result from meta-analysis (except for the overall IPV during pregnancy) and results were described qualitatively. Second,ly, the analysis of risk factors for IPV involved tabulating and describing odds ratios or risk ratios with associated 95% confidence intervals and p-values. Meta-analysis of risk factors was not possible because the majority of the studies did not report sufficient data for meta-analysis to be performed.

Results
Description of studies: design, setting and population
A total of 131 abstracts were identified (see Appendix 1). After screening the abstracts 95 were excluded for not primarily focusing on Africa; research not original and absence of either risk factors or prevalence. A further screening of the remaining 36 papers resulted in further exclusion of another 17 papers because the estimates were not focusing on IPV during pregnancy. Nineteen papers were finally reviewed (see Table 1). Sixteen out of 19 studies employed interviewer administered questionnaires; two used a self administered questionnaire whilst in one study it was not clear how the instrument was administered. Seventeen studies were cross sectional and two used a cohort design. Seventeen were conducted in urban areas whilst two studies included recruitment from rural areas. Seventeen studies were conducted in a hospital/clinic setting with the majority of women visiting during the antenatal period (14 studies), two studies were conducted in the labour wards, two at the women’s own homes and two among women attending postnatal care clinics (some studies recruited from more than one setting).

Quality of studies and risk of bias
Table 2 shows the quality score ranking of studies. The majority (13 or 68%) of studies scored at least five out of the possible eight points whilst three (15.7%) studies scored less than half the possible scores and four (21%) scored half. Two quality measurements that had the least scores (scored less than half) were use of adequate sampling methods and use of validated instruments. The sample sizes in the studies reviewed ranged from 178 to 1393 participants and seventeen out of 19 studies interviewed between 178 and 612 participants. The total number of participants in this review was 6729. [NB. Two papers [40,41] reported from one data set and only the larger sample size was included here]. Eleven out of 19 studies (58%) reported a response rate of at least 80% (eight studies did not report response rates).

Forty-two percent of the studies employed some form of random or systematic sampling whilst the rest employed non-random sampling methods. Most (50%) studies used “own” questionnaires whilst 42% employed commonly used and validated instruments such as the AAS (three studies), WHO questionnaire (four studies) and CTS2 (one study). Fourteen studies reported confidence intervals or standard errors in their analysis of data whilst five presented frequencies only. Ten studies adjusted for different known confounders in their data analysis.

Prevalence of Intimate Partner Violence in Pregnancy in Africa
The overall IPV prevalence during pregnancy was reported in 13 studies (see Table 1). The prevalence ranged from 2.3% to 57.1%. Meta-analysis yielded an overall prevalence of 15.23% (95% CI: 14.38 to 16.08%). See Figure 1 for Forest Plot of Overall IPV Prevalence. There was high heterogeneity between studies (I-squared = 99.1%; p-value < 0.001). Most (9) of the studies reported prevalences between 27.7% and 51.1% whilst seven reported prevalences between 27.7% and 35%. Sexual violence in the six studies in which this data was clearly presented had a prevalence range of 2.7%–26.3%. Physical violence was reported in four studies and ranged from 22.5% to 49%. Emotional violence was recorded in three studies (24.8%, 41% and 49%).

Intimate Partner Violence in Pregnancy in Africa
Prevalence of Intimate Partner Violence in the past 12 months
Four studies reported an overall prevalence of IPV before pregnancy or in the last 12 months. The lowest prevalence reported in these studies was 14.2% whilst the highest prevalence was 43.4%. Prevalence of physical violence in the past 12 months was reported in four studies and ranged from 14% to 41%. See Table 1.

Prevalence of Intimate Partner Violence during pregnancy
The overall IPV prevalence during pregnancy was reported in 13 studies (see Table 1). The prevalence ranged from 2.3% to 57.1%. Meta-analysis yielded an overall prevalence of 15.23% (95% CI: 14.38 to 16.08%). See Figure 1 for Forest Plot of Overall IPV Prevalence. There was high heterogeneity between studies (I-squared = 99.1%; p-value < 0.001). Most (9) of the studies reported prevalences between 27.7% and 51.1% whilst seven reported prevalences between 27.7% and 35%. Sexual violence in the six studies in which this data was clearly presented had a prevalence range of 2.7%–26.3%. Physical violence was reported in four studies and ranged from 22.5% to 49%. Emotional violence was recorded in three studies (24.8%, 41% and 49%).
### Table 1. Studies reviewed, variables and measurements.

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<td><strong>Sampling</strong></td>
<td>NR</td>
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<td>NR</td>
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<td><strong>Interview type</strong></td>
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<td><strong>Assessed HIV?</strong></td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
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<td>Y</td>
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<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td><strong>Overall IPV past 12 months (before pregnancy)</strong></td>
<td>-</td>
<td>-</td>
<td>(71%)</td>
<td>before</td>
<td>HIV test</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>(43.4%)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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</tr>
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<td>sexual</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>9.7%</td>
<td>65%</td>
<td>-</td>
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<td>-</td>
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<td>physical</td>
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<td>-</td>
<td>-</td>
<td>25.8%</td>
<td>14%</td>
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<td>-</td>
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<tr>
<td>emotional</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>51%</td>
<td>51.9%</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<td>-</td>
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</tr>
<tr>
<td><strong>Overall IPV during pregnancy</strong></td>
<td>28.4%</td>
<td>31%</td>
<td>48.6%</td>
<td>28.7%</td>
<td>28%</td>
<td>8%</td>
<td>11.6%</td>
<td>28.3%</td>
<td>35%</td>
<td>27.7%</td>
<td>2.3%</td>
<td>57.1%</td>
<td>13.6%</td>
<td>-</td>
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</tr>
<tr>
<td>sexual</td>
<td>12.9%</td>
<td>15%</td>
<td>-</td>
<td>6.1%</td>
<td>-</td>
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<td>-</td>
<td>-</td>
</tr>
<tr>
<td>physical</td>
<td>-</td>
<td>36%</td>
<td>-</td>
<td>23.5%</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<td>-</td>
<td>-</td>
</tr>
<tr>
<td>emotional</td>
<td>-</td>
<td>49%</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<td>-</td>
<td>-</td>
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</tbody>
</table>

Key: R = Random; NR = Non Random; Y = Yes, N = No; WHO World Health Organization; CTS Conflict Tactics Scale; AA5 Abuse Assessment Screen; CS = Cross Section; CH = Cohort; intvw = Interviewer administered

*Includes all types of violence (physical, emotional, sexual).

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Risk Factors for Intimate Partner Violence

**Low level of education.** Only three studies reported strong positive associations between a woman’s low level of education and experiencing IPV, that is, Fawole et al [49] (OR 12.54), Hoque et al [35] (OR 7.59) and Umeora et al [51] (p=0.001, OR not stated) whilst in six studies the relationship did not reach statistical significance (p=0.31 in Ezechi et al [36,37]; p=0.145 in Kaye et al [50]; p=0.05 in Efrt and Salami [52]; p value was not stated in Olagbuji et al [46] and Ntaganira et al [44]).

**Low socio-economic status.** In Hoque et al’s [35] study it was noted that being unemployed was a risk factor for experiencing abuse (OR 3.57; 95% CI 1.83–6.98) and so was belonging to a low socioeconomic class in studies conducted by Ezechi et al [36] (p=0.000) and Umeora et al [51] (p=0.0037) and having less household decision-making power (p=0.009) in Kaye et al [48,50]. There was no difference in the experience of abuse between women who were unemployed and those who were employed in either skilled or informal sector (p=0.701) in Kaye et al [50].

**Young age.** Five studies reported on the relationship between age and experiences of abuse among pregnant women with three studies reporting significant associations [44,49,50] and two reporting no associations (p=0.45 in Ezechi et al [37], and p=0.11 in Ezechi et al [36]). Younger age such as being an adolescent compared to non-adolescent (over 20 years) were found to be associated with abuse (p=0.000) in Kaye et al [50] and Fawole...
et al [49] while in Ngatigirira et al [44] being a young adult (26–34 years) was associated with experiencing abuse compared to those aged between 18 and 25 years (OR 1.35).

**HIV Diagnosis.** Of the 19 studies reviewed 10 (52.6%) collected data on HIV prevalence or knowledge of serostatus among pregnant women. Table 3 shows the relationship between HIV and IPV. After adjustment for known confounders, five studies retained a positive association between HIV and IPV during pregnancy. These studies showed that being diagnosed for HIV or testing HIV positive increases pregnant women’s chances of being abused by a partner. The increase in likelihood of a HIV infection ranged from a minimum OR of 1.48 to a maximum OR of 3.1. Three studies did not find a significant association and two did not test/report findings on relationship between IPV and HIV.

**Sexual Risk factors.** In multiple variable logistic regression models, sexual risk factors positively associated with experiencing IPV include transactional sex and having more than 5 lifetime sexual partners (OR 1.53; 95% CI 1.15–2.20) [40]; having a partner with multiple sexual partners (OR 1.69; 95% CI 1.9–7.7) in Ngatigirira et al’s [42] and Karamagi et al’s [42] studies respectively and having sex with another man whilst in marriage (OR 2.8; 95% CI 1.0–7.7) in Karamagi et al’s study [42]. However, condom use by a partner was not significantly (OR 1.2, 95% CI 0.7–2.3) associated with IPV [42] (data not shown).

**History of violence.** There is strong evidence from seven studies that a history of abuse (defined as experiencing abuse before the age of 15, abuse in the past 12 months and abuse in lifetime) is significantly associated with IPV in pregnancy or just before pregnancy as shown on Table 4. Of these studies, only three showed observed statistical differences between history of violence and current violence during pregnancy (p<0.05). But did not show risk or odds ratios.

**Alcohol use.** Five studies examined the relationship between alcohol use and IPV and all of them found that alcohol use by a woman and/or partner whether heavily or occasionally is significantly associated with pregnancy-related abuse. See Table 5.

**Discussion**

The review found a wide range in the overall prevalence of IPV during pregnancy ranging from as low as 2% to as high as 57%. This wide range is somewhat similar to what was reported in Gazmararian et al’s review [2] and Taillieu and Brownridge [3] review (0.9–30%). Similarly, the WHO [28] Multicountry study that collected data from 10 countries reported IPV prevalence during at least one pregnancy ranging from 1% to 28%. The disparities in our review can be explained in two ways. Firstly this could be attributed to methodological differences across studies. The lower prevalence in some studies is very likely due to methodological limitations. For instance Fawole et al’s study [49] which reported the lowest rate (2.3%) excluded women who if included, could have contributed to a higher and more accurate prevalence. The authors mentioned that, “Women who expressed fear that granting the interviews may result in further violence were excluded from the interviews” [49] Although the number of women excluded for this reason was not mentioned it clearly shows that the excluded women resulted in underreporting and lower estimates. In addition, the study used own tool with few semi-structured questions. The author’s non-reporting of response rate was another limitation of the paper. It was this outlier during meta-analysis that contributed the most weighting (45%) (Figure 1) leading to higher heterogeneity. Other studies which reported lower prevalence (0.3%, 11.6%), used own tools or AAS in the case of Chandisarewa et al [39] and Gyuse and Usigh [45] respectively or tools with few items measuring violence (13.6%) in the case of Unne et al [51]. Taillieu and Brownridge [3] also concluded that methodological issues influenced disclosure. Such under-reporting rather than over-reporting has been identified in violence against women studies in general [53].

Secondly, despite the methodological limitations in a few studies, the great disparities could be showing real differences in levels of occurrences of violent acts in African regions and cultural groups. The fact that most of the studies (9 out of 15) show prevalences above 27% means that the prevalence of violence during pregnancy is very high in Africa. This is similar to trends of violence against women in the general population in Africa [5]. Such high prevalences could be a result of gender inequalities organized mostly around patriarchal lines in Africa [54]. However, qualitative studies are needed to explore such dynamics and disparities in prevalence figures in general and among pregnant women. Another possible explanation for the higher levels could be related to greater reporting of violence due to increased use of tested instruments. This was a recommendation from Gazmararian et al [2] that the use of validated instruments could result in more disclosure of violence.

Since most of the studies on violence against women are cross sectional in design, there is a dearth of literature on violence trends before pregnancy, during pregnancy trimesters and after preg-

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**Table 3. Relationship between HIV and IPV during pregnancy.**

<table>
<thead>
<tr>
<th>Author</th>
<th>Variable related to IPV</th>
<th>Measurement</th>
<th>HIV status check</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dunkle et al [40]</td>
<td>HIV positivity</td>
<td>p=0.002, OR 1.48 95% CI 1.15–1.89</td>
<td>Determine Rapid and Capillus tests</td>
</tr>
<tr>
<td>Ezeechi et al [2009]</td>
<td>HIV positivity</td>
<td>p=0.001, OR 3.1 99% CI 2.4–5.3</td>
<td>Laboratory HIV test for women and women’s report for spouses’ status</td>
</tr>
<tr>
<td>Hoque et al [2003]</td>
<td>HIV positivity</td>
<td>p=0.000 OR 2.93 95% CI 1.79–4.81</td>
<td>Self reported</td>
</tr>
<tr>
<td>Osagbui et al [2010]</td>
<td>HIV positivity</td>
<td>p=0.002, OR 2.81 95% CI 1.2–4.5</td>
<td>Self reported</td>
</tr>
<tr>
<td>Ngatigirira et al [2008]</td>
<td>HIV positivity</td>
<td>p=0.009 OR 2.38 95% CI 1.59–3.57</td>
<td>ANC clinic records</td>
</tr>
<tr>
<td>Ngatigirira et al [2009]</td>
<td>HIV positivity</td>
<td>p value not stated (non-significant) OR 1.06 95% CI 0.66–1.73</td>
<td>ANC records</td>
</tr>
<tr>
<td>Kaye et al [2006]</td>
<td>HIV positivity</td>
<td>p value not stated (non-significant)</td>
<td>Not reported</td>
</tr>
<tr>
<td>Karamagi et al [2006]</td>
<td>HIV test last pregnancy</td>
<td>p value not stated (non-significant) OR 1.8, 95% CI 0.6–5.3</td>
<td>Self reported</td>
</tr>
<tr>
<td>HIV talk with husband</td>
<td>p value not stated (non-significant) OR 1.6, 95% CI 1.0–2.6</td>
<td>Self reported</td>
<td></td>
</tr>
</tbody>
</table>

*Comparison group was non-abused women; p=p value; OR=Odds Ratio; CI=Confidence Interval.

doi:10.1371/journal.pone.0017591.t003
pregnancy and providing support to pregnant women. Intervention such as screening for IPV during HIV testing during research is crucial for the development of health services to understand the effect of disclosure of HIV status on IPV. Such intervention is being done before and after HIV testing in a pregnant population to see the proportion of pregnant women who were abused before HIV test. Chandisarewa et al. [39] showed that 8% were abused before HIV and 7% after testing for HIV but did not give a baseline figure to show the trend has been observed in other parts of the world [10,55]. This possibly shows the protective effect of pregnancy against IPV and requires further exploration to understand the socio-cultural factors that influence the decrease of abuse during pregnancy.

The absence of data on the association between HIV testing and abuse during pregnancy meant that conclusions could not be drawn. Only one study [36] demonstrated that; before testing for HIV the prevalence of IPV was 17% and after testing for HIV and disclosing their status 62.7% reported being abused by their partners. Chandisarewa et al [39] showed that 8% were abused after testing for HIV but did not give a baseline figure to show the proportion of pregnant women who were abused before HIV test. A larger cohort study will be needed to observe trends in IPV before and after HIV testing in a pregnant population to understand the decrease of IPV status on IPV. Such research is crucial for the development of health services intervention such as screening for IPV during HIV testing during pregnancy and providing support to pregnant women.

This review has shown that HIV diagnosis and seropositivity are positively associated with experiencing IPV during pregnancy. This was found in five studies and reflects what has been reported in the general population as well [20,25]. Evidence of the interconnections between HIV and IPV has been demonstrated by the IMAGE study [56] and Stepping Stones study [57] in South Africa where interventions in gender and IPV training reduced HIV sexual risk factors. This association with HIV status could be related to the increase in HIV screening which is almost becoming universal among pregnant women through the provider initiated HIV testing in most countries. All countries in which the studies in this review were conducted are in the Sub-Saharan region which records the highest prevalence of HIV among women of childbearing age in the world [58]. We need to understand how IPV status operates in a culture where female subordination is the norm and how together with other factors it increases pregnant women's risk for violence. It is clear from the study that abuse of alcohol or drugs by partner (or self) is a risk factor for being abused by a partner. Results in this review are consistent with results across the world [3] in that alcohol and drug abuse are significantly associated with partner violence. The higher odds ratios obtained in the studies reviewed on the relationship between alcohol or drug use and IPV could have been influenced by how the instruments were used to measure alcohol use. For example, in a study by Olagbui et al [46] which reported the highest odds ratios (OR 11.60; 95% CI 3.8–35.1) the question on alcohol abuse was too general; researchers asked if the respondent had taken “1 or more" of alcohol or drugs per week. This review includes studies that measured prevalence of violence both before and during pregnancy. Three of these studies show that prevalence of violence during pregnancy was lower than violence in the past 12 months or before pregnancy. Olagbui et al [46] reported 43.4% and 28.3% before and during pregnancy respectively, whilst Fawole et al [49] reported 14.2% and 2.3% before and during pregnancy respectively and Ezechi et al [37] reported 39.1% and 20.7% before and during pregnancy respectively (Table 1). The same trend has been observed in other parts of the world [10,25]. This possibly shows the protective effect of pregnancy against IPV and requires further exploration to understand the socio-cultural factors that influence the decrease of abuse during pregnancy.

### Table 4. Relationship between history of violence and IPV during pregnancy.

<table>
<thead>
<tr>
<th>Author</th>
<th>Variable related to IPV during pregnancy</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dunkle et al (2004) [40]</td>
<td>Child sexual abuse RR 2.43; 95% CI 1.93–3.06</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Forced first sexual intercourse RR 2.64; 95% CI 2.07–3.38</td>
<td></td>
</tr>
<tr>
<td>Kaye et al (2002)</td>
<td>Witnessing abuse in childhood p = 0.000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Physical abuse in childhood p = 0.023</td>
<td></td>
</tr>
<tr>
<td>Ntaganira et al (2008)</td>
<td>Abuse in childhood OR 2.69; 95% CI 1.69–4.29</td>
<td></td>
</tr>
<tr>
<td>Ntaganira et al (2009)</td>
<td>Any form of violence p = 0.0001</td>
<td></td>
</tr>
<tr>
<td>Olagbui et al (2010)</td>
<td>IPV 12 months before pregnancy p &lt; 0.0001; OR 274.34, 95% CI 66.4–1133.8</td>
<td></td>
</tr>
<tr>
<td>Karanagi et al (2006)</td>
<td>Sexual violence OR 3.7; 95% CI 2.1–6.6</td>
<td></td>
</tr>
<tr>
<td>Ezechi et al (2009)</td>
<td>Abuse before HIV test p = 0.003</td>
<td></td>
</tr>
</tbody>
</table>

*p = p value; CI = Confidence Interval; OR = Odds Ratio RR = Risk Ratio.

doi:10.1371/journal.pone.0017591.t004

### Table 5. Relationship between alcohol use and IPV during pregnancy.

<table>
<thead>
<tr>
<th>Author</th>
<th>Variable related to IPV during pregnancy</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dunkle et al 2004* [40]</td>
<td>Woman's alcohol/drug problem p = 0.0002 OR 4.59; 95% CI 2.54–8.30</td>
<td></td>
</tr>
<tr>
<td>Olagbui et al 2010</td>
<td>Woman regularly takes alcohol p &lt; 0.0001 OR 11.60; 95% CI 3.8–35.1</td>
<td></td>
</tr>
<tr>
<td>Ntaganira et al 2008</td>
<td>Partner heavily drinks alcohol p = 0.0001 OR 3.37; 95% CI 2.05–5.54</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Partner occasionally drinks alcohol OR 4.10 95% CI 2.48–6.77</td>
<td></td>
</tr>
<tr>
<td>Ntaganira et al 2009</td>
<td>Partner occasionally drinks alcohol OR 2.52 95% CI 1.35–4.71</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Partner heavily drinks alcohol OR 3.85; 95% CI 1.81–8.21</td>
<td></td>
</tr>
<tr>
<td>Fawole et al 2008*</td>
<td>Partner drinks alcohol p &lt; 0.001; OR 2.89, 95% CI 1.51–5.53</td>
<td></td>
</tr>
</tbody>
</table>

*p = p value; OR = Odds Ratio; CI = confidence Interval; *alcohol abuse was related to IPV 12 months before pregnancy.

doi:10.1371/journal.pone.0017591.t005

Intimate Partner Violence in Pregnancy in Africa
alcoholic drinks per month in the last 3 months” and this was coded regular alcohol use if a respondent answered affirmatively. This overestimated the strength of the relationship with partner violence. Whilst Ntanga et al [43,44] asked if a respondent’s partner used alcohol sometimes, frequently/always or never, Dunkle et al [45] asked if a respondent ever had a fight, accident, injury, causal sex, or got arrested after drinking to assess problem drinking. Whilst all the other studies assessed either frequency or effects of alcohol intake, Favole et al [49] only assessed whether partner or respondent took alcohol or not. This raises issues of measurement bias since alcohol intake was not clearly defined; respondents taking one drink were similarly considered with those who drank to intoxication and therefore possibly exaggerating the magnitude of association with IPV. There is need to use validated measures of alcohol abuse to avoid overestimating the strength of the relationship.

The review showed a strong relationship between a history of violence and current violence in pregnancy although the range and types of violence varied including child abuse and previous year experience of violence among pregnant women. Reviews elsewhere demonstrated that adult women (though not pregnant) with a history of childhood sexual abuse show stronger evidence of revictimization than non-abused women [16,17,10]. One explanation put forward is that when women are abused in childhood they learn that subordination to males and experiencing violence are part of being a woman. They become vulnerable and therefore depend on men [17]. This may hold true in the context of IPV during pregnancy when women are less able to economically protect themselves. Being younger and having low socio-economic status compared to their partners may also contribute to them being abused by their partners who are older and have economic power and security. Since low socio-economic status is linked with being abused, it would therefore imply that raising women’s income levels through access to and control of economic and financial resources could significantly lower their chances of being abused. In the IMAGE study in South Africa women who were economically empowered through credit extension and managing loans reported reduced risk of IPV [56].

Strengths and weaknesses

Most of the studies scored above average on the study quality score. The quality of the studies was increased by the fact that most controlled for confounding variables in the multivariate logistic analysis. However, sample sizes in the studies were generally low and the use of standardized and validated instruments was low. The review did not look at clinical outcomes of abused women during pregnancy. Such an analysis of clinical outcomes could help to further influence policies on screening and other interventions at the health system level. An analysis of some questions of violence in studies which used own tools shows some resemblance of the McFarlane et al.’s [31] Abuse Assessment Screen (AAS) which over the years has influenced clinical assessments and research in gynecological settings despite its limitations such as its short length, combined items for measuring physical and sexual violence, non-availability of any measure of emotional violence and its use of words such as “abuse” in asking violence questions instead of behavioral acts such as used in the WHO [28] questionnaire and the Conflict Tactics Scale 2 (CTS2) [30]. The comparison between the AAS and the CTS2 has been done elsewhere [59] and results show less reliability in the AAS.

Conclusion

This review contributes knowledge of prevalence of and risk factors for IPV during pregnancy in Africa and shows clear evidence that the prevalence of IPV is very high in pregnant women on the continent. The major risk factors for IPV are alcohol and drug use, sexual risk taking, HIV infection and a history of violence and points to the need for interventions with pregnant women as part of antenatal care. Such screening and programs should address both prevention of IPV and HIV since it essentially deals with similar women empowerment issues.

Supporting Information

Appendix S1 Flow Diagram

(DOCX)

Acknowledgments

We would like to thank colleagues at the School of Public Health of the University of the Western Cape and participants of the International AIDS Conference 2010 in Vienna, Austria for their useful comments.

Author Contributions

Conceived and designed the experiments: SS. Performed the experiments: SS AM. Analyzed the data: SS NA. Contributed reagents/materials/analysis tools: SS NA CZ MT AM. Wrote the manuscript: SS CZ MT NA AM.

References

Intimate Partner Violence in Pregnancy in Africa


Intimate partner violence during pregnancy in Zimbabwe: a cross-sectional study of prevalence, predictors and associations with HIV

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3 Department of Community Medicine, University of Zimbabwe, Harare, Zimbabwe
4 Women’s and Gender Studies, University of the Western Cape, Cape Town, South Africa
5 International Centre for Reproductive Health, Ghent University, Ghent, Belgium

Abstract

Objective To describe the occurrence, dynamics and predictors of intimate partner violence (IPV) during pregnancy, including links with HIV, in urban Zimbabwe.

Methods A cross-sectional survey of 2042 post-natal women aged 15–49 years was conducted in six public primary healthcare clinics in low-income urban Zimbabwe. An adapted WHO questionnaire was used to measure IPV. Multivariate logistic regression was used to assess factors associated with IPV and severe (six or more episodes) IPV during pregnancy.

Results 63.1% of respondents reported physical, emotional and/or sexual IPV during pregnancy: 46.2% reported physical and/or sexual violence, 38.9% sexual violence, 15.9% physical violence and 10% reported severe violence during pregnancy. Physical violence was less common during pregnancy than during the last 12 months before pregnancy (15.9% [95% CI 14.3–17.5] vs. 21.3% [95% confidence interval 19.5–23.1]). Reported rates of emotional (40.3% [95% CI 38.1–42.3] vs. 44.0% [95% CI 41.8–46.1]) and sexual violence (35.6% [95% CI 33.5–37.7] vs. 38.9% [95% CI 36.8–41.0]) were high during and before pregnancy. Associated factors were having a younger male partner, gender inequities, past abuse, problem drinking, partner control of woman’s reproductive health and risky sexual practices. HIV status was not associated with either IPV or severe IPV, but reporting a partner with a known HIV status was associated with a lower likelihood of severe abuse.

Conclusion The rates of IPV during pregnancy in Zimbabwe are among the highest ever reported globally. Primary prevention of violence during childhood through adolescence is urgently needed. Antenatal care may provide an opportunity for secondary prevention but this requires further work. The relationship between IPV and HIV is complex in contexts where both are endemic.

Keywords intimate partner violence, pregnancy, HIV, prevalence, risk factors, Zimbabwe

Introduction

Intimate partner violence (IPV) is a serious public health and human rights problem across the globe with negative impacts on women’s and child health as well as high use of health services (Campbell 2002; García-Moreno et al. 2005). IPV during pregnancy increases women’s vulnerability to ill health both to herself and to her unborn child, in addition to the changes in physical, social, sexual and economic circumstances during pregnancy (Heise et al. 2002; Shah & Shah 2010). The WHO multicountry study on violence and women’s health found 1–28% women reporting violence during pregnancy across 10 countries (García-Moreno et al. 2005). A more recent systematic review of the prevalence of IPV during pregnancy in Africa found a wider range of between 2.3% and 57.1% women reporting such violence (Shamu et al. 2011). Gender-based violence including IPV is considered a structural driver of HIV (Jewkes et al. 2006a,b; Auerbach et al. 2011) but some studies show insignificant associations between IPV and HIV (Nyamayemombe et al. 2010; Hallett et al. 2006).

Two systematic reviews of risk factors associated with IPV during pregnancy found young age, poverty, marital status, past exposure to violence (childhood sexual abuse) and alcohol abuse as consistent risk factors across studies.
Intimate partner violence during pregnancy

(Tailieu & Brownridge 2010; Shamu et al. 2011). Sexual risk behaviours and HIV-positive status were associated with IPV in some studies but not others (Campbell et al. 2008; Shamu et al. 2011). Similar risk factors have been reported in studies of IPV overall (Jewkes 2002; Jewkes et al. 2002; Abramsky et al. 2011). Perpetration studies have provided further evidence of the role of gender inequality and male controlling behaviours (Jewkes et al. 2006a,b, 2012). All these factors are critical for intervention, which has been a neglected research area. Jewkes’ (2010) conceptual framework, based on evidence across the world, postulates that gender-based violence and HIV risk both stem from gender inequity and also deepen gender power differentials. Male power dominance in relationships and recurring exercise of violence against partners teach women not to resist attempts to abuse women.

Three reviews of studies on IPV during pregnancy (Devries et al. 2010; Tailieu & Brownridge 2010; Shamu et al. 2011) showed significant diversity across studies both in methods and conceptualisation of IPV, resulting in wide ranges of reported prevalence rates. Variations in the time during pregnancy when the interviews were conducted affect prevalence reported – those conducted at the onset of pregnancy record lower prevalence (Johnson et al. 2003), whilst those conducted at the end of pregnancy or soon after delivery record higher prevalence (Farid et al. 2008). Some studies also interviewed women as long as 18 months (Guo et al. 2004) or even – in Demographic and Health Surveys (DHS) – 5 years after delivery, likely resulting in lower prevalence due to recall bias. There are also differences in the number of pregnancies in which IPV was measured: some studies measured IPV in one pregnancy; others referred to all pregnancies a woman had ever had in the case of the DHS (Devries et al. 2010), also influencing prevalence and comparability. Many studies use small sample sizes, especially those from Africa (Shamu et al. 2011). IPV has been operationalised in different ways, although studies are increasingly using common instruments (Rabin et al. 2009). In addition to methodological differences, different prevalence rates also reflect real, substantive differences between cultures (Shamu et al. 2011).

The antenatal and post-natal periods have been identified as windows of opportunity for identifying women who experience abuse for development of interventions. This is very relevant for Zimbabwe, where up to 91.4% pregnant women attend antenatal care clinics with similar high levels of use of health services in the post-partum period (Munjanja et al. 2009). The country has high coverage of antenatal and post-natal care despite the current political and economic problems. Only two studies on IPV have been conducted in Zimbabwe over the past two decades but neither focused on pregnancy (Watts et al. 1998; CSO and Macro 2007). Measuring prevalence of IPV during pregnancy helps us to understand IPV. Understanding the factors associated with IPV during pregnancy is necessary to plan prevention interventions with both men and women, as well as appropriate health sector interventions. In this article, we present the findings of a study reporting the prevalence of various forms of IPV including severity of the abuse throughout the pregnancy period as well as factors associated with IPV during pregnancy.

Methods

Cross-sectional study

A cross-sectional study of post-natal 15 to 49-year-old women attending either 10 days or 6 weeks post-natal clinics was conducted at six low-income urban clinics in Harare between May and September 2011. We calculated sample size (2024 participants) based on a South African study (Dunkle et al. 2004). Following the WHO (García-Moreno et al. 2005) guidelines, we recruited and trained female interviewers (six) for 7 days before conducting fieldwork. We conveniently recruited participants from the clinic queues and administered the questionnaire (face-to-face interviews) in Shona to all women until the required number was reached.

Data collection

We adapted the WHO multicountry study questionnaire (García-Moreno et al. 2005) to measure violence against women for the study. The adaptation included adding the pregnancy period to IPV questions and adding HIV-related factors to the questionnaire. The questionnaire covered socio-demographic characteristics, behaviours, reproductive health and sexual risk factors of women and their current or most recent partners. The choice of variables for risk factor analysis was based on previous theoretical studies (Jewkes 2010) especially the ecological basis of risk factors (Heise 1998), literature in Zimbabwe (Shumba 2001) and our formative qualitative research with women and midwives about local patterns and meanings of sexuality and violence, particularly in intimate partnerships (Shamu 2012). We tested the questionnaire among 60 post-natal women at a clinic, and the necessary adaptations were made.

Intimate partner violence was measured using six physical violence questions, three sexual violence questions and four questions for emotional violence. We also asked...
whether the violence was experienced in the year before her most recent pregnancy to measure past-year violence. Answering positive to one question in each of the specific types of violence was coded as that type of violence. To measure frequency and severity, we asked whether any of these acts happened once, twice, thrice or more during pregnancy and these were coded as low frequency (1–2 experiences) and high frequency (three or more experiences) during pregnancy.

We assessed whether a woman ever experienced physical and/or sexual abuse before age 15. The physical abuse question asked whether, before age 15, anyone ever excessively beat or physically mistreated her in any way. Child sexual abuse assessed whether anyone ever forced or raped her to have sex or to perform a sexual act or ever touched her sexually when she did not want to. Because it is socially acceptable in Zimbabwe for parents and teachers to beat a child to enforce discipline (Shumba 2001), questions were phrased using the term ‘excessive’ to identify abuse from culturally acceptable disciplinary measures. This also emerged during the pilot study. An experience of either physical and/or sexual or both was coded child abuse.

Respondents were asked whether their first sexual intercourse occurred when they were willing, tricked, persuaded, forced or raped. Our variable forced first sexual intercourse referred to respondents who reported non-consensual first sex.

Respondents’ and partners’ alcohol use during pregnancy and partner’s problem drinking during pregnancy were assessed by asking whether a woman ever had money problems or there were conflicts/violence in the house/with friends or authorities as a result of the partner’s use of alcohol (Dunkle et al. 2004).

We adapted concepts from three scales to measure gender equity in relationships (Garcia-Moreno et al. 2003; Jewkes et al. 2006a,b; Gilbert et al. 2007), specifically women’s attitudes towards wife-beating situations (six questions), sexual abuse situations (six) and partner controlling behaviours (six) with unstandardised Cronbach’s alpha for the three scales of 0.75, 0.69 and 0.60, respectively. The sexual abuse scale was dichotomised with zero representing endorsement of two or less sexual abuse attitudes, whilst one represented more than two sexual abuse attitudes. A three-level variable (none, 1–2 attitudes/behaviours and 3–6 attitudes/behaviours) was created for both wife-beating and controlling behaviours to measure the relative importance of fewer and more negative attitudes/behaviours on violence experiences whilst compared to none (Dunkle et al. 2004).

Reproductive health- and pregnancy-related questions comprised: women’s lifetime contraception use; number of pregnancies in lifetime; age at first pregnancy; women and partners’ willingness and decision-making to become pregnant (recent pregnancy) and use of antenatal care services during recent pregnancy.

Sexual risk practices
We sought and obtained respondents’ informed written consent to access their HIV test results from the antenatal clinic. HIV status was collected. The results were based on HIV diagnostic tests conducted at the clinics during antenatal care. The clinics used the Determine™ rapid test with positive results confirmed using Capillus, and the Western blot used to resolve any conflicts. We also asked respondents whether their partners knew their (own) HIV status.

We measured HIV risk practices using questions drawn from the Sexual Risk Behaviour Questionnaire tested in the United States (Gilbert et al. 2007) and repeated in South Africa (Dunkle et al. 2004; Jewkes et al. 2006a): ever treated for STI during most recent pregnancy; ever engaging in anal sex; ever having sex with partners who inject drugs; if partner ever had an STI and respondents’ ever engagement in transactional sex for material gain.

Ethics
The study followed the WHO guidelines for researching violence against women and girls. Ethical clearance was received from the Medical Research Council of Zimbabwe and the University of the Western Cape.

Data analysis
After data had been entered, a random 10% sample was checked for validation and minor discrepancies which did not require re-entry of all data set were fixed. Data were cleaned and prepared for analysis in Stata version 11 (StataCorp 2009). Prevalence using percentages and confidence intervals (CIs) of emotional, sexual and physical violence during pregnancy as well as prevalence of combined forms of violence such as physical and/or sexual violence and physical, sexual and/or emotional violence during pregnancy were calculated. Lifetime experiences and frequency of violence were calculated. Socio-demographic, behavioural, reproductive health and HIV risk characteristics of women and those of their partners were described by experience of violence during pregnancy using chi-square tests to determine differences between the groups. We summarised continuous variables using standard deviations. Our primary analysis was to determine factors associated with physical and/or sexual IPV
and severe physical and/or sexual IPV during pregnancy, and an exploratory analysis at univariate level was performed to identify factors for the building of the multivariate models. A multivariate logistic regression model was developed with candidate variables grouped into four clusters, and the model was built first with the demographic factors at the base adding the behavioural factors followed by the pregnancy factors and lastly adding the HIV-related factors.

We developed two models: one to determine factors associated with ever experiencing physical and/or sexual violence during recent pregnancy (vs. no violence) and a second to find the factors associated with severe physical and/or sexual violence during recent pregnancy defined as experiencing six or more episodes of physical and/or sexual violence during pregnancy (vs. five or fewer episodes).

We adjusted the models for known covariates, that is, those that could influence experience of violence (age, education, past violence, interviewer effects and time of interview) and tested for interactions. We used backward stepwise regression analysis by first fitting all candidate variables at each stage (e.g. fitting all socio-demographic variables in the first stage) and removing variables that were not significant at the 5% level, starting with one and the highest P-value until a best fitted model was achieved with the remaining significant variables.

**Results**

We approached 2101 women. 25 refused to participate, six were ill or incapacitated, and a further 28 incomplete questionnaires were removed from the analysis, giving a response rate of 97.1%. This analysis is based on the remaining 2042 women, of which 1136 (56.6%) were interviewed when attending the clinic on the tenth day after giving birth. 886 (43.4%) women were interviewed on their sixth week post-natal clinic visit. Respondents’ age ranged from 15 to 48 years with a mean of 26 years [standard deviation (SD) 5.71 years]; their partners’ mean age was 31.3 (SD: 6.49 years; range 18–68 years). Table 2 shows participants’ socio-demographic characteristics. More than nine in ten had at least 11 years of formal education. More than a third (35%) had been pregnant only once; more than half (53.4%) had a pregnancy before the age of 20.

Table 1 shows the prevalence of the various forms of violence measured. Overall, 63.1% reported physical, sexual and/or emotional violence. 44% women reported emotional abuse, 38.9% sexual violence and 15.9% physical violence during recent pregnancy. Nearly half (46.2%) reported physical and/or sexual violence. Nearly a third of the women (30.2%) reported severe sexual violence (three or more episodes), whilst one in ten (10.1%) reported six or more episodes of physical and/or sexual violence during pregnancy. The range of IPV episodes during pregnancy ranged from 0 to 22. Nearly one in two women (46.3%) reported physical and/or sexual abuse during the 12 months before pregnancy, and 15.5% reported their first sexual intercourse as forced raped. Two-thirds (65%) of the women had ever experienced physical and/or sexual IPV.

Table 2 shows significant differences found for partner variables with more violence reported if partners were younger, more educated, had other wives, had not paid a bride price and if they did not live with relatives. Significant differences were found for all variables on past

---

**Table 1** Prevalence and 95% confidence intervals of various forms of violence (N = 2042)

<table>
<thead>
<tr>
<th>Violence during pregnancy</th>
<th>n/N</th>
<th>% (95% confidence interval)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional violence</td>
<td>898/2042</td>
<td>44.0 (41.8–46.1)</td>
</tr>
<tr>
<td>Physical violence</td>
<td>325/2042</td>
<td>15.9 (14.3–17.5)</td>
</tr>
<tr>
<td>Sexual violence</td>
<td>794/2042</td>
<td>38.9 (36.8–41.0)</td>
</tr>
<tr>
<td>Physical and/or sexual</td>
<td>943/2042</td>
<td>46.2 (44.0–48.3)</td>
</tr>
<tr>
<td>physical violence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical, emotional</td>
<td>1289/2042</td>
<td>63.1 (61.0–65.2)</td>
</tr>
<tr>
<td>and/or sexual violence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High-frequency physical</td>
<td>134/2042</td>
<td>6.6 (5.5–7.6)</td>
</tr>
<tr>
<td>violence (3+ episodes)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High-frequency (3+)</td>
<td>617/2042</td>
<td>30.2 (28.2–32.2)</td>
</tr>
<tr>
<td>sexual violence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High-frequency (3+)</td>
<td>694/2042</td>
<td>34.0 (31.9–36.0)</td>
</tr>
<tr>
<td>physical and/or sexual</td>
<td></td>
<td></td>
</tr>
<tr>
<td>violence High-frequency</td>
<td>207/2042</td>
<td>10.1 (8.8–11.4)</td>
</tr>
<tr>
<td>(6+ episodes) physical</td>
<td></td>
<td></td>
</tr>
<tr>
<td>and/or sexual violence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Past emotional violence</td>
<td>822/2042</td>
<td>40.3 (38.1–42.3)</td>
</tr>
<tr>
<td>Past physical violence</td>
<td>435/2042</td>
<td>21.3 (19.5–23.1)</td>
</tr>
<tr>
<td>Past sexual violence</td>
<td>737/2042</td>
<td>35.6 (33.5–37.7)</td>
</tr>
<tr>
<td>Past physical and/sexual</td>
<td>945/2042</td>
<td>46.3 (44.1–48.4)</td>
</tr>
<tr>
<td>violence Past physical,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>sexual and/or emotional</td>
<td>1253/2042</td>
<td>61.3 (59.2–63.4)</td>
</tr>
<tr>
<td>violence Lifetime</td>
<td>1311/2042</td>
<td>64.2 (62.1–66.2)</td>
</tr>
<tr>
<td>emotional violence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lifetime physical violence</td>
<td>762/2042</td>
<td>37.3 (35.2–39.4)</td>
</tr>
<tr>
<td>Lifetime sexual violence</td>
<td>1054/2042</td>
<td>51.6 (49.4–53.8)</td>
</tr>
<tr>
<td>Lifetime physical</td>
<td>1327/2042</td>
<td>65.0 (62.9–67.1)</td>
</tr>
<tr>
<td>and/or sexual violence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lifetime physical, sexual</td>
<td>1625/2042</td>
<td>79.6 (77.8–81.3)</td>
</tr>
<tr>
<td>and/or emotional violence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use of force at first</td>
<td>315/2036</td>
<td>15.5 (13.9–17.0)</td>
</tr>
<tr>
<td>sexual intercourse</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
violence, gender equity and alcohol abuse during pregnancy (Table 3) except for the women’s sexual abuse attitudes ($P = 0.062$). Among the pregnancy-related factors (Table 4), more violence was reported if either the woman or her partner independently decided to become pregnant ($P < 0.0001$), if women were unwilling to become pregnant ($P < 0.0001$) and if partners prevented women from using contraception or visiting antenatal care ($P < 0.0001$). More violence was reported by respondents who reported having more than three lifetime sexual partners ($P = 0.028$), were treated for STI during the recent pregnancy ($P < 0.0001$), ever had transactional sex ($P < 0.0001$), were HIV positive ($P = 0.64$), had partners who tested STI positive and did not know their HIV status ($P < 0.0001$). More reproductive health and pregnancy-related factors were associated with physical and/or sexual violence but not severe violence during the pregnancy. Younger age at first pregnancy, woman and partner independently

### Table 2 Frequency for socio-demographic variables for women reporting violence during pregnancy and those not reporting violence during pregnancy ($N = 2042$)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Total (%)</th>
<th>No physical/sexual violence reported</th>
<th>Physical/sexual violence reported</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Woman’s age ($n = 2038$)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15-24 years</td>
<td>909 (44.6)</td>
<td>462 (42.1)</td>
<td>447 (47.5)</td>
<td>0.01</td>
</tr>
<tr>
<td>25-49 years</td>
<td>1129 (55.4)</td>
<td>635 (57.8)</td>
<td>494 (52.5)</td>
<td></td>
</tr>
<tr>
<td>Marital status ($n = 2041$)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>1800 (88.2)</td>
<td>985 (89.7)</td>
<td>815 (86.4)</td>
<td>0.02</td>
</tr>
<tr>
<td>Not married</td>
<td>241 (11.8)</td>
<td>113 (10.2)</td>
<td>128 (13.5)</td>
<td></td>
</tr>
<tr>
<td>Woman’s education ($n = 2037$)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary</td>
<td>148 (7.3)</td>
<td>69 (6.3)</td>
<td>79 (8.3)</td>
<td>0.07</td>
</tr>
<tr>
<td>Secondary and tertiary</td>
<td>1889 (92.7)</td>
<td>1026 (93.7)</td>
<td>863 (91.6)</td>
<td></td>
</tr>
<tr>
<td>Woman’s employment status ($n = 2027$)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employed</td>
<td>606 (29.9)</td>
<td>330 (30.2)</td>
<td>276 (29.4)</td>
<td>0.68</td>
</tr>
<tr>
<td>Unemployed</td>
<td>1421 (70.1)</td>
<td>760 (69.7)</td>
<td>661 (70.5)</td>
<td></td>
</tr>
<tr>
<td>Partner’s age ($n = 2034$)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-29 years</td>
<td>929 (45.7)</td>
<td>462 (42.3)</td>
<td>467 (49.6)</td>
<td>0.001</td>
</tr>
<tr>
<td>Over 30 years</td>
<td>1105 (54.3)</td>
<td>632 (57.7)</td>
<td>473 (50.3)</td>
<td></td>
</tr>
<tr>
<td>Partner’s education ($n = 2022$)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Up to secondary</td>
<td>1734 (85.8)</td>
<td>955 (87.9)</td>
<td>779 (82.3)</td>
<td>0.003</td>
</tr>
<tr>
<td>Tertiary</td>
<td>288 (14.2)</td>
<td>131 (12.0)</td>
<td>157 (16.7)</td>
<td></td>
</tr>
<tr>
<td>Partner has other wives ($n = 1982$)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>316 (15.9)</td>
<td>151 (14.0)</td>
<td>165 (18.2)</td>
<td>0.01</td>
</tr>
<tr>
<td>No</td>
<td>1666 (84.1)</td>
<td>927 (85.9)</td>
<td>739 (81.7)</td>
<td></td>
</tr>
<tr>
<td>Brideprice payment ($n = 1984$)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All</td>
<td>190 (9.6)</td>
<td>130 (12.1)</td>
<td>60 (6.6)</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Partially</td>
<td>1413 (71.3)</td>
<td>764 (71.2)</td>
<td>649 (71.4)</td>
<td></td>
</tr>
<tr>
<td>Nothing</td>
<td>379 (19.1)</td>
<td>179 (16.8)</td>
<td>200 (22.0)</td>
<td></td>
</tr>
<tr>
<td>Couple lived with partner’s parent/relative ($n = 1985$)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>1305 (65.7)</td>
<td>744 (69.0)</td>
<td>561 (61.8)</td>
<td>0.001</td>
</tr>
<tr>
<td>No</td>
<td>680 (34.3)</td>
<td>334 (30.9)</td>
<td>346 (38.1)</td>
<td></td>
</tr>
</tbody>
</table>

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wanting the pregnancy and women’s decision to become pregnant were associated with physical and/or sexual abuse. The only pregnancy and reproductive health-related factors associated with severe violence were partners preventing women from using contraception and attending antenatal care. HIV-related risk factors were only associated with severe violence (vs. less severe violence) and the only significant factor was partner’s knowledge of his HIV status, which was associated with lower likelihood of severe abuse.

**Discussion**

This is the first Zimbabwean study with a focus on IPV during pregnancy. The only two previous studies on prevalence of IPV during pregnancy were conducted in 1998 measur-
Table 4 Frequency of reproductive, pregnancy and HIV-related variables for women reporting violence during pregnancy and those not reporting violence during pregnancy

<table>
<thead>
<tr>
<th>Variable</th>
<th>Total (%)</th>
<th>No physical/sexual violence reported</th>
<th>Physical/sexual violence reported</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Age at first pregnancy (n = 2038)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Up to 19 years</td>
<td>950 (46.6)</td>
<td>493 (44.90)</td>
<td>457 (48.62)</td>
<td>0.094</td>
</tr>
<tr>
<td>20+ years</td>
<td>1088 (53.4)</td>
<td>605 (55.10)</td>
<td>483 (51.38)</td>
<td></td>
</tr>
<tr>
<td>No. of lifetime pregnancies (n = 2042)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-2 pregnancies</td>
<td>720 (35.3)</td>
<td>397 (36.12)</td>
<td>323 (34.25)</td>
<td>0.37</td>
</tr>
<tr>
<td>3-8 pregnancies</td>
<td>1322 (64.7)</td>
<td>702 (63.88)</td>
<td>620 (65.75)</td>
<td></td>
</tr>
<tr>
<td>Planning of most recent pregnancy (n = 2036)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Planned together</td>
<td>830 (40.8)</td>
<td>493 (45.02)</td>
<td>337 (35.81)</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Woman’s decision</td>
<td>157 (7.7)</td>
<td>76 (6.94)</td>
<td>81 (8.61)</td>
<td></td>
</tr>
<tr>
<td>Partner’s decision</td>
<td>488 (23.9)</td>
<td>240 (21.92)</td>
<td>248 (26.35)</td>
<td></td>
</tr>
<tr>
<td>Unplanned pregnancy</td>
<td>561 (27.6)</td>
<td>286 (26.12)</td>
<td>275 (29.22)</td>
<td></td>
</tr>
<tr>
<td>Woman wanted to become pregnant (n = 1994)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>1382 (67.8)</td>
<td>788 (71.83)</td>
<td>594 (63.06)</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>No</td>
<td>657 (32.2)</td>
<td>309 (28.17)</td>
<td>348 (36.94)</td>
<td></td>
</tr>
<tr>
<td>Partner wanted woman to become pregnant (n = 1967)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>1533 (76.5)</td>
<td>851 (78.00)</td>
<td>702 (74.76)</td>
<td>0.086</td>
</tr>
<tr>
<td>No</td>
<td>477 (23.5)</td>
<td>240 (22.00)</td>
<td>237 (25.24)</td>
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</tr>
<tr>
<td>Partner prevented woman from using contraception (n = 2032)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>128 (6.3)</td>
<td>35 (3.19)</td>
<td>93 (9.94)</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>No</td>
<td>1904 (93.7)</td>
<td>1061 (96.81)</td>
<td>843 (90.06)</td>
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</tr>
<tr>
<td>Partner prevented woman from visiting antenatal care (n = 2021)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>39 (1.9)</td>
<td>14 (1.29)</td>
<td>25 (2.68)</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>No</td>
<td>1737 (86.0)</td>
<td>971 (89.33)</td>
<td>766 (82.01)</td>
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<tr>
<td>Partner had no interest</td>
<td>245 (12.1)</td>
<td>102 (9.38)</td>
<td>143 (15.31)</td>
<td></td>
</tr>
<tr>
<td>HIV status (n = 2042)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive</td>
<td>299 (14.6)</td>
<td>156 (14.19)</td>
<td>143 (15.16)</td>
<td>0.64</td>
</tr>
<tr>
<td>Negative</td>
<td>1652 (80.9)</td>
<td>897 (81.62)</td>
<td>755 (80.06)</td>
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</tr>
<tr>
<td>Unknown/not tested</td>
<td>91 (4.5)</td>
<td>46 (4.19)</td>
<td>45 (4.77)</td>
<td></td>
</tr>
<tr>
<td>Total lifetime sexual partners (n = 2038)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1–2 partners</td>
<td>1920 (94.2)</td>
<td>1046 (95.26)</td>
<td>874 (92.98)</td>
<td>0.028</td>
</tr>
<tr>
<td>3+ partners</td>
<td>118 (5.8)</td>
<td>52 (4.74)</td>
<td>66 (7.02)</td>
<td></td>
</tr>
<tr>
<td>Treated for STI during pregnancy (n = 2031)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>131 (6.5)</td>
<td>51 (4.67)</td>
<td>80 (8.53)</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>No</td>
<td>1900 (93.5)</td>
<td>1042 (95.33)</td>
<td>858 (91.47)</td>
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</tr>
<tr>
<td>Transactional sex (n = 2036)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>318 (15.6)</td>
<td>131 (11.94)</td>
<td>187 (19.91)</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>No</td>
<td>1718 (84.4)</td>
<td>966 (88.06)</td>
<td>752 (80.09)</td>
<td></td>
</tr>
<tr>
<td>Partner ever treated for STI (n = 2030)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>120 (5.9)</td>
<td>45 (4.12)</td>
<td>75 (8.00)</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>No</td>
<td>1834 (90.3)</td>
<td>1016 (92.96)</td>
<td>818 (87.30)</td>
<td></td>
</tr>
<tr>
<td>Don’t know</td>
<td>76 (3.7)</td>
<td>32 (2.93)</td>
<td>44 (4.70)</td>
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</tr>
<tr>
<td>Ever had a partner who injects drugs (n = 2013)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>36 (1.8)</td>
<td>14 (1.29)</td>
<td>22 (2.38)</td>
<td>0.066</td>
</tr>
<tr>
<td>No</td>
<td>1977 (98.2)</td>
<td>1074 (98.71)</td>
<td>903 (97.62)</td>
<td></td>
</tr>
<tr>
<td>Partner knows own HIV status (n = 2029)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>1174 (57.9)</td>
<td>686 (62.88)</td>
<td>488 (52.03)</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>No</td>
<td>723 (35.6)</td>
<td>341 (31.26)</td>
<td>382 (40.72)</td>
<td></td>
</tr>
<tr>
<td>Don’t know</td>
<td>132 (6.5)</td>
<td>64 (5.87)</td>
<td>68 (7.45)</td>
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</tbody>
</table>
Table 5: Multiple logistic regression models showing factors associated with physical and sexual violence and those associated with severe physical and/or sexual violence after adjusting for age, education, interview time, interviewer and past exposure to violence

<table>
<thead>
<tr>
<th>Variable</th>
<th>Physical and/or sexual violence during pregnancy</th>
<th>Severe physical and/or sexual violence during pregnancy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Stage 1</td>
<td>Stage 2</td>
</tr>
<tr>
<td></td>
<td>AOR</td>
<td>LCI</td>
</tr>
<tr>
<td>Socio-demographic factors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partner was 30+ years (vs. &lt;30)</td>
<td>0.74</td>
<td>0.56</td>
</tr>
<tr>
<td>Partner has 2+ wives (vs. one)</td>
<td>1.41</td>
<td>1.06</td>
</tr>
<tr>
<td>Partial brideprice paid (vs. all)</td>
<td>1.35</td>
<td>0.92</td>
</tr>
<tr>
<td>No brideprice paid (vs. all)</td>
<td>1.63</td>
<td>1.06</td>
</tr>
<tr>
<td>Behavioural factors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child physical and/or sexual abuse (vs. no)</td>
<td>1.45</td>
<td>1.08</td>
</tr>
<tr>
<td>Forced first sexual intercourse (vs. willing first sex)</td>
<td>1.44</td>
<td>1.13</td>
</tr>
<tr>
<td>Woman used alcohol during pregnancy (vs. no alcohol)</td>
<td>2.26</td>
<td>1.41</td>
</tr>
<tr>
<td>Partner’s problem drinking during pregnancy (vs. no)</td>
<td>2.04</td>
<td>1.36</td>
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</table>

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<table>
<thead>
<tr>
<th>Variable</th>
<th>Physical and/or sexual violence during pregnancy</th>
<th>Severe physical and/or sexual violence during pregnancy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Stage 1 AOR LCI UCI</td>
<td>Stage 1 AOR LCI UCI</td>
</tr>
<tr>
<td></td>
<td>Stage 2 AOR LCI UCI</td>
<td>Stage 2 AOR LCI UCI</td>
</tr>
<tr>
<td></td>
<td>Stage 3 AOR LCI UCI</td>
<td>Stage 3 AOR LCI UCI</td>
</tr>
<tr>
<td></td>
<td>Stage 4 AOR LCI UCI</td>
<td>Stage 4 AOR LCI UCI</td>
</tr>
<tr>
<td>Endorsing 3–6 sexual abuse attitudes (vs. 0–2 attitudes)</td>
<td>1.32 1.03 1.69</td>
<td>1.25 0.84 1.88</td>
</tr>
<tr>
<td>Endorsing 1–2 wife-beating attitudes (vs. non-attitudes)</td>
<td></td>
<td>1.24 0.82 1.86</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.19 0.79 1.80</td>
</tr>
<tr>
<td>Endorsing 3–6 wife-beating attitudes</td>
<td>1.79 1.00 3.18</td>
<td>1.84 1.02 3.11</td>
</tr>
<tr>
<td>Experiencing 1–2 controlling behaviours (vs. none)</td>
<td>1.23 0.92 1.63</td>
<td>1.44 0.82 2.55</td>
</tr>
<tr>
<td>Experiencing 3–6 controlling behaviours (vs. none)</td>
<td>1.71 1.19 2.44</td>
<td>1.96 1.07 3.59</td>
</tr>
<tr>
<td>Quarrel sometimes (vs. rarely)</td>
<td>1.47 1.12 1.94</td>
<td>1.81 1.21 2.73</td>
</tr>
<tr>
<td>Quarrel often (vs. rarely)</td>
<td>1.63 0.82 3.23</td>
<td>5.60 2.88 10.89</td>
</tr>
<tr>
<td>Partner ever fought with another man (vs. no fighting)</td>
<td>1.67 1.21 2.3</td>
<td>1.84 1.21 2.80</td>
</tr>
<tr>
<td>Woman ever injured by partner (vs. not injured)</td>
<td>2.69 1.57 4.62</td>
<td>3.68 2.26 6.01</td>
</tr>
<tr>
<td>Variable</td>
<td>Physical and/or sexual violence during pregnancy</td>
<td>Severe physical and/or sexual violence during pregnancy</td>
</tr>
<tr>
<td>----------</td>
<td>--------------------------------------------------</td>
<td>------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>Stage 1</td>
<td>Stage 2</td>
</tr>
<tr>
<td>AOR</td>
<td>LCI</td>
<td>UCI</td>
</tr>
<tr>
<td>Pregnancy-related factors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Woman wanted to get pregnant (vs. not willing)</td>
<td>1.46</td>
<td>1.01</td>
</tr>
<tr>
<td>Partner wanted her to get pregnant (vs. partner not willing)</td>
<td>0.64</td>
<td>0.42</td>
</tr>
<tr>
<td>Planning of most recent pregnancy: both</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partner only decided</td>
<td>1.02</td>
<td>0.73</td>
</tr>
<tr>
<td>Woman only decided</td>
<td>1.73</td>
<td>1.06</td>
</tr>
<tr>
<td>Unplanned pregnancy</td>
<td>0.91</td>
<td>0.61</td>
</tr>
<tr>
<td>Less than 20 years at first pregnancy (vs. 20+ years)</td>
<td>0.77</td>
<td>0.60</td>
</tr>
<tr>
<td>Partner prevented woman from using contraception</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partner prevented woman from visiting antenatal care</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
ing violence in one region (Watts et al. 1998) and in 2005 when the violence module was added to the DHS (CSO and Macro 2007). Although direct comparisons cannot be made due to different study designs, these studies reported only physical IPV during pregnancy that was 8.3% (CSO and Macro 2007) and 9.9% (Watts et al. 1998), which are considerably lower than what we found (15.9%). Similarly, our study reported a prevalence of physical and/or sexual violence of 46.2%, which is much higher than 13.5% reported in a review based on data from 19 DHS and International Violence Against Women Surveys (Devries et al. 2010).

The higher rates reported could be because our study was clinic based, using a different sample from population studies, but more importantly, we referred to the most recent pregnancy, and interviews were conducted within 10 days to 6 weeks of giving birth, which potentially reduces recall bias. Previous studies in Zimbabwe measured violence in any pregnancy a woman ever had (Watts et al. 1998; CSO & Macro 2007). A similar difference between an antenatal-based study and a DHS in South Africa despite them having identical questions has been reported (Dunkle et al. 2004). The antenatal health setting in our study may also have allowed greater disclosure of violence compared to the home where the perpetrator may hinder disclosure (Covington et al. 2002; Dunkle et al. 2004; Alhabib et al. 2010). Much lower prevalence was also reported in a global review with between 1.3% and 12.6% of physical, sexual and/or emotional violence during pregnancy but up to 36% were reported in developing countries (Taillieu & Brownridge 2010) compared to our estimate of 63%. Very high gender inequalities reported in this study could be influencing higher IPV rates.

The higher prevalence of IPV reported in our study could have been due to this study measuring IPV that took place in the entire pregnancy period. Most other studies collected data in the 1st or 2nd trimester (Leung et al. 1999; Johnson et al. 2003; Fawole et al. 2008). The importance of including the full period of pregnancy was demonstrated to us during the formative qualitative study when reports of sexual and emotional violence during the third trimester were very prominent in women’s accounts of their experiences (Shamu et al. 2012).

The measurements of past IPV (12 months before pregnancy) allowed us to compare violence in pregnancy and outside pregnancy. We found no difference contrary to studies that reported more past physical and/or sexual violence before pregnancy than during pregnancy (Guo et al. 2004). Although physical violence decreased (from 21.3% [95% CI 19.5–23.1] to 15.9% [95% CI 14.3–17.3]), reports of emotional violence (40.3% [95% CI

<table>
<thead>
<tr>
<th>Variable</th>
<th>Physical and/or sexual violence during pregnancy</th>
<th>Severe physical and/or sexual violence during pregnancy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Stage 1 Stage 2 Stage 3 Stage 4</td>
<td>Stage 1 Stage 2 Stage 3 Stage 4</td>
</tr>
<tr>
<td></td>
<td>AOR LCI UCI AOR LCI UCI AOR LCI UCI AOR LCI UCI</td>
<td>AOR LCI UCI AOR LCI UCI AOR LCI UCI AOR LCI UCI</td>
</tr>
<tr>
<td>HIV risk factors</td>
<td>Partner knows own HIV status (vs. partner does not know)</td>
<td>0.62 0.42 0.93</td>
</tr>
</tbody>
</table>

AOR, adjusted odds ratio; LCI, lower confidence interval; UCI, upper confidence interval.

N = 2042.
38.1–42.3) to 44.0% [95% CI 41.8–46.1]) and sexual violence (35.6% [95% CI 33.5–37.7] to 38.9% [95% CI 36.8–41.0]) suggest increasing though not statistically significant trends; that pregnancy may be associated with increasing non-physical forms of violence. The lower rates of physical violence may be an indication of men reducing this type of abuse during pregnancy because of the value they place on the unborn child whilst forcing sex and emotional abuse are not perceived in the same way. Reasons for increased sexual violence during pregnancy – particularly in the last trimester – were reported in the formative study (Shamu et al. 2012), where women reported that men fail to understand the physical and emotional changes pregnancy brings about and wanted frequent sexual intercourse as before the pregnancy, whilst women were less willing to have sex, finding positions more difficult or uncomfortable. Such excuses were often not accepted or understood by their partners resulting in conflict and forced sex. These experiences confirm the continued male dominance, control and entitlement to sex that is still common in many African cultures and have been described as the extension of the transfer of a woman’s sexuality rights from her father to a husband through traditional marriage payments (Ansell 2001).

Socio-demographic and behavioural risk factors

Although our study was conducted in a poor community where most respondents were unemployed (70%) and economically dependent on their partners who were un/semi-skilled employees, which could have increased their likelihood of experiencing violence, none of the poverty indicators such as low education and unemployment were significantly associated with experiencing IPV during pregnancy. This is inconsistent with findings from studies conducted in similarly less industrialised, less educated and poor communities, which found lower socio-economic status as a risk factor for IPV in Peru (Perales et al. 2008), Pakistan (Farid et al. 2008) and among poor Black Americans (Shumway et al. 1999; Covington et al., 2002). The lack of an association with poverty indicators in our study may be a result of the endemic poverty in Zimbabwe and may also reflect the current economy and political crisis. It is also possible that the lack of variability in our measure of poverty resulted in an apparent lack of effect. Our sample reported high levels of formal education, suggesting that current poverty may not reflect multidimensional or lifetime deprivation. The only demographic factor associated with violence during pregnancy was partner’s age; younger men were more likely to abuse their partners, which is consistent with findings from IPV studies conducted in South Africa (Jewkes et al. 2002, 2006b). This association between young men and violence may be due to young men lacking experience in handling misunderstandings and conflicts in a marriage.

This study provides evidence on how unequal gender norms promote violence. We found all gender inequity factors (women’s sexual abuse attitudes, wife-beating attitudes and partner’s controlling behaviours) associated with both forms of IPV that we measured. The finding confirms what has been reported in studies performed with pregnant and non-pregnant women (Jewkes et al. 2002, 2006a,b; García-Moreno et al. 2005; Clark et al. 2009) as well as perpetration studies where men’s use of violence against partners was associated with greater gender inequality (Jewkes et al. 2011) and partner violence is part of a broader control of women by men (Dunkle et al. 2004). IPV could potentially alter gender norms (Jewkes 2010) and ultimately forcing abused women to endorse attitudes towards wife-beating, sexual abuse and controlling behaviours. An intervention to improve relationship communication has been developed and tested with a study in SA among young men and women showing a decrease in IPV (Jewkes et al. 2010). Continued development and testing of such interventions are urgently needed.

The explanation of why women under 20 years of age at first pregnancy were less likely to be abused may be further evidence of the role of gender inequality as these women may have learned to be submissive to their partners and may therefore avoid abuse by their compliance. The association between IPV and being in a polygamous relationship was previously reported in Zimbabwe (Nyamayemombe et al. 2010), and although this has not been explored and is not fully understood – economic demands of a pregnant wife could increase her vulnerability to violence by a husband. Violence between cowives because of competition for limited resources, including attention of the husband, has been anecdotally reported.

Our results suggest that abuse during pregnancy is not an isolated incident in a woman’s life but appears to be part of a lifetime process. The association with abuse before age 15, forced first sexual intercourse and ever being injured has been reported in both IPV during pregnancy studies (Ntiganirina et al. 2008) and general IPV studies (Jewkes et al. 2002) in Africa. Violence prevention interventions should start during childhood because targeting the pregnancy period is too late as women learn to accept violence as a means to punish misbehaviour from childhood (Dunkle et al. 2004). The frequency of abuse during pregnancy also indicates that violence is not a once-off event during the pregnancy with one in ten women experiencing more than six events during their
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pregnancy. We do not know of other studies that report frequency of violence during pregnancy. Such persistent violence may have chronic health problems to the woman and negative consequences to the unborn child.

It is a concern that alcohol use during pregnancy by the women and partners was found associated with abuse. This, however, has been reported in many studies of IPV during pregnancy (Dunkle et al. 2004; Favole et al. 2008; Ntaganira et al. 2008, 2009; Olagbui et al. 2010; Eaton et al. 2012). The relationship between IPV and alcohol use is complex because it can be bidirectional with alcohol drinking leading to IPV or IPV leading to alcohol drinking (Bacchus et al. 2006; Widom et al. 2006) or it may involve both partners (Pallitto & O’Campo 2004).

Pregnancy-related risk factors

Many studies in the past decade assessed the association between pregnancy intention or unplanned pregnancy and IPV during pregnancy without defining whose intention it was to become pregnant (Goodwin et al. 2000; Pallitto & O’Campo 2004; Silverman et al. 2007; Cripe et al. 2008; Fanslow et al. 2008). In our study, we analysed whose intention (both, woman’s, partner’s or unintended) it was to become pregnant as well as the willingness for the pregnancy. We found that if a woman decided on her own to become pregnant, she was at greater risk to experience IPV during the pregnancy. We also found that if the partner wanted her to become pregnant, she was protected from experiencing violence. It is possible that being victimised by a partner leads to a pervasive sense of ‘everyday violence’ that undermines women’s self-efficacy, which predisposes them to believe that they themselves desire children when in fact they are simply mirroring their abusive partners’ desires or leads to less reproductive control and unintended pregnancy (Tsai & Subramanian 2012). This relation between pregnancy decision-making and violence links to the central role male domination has in women’s sexuality and reproductive health issues as discussed earlier. The increase in vulnerability of women may be explained in Zimbabwean economic context where men’s decisions to have children are in conflict with men’s roles of being providers. Men’s traditional role of deciding how many children a couple could have including when to have another pregnancy could be related to the economic hardships facing people in Zimbabwe where men struggled to raise income for family upkeep during the time of study. The link between sexual and reproductive health and poverty has been reported in Zimbabwe in the context of HIV decline (Gregson et al. 2006; Hallett et al. 2006; Halperin et al. 2011) with men limiting their sexual partners as resources to provide for them diminished. Such control of decision-making in Zimbabwean households soon after marriage has been described (Matavire 2012), and the struggle to teach women about their reproductive health rights was recognised more than a decade ago (Njovana & Watts 1996). Abused pregnant women were more likely to report being stopped from using contraception before the pregnancy or prevented from accessing antenatal care, confirming the male domination in decisions of sexual and reproductive health.

Similar findings were reported in India (Koski et al. 2011), whilst two studies from the US reported several ways in which men exercise control over women’s reproductive health (Miller et al. 2010; Moore et al. 2010). However, further research is needed to help us understand the relationship between violence and reproductive health decision-making including specific factors such as type of contraception use. Continued effort is needed to target men in reproductive health programmes to ensure sharing of reproductive health decisions in programmes such as the low-cost antenatal visit-specific short educational interventions, which was able to reduce women’s odds of reporting reproductive coercion by 71% in the USA (Miller et al. 2011). Such interventions may be adapted in developing countries such as Zimbabwe to help women with abusive partners.

HIV and HIV-related risk factors

No HIV-related factors were found to be associated with both physical and/or sexual violence and severe physical and/or sexual violence except that a decrease in severe violence was associated with women’s partners knowing their own HIV status. This finding implies that if men know their status, they would treat their partners better. It might also mean that they had communicated about HIV and testing although our study did not explore this further. The lack of association between violence and HIV infection found in this study is not surprising and is consistent with recent findings from pooled analysis of ten low-middle income countries using DHS data (OR, 1.05; CI 0.90–1.22) as well as an analysis of individual countries data including Zimbabwe (0.97 CI, 0.83–1.15) that found no significant association except for a negative association for Haiti (OR, 0.45; CI 0.23–0.90) (Harling et al. 2010). In a similar analysis of risk factors associated with partner violence using DHS data from Zimbabwe, HIV-positive status was not associated with increased odds of experiencing violence (OR, 1.11; CI, 0.91–1.34) (Nyamayemombo et al. 2010). Similarly, a study based on DHS population data in Rwanda found that HIV was only associated with severe psychological violence but not
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with physical and/or sexual IPV (Kayihanda et al. 2012). Although we cannot directly compare these findings because these studies were not based on IPV during pregnancy and they analysed data from either currently married (Nyamayemombe et al. 2010) or ever married (Harling et al. 2010) women – excluding single women which our study included – they do provide insight on the general epidemiology and complicatedness of the intersections between IPV and HIV in Zimbabwe and across the globe. The lack of a significant relationship between HIV-related factors and violence or severe violence could also be explained by interactions with variables we did not measure. The high prevalence of IPV and HIV may also make the association difficult to find as the two are commonly present in the population. Also, whilst IPV was experienced during pregnancy, we do not know when women were infected by HIV, and therefore, longitudinal studies are best suited to explore the relationship between IPV and HIV status disclosure.

Limitations

The cross-sectional nature of the study limits causal inferences. We could not establish the direction of causality between IPV and unequal gender norms. However, as literature suggests, the bidirectional relationship between IPV and unequal gender norms helps us to understand that intervening at one level can alter the other in a positive way. Although the study was about violence during pregnancy, it is not representative of all pregnant women in Harare because 19.4% pregnant women would not visit the clinic postnatally (Munjanja et al. 2009). However, interviewing women post-natally gave us an opportunity to interview women who reported being stopped from visiting prenatal care whom we could have missed if we had done interviews during pregnancy. Although we interviewed women who attended the 10 days post-partum visit – a near representative sample of recently pregnant women – we still missed women who aborted, miscarried or were in other circumstances that prevented them from attending a post-natal clinic.

Conclusions

The high rates of IPV during pregnancy among post-natal attendees in this study are among the highest ever reported. The study found IPV to be associated with a range of behavioural and pregnancy-related factors but not associated with HIV infection and most demographic factors. Primary prevention interventions are needed in form of community educational campaigns to change gender inequitable norms, beliefs and practices. Lessons about changing gender inequitable beliefs can be learnt from successful interventions with both adults (Dunbar et al. 2010) and young people (Hallfors et al. 2011) in Zimbabwe. Secondary prevention mechanisms by midwives in antenatal and post-natal care settings should address IPV during pregnancy because these are unique opportunities to consistently contact women at risk.

Acknowledgements

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Intimate partner violence after disclosure of HIV test results among pregnant women in Harare, Zimbabwe

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Abstract

This study reports intimate partner violence (IPV) following disclosure of HIV test results by pregnant women. We interviewed 1951 postnatal women who tested positive and negative for HIV about IPV experiences following HIV test disclosure, using an adapted WHO questionnaire. Multivariate regression models assessed factors associated with IPV.

Over 93% (1817) disclosed the HIV results to their partners (96.5% HIV- vs. 89.3% HIV+, p<0.0001). Overall HIV prevalence was 15.3%, (95% CI: 13.7-16.9), 35.2% among non-disclosers and 14.3% among disclosers. Overall 32.8% reported IPV (40.5% HIV+; 31.5% HIV- women, p=0.004). HIV status was positively associated with IPV (partially adjusted OR: 1.88: (95% CI: 1.32-2.68)). HIV+ serostatus remained strongly associated with reporting negative reactions by partners immediately after disclosure (adjusted OR 5.83, 95% CI:4.31-7.80). Factors associated with overall IPV were gender inequity, past IPV, risky sexual behaviours and living with relatives. IPV after HIV disclosure in pregnancy is high but lower than and is strongly related with IPV before pregnancy. HIV+ status disclosure triggers negative partner reactions while disclosure itself increases IPV risk. Efforts to reduce such vulnerability are an imperative.
Introduction

HIV is an infectious disease and status disclosure to affected and potentially infected sexual partners is a central strategy in HIV prevention and treatment (1). Globally, encouraging HIV status disclosure dates back to the late 1980s, modelled on the public health practice of partner notification (2). The benefits of disclosure are well documented and include helping to motivate partners to seek HIV testing, reducing risky sexual behaviour and making informed and healthy choices to reduce HIV transmission (3). However, disclosure is a complex and a gendered phenomenon. In high prevalence settings women test disproportionately (4), often during pregnancy, and are expected to disclose to sexual partners. Given the relationship between intimate partner violence (IPV) and gender inequality (5, 6), disclosure may have unintended consequences such as the extension of IPV during pregnancy, particularly in relationships with previous abuse. Possible negative consequences after HIV disclosure were reported in Africa in the early 1990’s when antiretroviral drugs were not available in Africa (7). Disclosure is highly emotionally charged; more than simply conveying medical information to a partner, it raises questions of trust, loyalty and faithfulness (8). Disclosure is therefore much more difficult for women in relationships where decisions are male dominated.

Research on HIV disclosure has been uneven- both in time and geography. For example, several studies have been published in the early 2000’s and then little research until very recently. African studies on outcomes of disclosure have differing findings, with some reporting positive outcomes including being accepted, receiving social support including treatment access and adherence and increased opportunities for risk reduction, (6, 9), while others report negative outcomes such as stigma and discrimination (10, 11). Studies that assessed negative outcomes did not specifically focus on IPV. Gender inequality, social
demographics and HIV are important risk factors for IPV (12-14). However, our understanding of these factors in relation to IPV after disclosure is still limited.

A global review conducted by Maman and colleagues showed that although 26 out of 31 studies reported negative outcomes after disclosure, violence was not commonly reported but also not precisely measured (3). The only study conducted in Zimbabwe of outcomes of disclosure, on a non-random sample of postnatal women in an urban setting (n = 221), reported 8% of women experiencing physical violence after disclosure (16). Two reviews on disclosure rates and outcomes concluded that it was difficult to assess the extent of negative outcomes as there was often no data on the previous state of relationships (8, 11). This is particularly relevant for IPV since it is important to understand HIV disclosure and IPV, whether IPV after disclosure is an extension of previous violence or is specifically associated with the HIV test. A review of African studies revealed a decrease in violence during pregnancy by 10 % (13). However, this review did not assess the dynamics of violence after disclosure. This study will assess whether a decrease or increase happens after disclosure of violence. Studies often did not separate outcomes by HIV status and the few that did showed contrasting results (3, 9). HIV testing has become an integral part of ante-natal care in high HIV prevalence settings such as Zimbabwe. This paper presents prevalence of HIV disclosure - positive or negative results - to an intimate partner during pregnancy as well as factors associated with IPV after disclosure of HIV test results.

Women of childbearing age in Zimbabwe experience both high prevalence of violence and HIV. The Zimbabwe Demographic and Health Survey (15) found 40% women and a third (33%) of men justifying partner beating. It also found 43.4% women reporting being ever physically or sexually abused, with intimate partners perpetrating 75% of the physical violence and 82% of sexual violence. Only 4% women in Zimbabwe test for HIV before pregnancy while 65% of the pregnant women test for HIV through the voluntary counselling
and testing and a whopping 99.9% test through the provider-initiated HIV testing approach which is current government policy (16). Although women are encouraged to test with their partners during antenatal care, men rarely accompany their partners for HIV tests and antenatal care (17).

**Methods**

A cross sectional survey was conducted among women attending a 10-day or six-weeks postpartum clinic in six public clinics in low-income urban areas of Harare, Zimbabwe between May and September 2011. Women aged 15 to 49 queuing for postnatal care were invited for face-to-face interviews asking closed questions in the local language (Shona) by trained female fieldworkers in a private space. With their permission, participants’ HIV test results were obtained from antenatal clinic records. We did not get information on whether women tested with their partners although they were encouraged to do so by health workers. We approached 2101 women and interviewed 2042 (97% response rate). The overwhelming majority of women had tested for HIV and results were available for 95.5% (N=1951). Detailed methodology and overall findings including on IPV during pregnancy and HIV risk have been reported elsewhere (18).

Participants were asked whether and how soon they disclosed their test results to their partners, and about their partners’ immediate reactions after disclosure. This latter question had a wide range of response options including positive responses such as “he was happy” or “supportive” and negative responses such as threat to end relationship, blaming woman’s past sexual life, labelling her a prostitute, experiences of and threats of violence. We used an adapted WHO questionnaire on gender-based violence (19). Physical, sexual and emotional IPV were measured using six, three and four questions respectively and we further
specifically asked if these experiences followed disclosure of the HIV test result during the most recent pregnancy. The violence measure referred to the period after disclosure up to the end of the pregnancy. We measured IPV up to the end of the pregnancy so that we could achieve an equal comparison among our participants who had delivered their babies within 10 days to 6 weeks after delivery.

The study included variables found in research to be associated with IPV and HIV as well as potential confounders. Past IPV was measured by asking respondents about experiences of IPV in the 12 months before the pregnancy. Respondents were further asked about their experiences of physical and sexual abuse before age 15, risky sexual behaviour such as woman ever engaging in transactional sex, and partner’s history of sexually transmitted infections (STI) (whether partner tested positive to STI before). They were also asked about the number of pregnancies they ever had and whether they ever tested for HIV before the most recent HIV test in antenatal care. Male partner violent behaviours were assessed by asking the respondent if her partner ever fought with another man since she partnered with him. Partner controlling behaviour (Cronbach alpha 0.60) and sexual abuse attitudes (Cronbach alpha 0.69) were measured using six behaviours and attitudes respectively, as used in previous research (20). Binary variables were created with zero to two behaviours/attitudes described as none/low partner control/sex abuse attitude and 3-6 behaviours/attitudes representing high-level partner control/sexual abuse attitudes.

**Data Analysis**

Data were analysed using Stata version 12 (StataCorp 2009). Prevalence of HIV and IPV forms (physical, sexual, emotional and combined forms) were calculated. We also calculated the proportion of women who reported no previous abuse but reported abuse for the first time.
after disclosure. We assessed IPV and HIV status and constructed an ordered IPV variable, with never experienced physical, sexual or emotional abuse, a single type of IPV, two types and three or more types of violence and used this as the outcome in the multivariate analysis of factors associated with IPV after disclosure of HIV test results. After assessing candidate variables at the univariate level, a generalised ordered multiple, stepwise regression analysis was done adjusting for woman’s age, education, marital status, past violence, whether woman tested for HIV before, total number of previous pregnancies, time of testing for HIV and time of interview, the latter because some women tested in the first trimester while others in the last trimester thus affecting the duration of exposure and measurement of disclosure and violence after disclosure. The regression model compared the effect of medium (2 types) to higher (3 or more types) with no or lower (0-1 type) IPV. The generalized ordered logit/partial proportional odds model for ordinal dependent variables (21) was fitted with all variables using gologit2 command and we used the backward elimination approach to remove insignificant variables at the 10% level. The final model was the best fit model with the lowest log likelihood ratio. We tested the proportional odds or parallel-lines assumption using a Wald test which was insignificant (p=0.6872) showing no violation of the proportional odds / parallel lines assumption.

An additional logistic regression model was tested for the association between partner’s reaction after disclosure (0 = positive response, 1= negative response) and women’s HIV status, controlling for past violence and demographic factors (age, education and marital status).

Ethics approval was obtained from the Medical Research Council of Zimbabwe and the University of the Western Cape. Written informed consent and assent (for <18 y) was sought
and provided before interviewing. Women were provided with information about organisations that they could consult for counselling and support if needed. The study followed the WHO ethical guidelines for researching violence against women and girls (22).

Findings
Among the 1951 women included in the study, the majority disclosed their HIV test results (93.1%, N=1817) to their partners (Figure 1). 97.2% of the women reported disclosing their results within three days of receiving their results. Overall HIV prevalence was 15.3% (95% CI: 13.7-16.9) (Figure 1). HIV prevalence among women who did not disclose (35.2%, 95% CI: 25.0-45.4) was more than double that among women who disclosed to their partners (14.3%, 95% CI: 12.6-15.8). One in ten of the HIV positive women (10.7%) did not disclose compared to 3.5% of the HIV negative women (p<0.0001). Nearly one in four women (23.9%) reported a negative reaction by their partner immediately after disclosure, such as threats of or actual violence. More women experienced a negative reaction if they tested positive than if they tested negative (58.3% vs. 18.4% p<0.0001). See Figure 1. HIV positive women were nearly six times more likely to report a negative reaction from the partner compared to HIV negative women (OR: 5.83 95% CI: 4.31-7.90).

Overall, nearly a third (32.8%) of women who disclosed reported some form of abuse that took place any time between disclosure and delivery with higher rates among HIV positive women (40.5%) than HIV negative women (31.5%) (p=0.004) (Unadjusted OR: 1.48 CI: 1.13-1.94).

Over 60% of women reported at least one episode of physical, sexual or emotional IPV in the 12 months before pregnancy as presented in Table 1. IPV in the 12 months before the
pregnancy was higher than IPV after disclosure for all types of violence. Higher levels of sexual (22.6%) and emotional IPV (18%) than physical IPV (5.8%) were reported after disclosure. As noted above, HIV positive women were much more likely to report a negative reaction to disclosure. In addition, significant differences between women reporting and those not reporting IPV after disclosure by HIV status were found for most types of IPV after disclosure (See Table 1).

A total of 595 (32.8%) experienced at least one form of abuse after disclosure (N=1817). Of these, 68 (11.4%) women reported experiencing IPV for the first time only after disclosure and a significant proportion of them (22.1%) had tested HIV positive.

Table 2 shows the socio-demographic characteristics of the sample against frequency of IPV events after disclosing HIV test results. Significant differences were found for all variables except woman’s education, marital status, whether a woman ever tested for HIV in her life before testing during the recent pregnancy and number of pregnancies a woman has ever had.

Table 3 shows results from the ordered regression model. The odds of experiencing medium to high number of IPV acts after disclosure of HIV test result were higher in women who endorsed more sexual abuse attitudes, experienced more controlling behaviours from their partners, experienced IPV in the 12 months before pregnancy, had been injured by a partner before, were abused in childhood, or reported partners with histories of violence with other people. Women who ever had transactional sex, reported partners who ever tested positive for sexually transmitted infections (STI) or were stopped or prevented from accessing health care by their partners had higher odds of experiencing many acts of IPV after disclosure. However, women who reported that they were currently living with relatives or other members of their family or partner's family in the couple’s household had lower odds of reporting high frequency IPV post disclosure. A partially adjusted model that controlled for
demographic variables (woman’s age, education, marital status), research characteristics (time of HIV test and time of interviews) and violence in the last 12 months shows that IPV after disclosure was associated with HIV serostatus (AOR: 1.88, 1.32-2.68). However, this relationship disappears after adding the behavioural and sexual risk factors in the full model (AOR: 1.09, 0.78-1.52).

Discussion
To the best of our knowledge, this is the first study to systematically measure IPV after HIV disclosure to an intimate partner. Our study shows that women overwhelmingly disclosed HIV results to partners - the rate of 93% among pregnant women is amongst the highest reported globally. This study found a high prevalence of physical, sexual or emotional IPV before the pregnancy, after disclosure, as well as high rates of negative reactions from partners immediately after disclosure. It is important to reiterate that IPV after disclosure was high though lower than before pregnancy. It was not surprising that HIV positive women were less likely to disclose their results, but an unexpected finding was the high levels of violence reported irrespective of the HIV result possibly revealing that HIV disclosure adds violence risk to women.

Although only a small proportion of women did not disclose, the findings related to the differences in disclosure between HIV positive and negative women (Unadjusted Odds Ratio [UOR] 0.30, 0.19-0.48) is in agreement with previous studies (8, 9, 23) where women were less likely to disclose their results if they tested positive. This is similar to the outcome of two reviews where the fear of negative effects was identified as an important barrier to disclosure (8, 11). Similar reports were provided by women during the formative research for this study (17). Our sample had very high rates of past IPV which could also explain why HIV positive
women feared disclosing their results. Another possible explanation for the high levels of disclosure could be related to coercion. About two thirds of the women in a study in South Africa (24) and India (25) indicated that they were coerced to disclose or someone such as a nurse disclosed on their behalf. In our study women reported self-disclosure and we do not know if disclosure was facilitated or coerced by health workers.

We found very high rates of IPV after disclosure of a negative HIV test result. While some studies show that in serodiscordant couples where the male test was negative or unknown, IPV was more common (26), others did not find significant outcome differences between women who tested HIV positive and those who tested HIV negative (3, 9). Little is known about violence after disclosure of a negative test as most studies focus on HIV positive results.

Many IPV studies have demonstrated the links between gender inequality and experiences of IPV (5). Our results confirm that unequal gender power relations are a strong predictor of IPV after HIV disclosure. This is illustrated by the positive associations between IPV and higher levels of negative sexual abuse attitudes and male controlling behaviours, including how post natal women access health care. This may all help to explain why women testing negative were also abused. Control of women’s reproductive and sexual health decision making was found to be associated with IPV experiences during pregnancy in this study (18) and elsewhere (27). We conclude that the high levels of IPV reported in the study suggest that violence after disclosure is an extension of previous violence experienced by women, triggered in this instance by having tested for HIV – with the attendant implicit questions about trust and sexual fidelity. The high rates may simply suggest a high level of IPV in more patriarchal relationships where men adhere to more hegemonic masculine roles such
as controlling practices and believing they have a right to women’s bodies. In such relationships women are also more vulnerable to HIV infection, which could explain higher IPV during pregnancy among HIV+ women. However, our findings also show that a significant proportion of women who had never been abused before pregnancy first experienced abuse after disclosing their status and a significant proportion of them testing HIV positive. Although the sample was small, it helps to show the important contribution that disclosure has on women’s experience of violence.

With their focus primarily on HIV positive women, many studies reveal negative outcomes post-disclosure such as disputes, stigma, discrimination, separation, abandonment or being chased away (6, 10). However if violence was mentioned, systematic measurement was seldom used to define it and sexual and emotional violence are generally ignored (3). We sought to document both positive and negative reactions including contextually relevant definitions and careful measures of emotional, sexual and physical violence including threat to end the relationship, actually ending the relationship, threat to go out or actually going out with other women, asking about past sexual activities, talking about physical violence. These explicit measures found far higher rates (23.9%) of negative reactions than reported elsewhere (11).

The presence of other people in households may inhibit partner abuse of the woman. Our finding supports previous studies where the presence of other people to support the woman was associated with a decline in IPV (28, 29). The presence of relatives may also mean that they can physically or emotionally intervene to prevent abuse by the partner. However, further research is needed on the effect of couples living with relatives on violence.
Although HIV positivity was not associated with IPV after disclosure, HIV status was strongly associated with partner’s negative reaction immediately after disclosure. Similar findings of no association between HIV and violence have been reported elsewhere (18, 30). Risky sexual behaviours of both the woman (transactional sex) and her partner (STI positive test) were associated with IPV after disclosure. This link between risky sexual behaviours and IPV after disclosure adds to the literature on the overlaps of HIV and IPV risk factors (12). The links between violence, HIV, and "negativity" are complex - there was a strong association between HIV status and reported violence in the unadjusted analysis and partially adjusted model which disappeared after controlling for behavioural and sexual variables- but the association between serostatus and negative immediate reaction remains very strong. This shows the complexity of high risk of informing the partner. The strong association between HIV status and negative reaction helps us to further understand the difficulties that women face when disclosing HIV positive status. HIV testing and counselling programmes must find ways to minimise abuse immediately after disclosure and in the medium to long term. Special focus during counselling must be on enskilling women on how best to disclose to partners to minimise negative reactions and violence. Active involvement of the men in antenatal and postnatal care with their partners may help reduce difficulties associated with disclosure since both partners will receive their test results from the health worker together.

The study has limitations. Firstly, the study was cross sectional and we cannot draw causation based on its cross sectional nature. Although we asked women about abuse after disclosing HIV status, we could have been more specific on whether participants perceived the violence as directly related to the disclosure or whether violence is a normative part of their lives with their partner. Violence could also have been a result of merely testing for HIV without partner’s consent since 31.5% of participants who tested negative also reported abuse. There
could be other triggers of the violence but it is likely that most motivations are rooted in male
domination given normative gender roles and men’s belief that they have a right to discipline
women. Disclosure may have been one of many possible triggers given the high levels of
reported violence before the pregnancy. The HIV status of the male partners was also not
known, so we were unable to compare IPV by serostatus concordancy or discordancy.
Another limitation is of possible confounding in the measurement of IPV after disclosure
because violence after disclosure may be closely linked to the generally high levels of
violence reported in the study (18). However, the assessment of partner’s reaction to
disclosure also showed higher levels of negative reaction which is strongly associated with
HIV status, suggesting a strong link between HIV, disclosure and violence. This could also
suggest a strong link between HIV, gender inequality and violence, making negative
reactions to disclosure the outcome of underlying higher gender inequalities in relationships
where women are found HIV+. Assessing IPV in postnatal care excludes women who did
not attend postnatal care but were otherwise abused during pregnancy. This means the results
may not be generalised to women other than those attending postnatal care.

Conclusion

The study shows that IPV after disclosure was lower than before the pregnancy. Our study
also shows that violence is ubiquitous in these women’s lives irrespective of their HIV status.
This may have contributed to the disappearance of the association between HIV and IPV after
disclosure in the adjusted model. Longitudinal and qualitative studies are needed to further
understand this complex relationship. This finding raises a concern about two conflicting
public health priorities: the promotion of HIV testing is clearly critical for controlling HIV
and especially for linkage to care, but our study has shown that it is also associated with
vulnerability to exposure to IPV and negative reactions. This more than ever points to the
need to combine HIV and gender based interventions such as male involvement within the health sector. Adapting successful health sector prevention interventions on gender based violence relevant to local situations could help to reduce violence related to HIV testing and disclosure (31).

The study demonstrates the interconnectedness of IPV, HIV risk behaviours and women’s HIV status. Research is needed to assist in developing interventions in resource-poor settings which may assist women in disclosing their status without further creating harm. We found that negative outcomes including violence occur both immediately and long after disclosure. Promoting HIV disclosure will remain a core component of the fight against HIV. More attention must be given to the gendered nature - and consequences - of disclosure. More sensitivity on the endemic nature of IPV and focus on engaging both women and men in preventing such violence in general and negative and violent reactions after disclosure in particular is needed.
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References


Figure 1: Prevalence of intimate partner violence (physical, sexual or emotional) after testing and disclosing HIV status to a partner (%)

Women with known HIV results 1951

- HIV positive 299 (15.3%)
  - Disclosed results 259 (89.3%)
    - Negative reaction 141 (58.3%)
      - Abused 105 (40.54%)
    - Positive reaction 101 (41.7%)
      - Not Abused 154 (59.46%)
  - Did not disclose 31 (10.7%)
    - Not Abused 154 (59.46%)

- HIV negative 1652 (84.7%)
  - Disclosed results 1558 (96.5%)
    - Negative reaction 279 (18.4%)
      - Abused 490 (31.45%)
    - Positive reaction 1239 (81.6%)
      - Not Abused 1068 (68.25%)
  - Did not disclose 57 (3.5%)
Table 1: Prevalence of intimate partner violence 12 months before pregnancy and after HIV disclosure by HIVsero-status. N=1817

<table>
<thead>
<tr>
<th>Violence type</th>
<th>HIV negative n=1558 (%)</th>
<th>HIV positive n=259 (%)</th>
<th>All women n=1817 (%)</th>
<th>p-value</th>
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<td>IPV BEFORE PREGNANCY</td>
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<td>199 (76.8)</td>
<td>1438 (79.1)</td>
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<td>Yes</td>
<td>319 (20.5)</td>
<td>60 (23.2)</td>
<td>379 (20.9)</td>
<td>0.324</td>
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<tr>
<td>Sexual: No</td>
<td>1030 (66.1)</td>
<td>157 (60.6)</td>
<td>1187 (65.3)</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>528 (33.9)</td>
<td>102 (39.4)</td>
<td>630 (34.7)</td>
<td>0.085</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emotional: No</td>
<td>954 (61.2)</td>
<td>141 (54.4)</td>
<td>1095 (60.3)</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>604 (38.8)</td>
<td>118 (45.6)</td>
<td>722 (39.7)</td>
<td>0.039</td>
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<tr>
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<td></td>
<td></td>
</tr>
<tr>
<td>Physical or sexual: No</td>
<td>866 (55.6)</td>
<td>132 (51.0)</td>
<td>998 (54.9)</td>
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<tr>
<td>Yes</td>
<td>692 (44.4)</td>
<td>127 (49.0)</td>
<td>819 (45.1)</td>
<td>0.167</td>
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<tr>
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<tr>
<td>Physical, sexual or emotional: No</td>
<td>619 (39.7)</td>
<td>97 (37.5)</td>
<td>716 (39.4)</td>
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<tr>
<td>Yes</td>
<td>939 (60.3)</td>
<td>162 (62.6)</td>
<td>1101 (60.6)</td>
<td>0.487</td>
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<td></td>
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<td></td>
<td></td>
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<tr>
<td>IPV AFTER DISCLOSURE</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Physical: no</td>
<td>1478 (94.9)</td>
<td>233 (90)</td>
<td>1711 (94.27)</td>
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</tr>
<tr>
<td>Yes</td>
<td>80 (5.1)</td>
<td>26 (10.0)</td>
<td>106 (5.8)</td>
<td>0.002</td>
</tr>
<tr>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Sexual: No</td>
<td>1214 (77.9)</td>
<td>192 (74.1)</td>
<td>1406 (77.4)</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>1344 (22.1)</td>
<td>67 (25.9)</td>
<td>411 (22.6)</td>
<td>0.177</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>Yes</td>
<td>p-value</td>
<td></td>
</tr>
<tr>
<td>--------------------------</td>
<td>---------------------</td>
<td>-------------------</td>
<td>-----------</td>
<td></td>
</tr>
<tr>
<td>Emotional: No</td>
<td>1301 (83.3)</td>
<td>187 (72.2)</td>
<td>1488 (81.9)</td>
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</tr>
<tr>
<td></td>
<td>1257 (16.5)</td>
<td>72 (27.8)</td>
<td>329 (18.1)</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Physical or sexual: No</td>
<td>1175 (75.4)</td>
<td>183 (70.7)</td>
<td>1358 (74.7)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1383 (24.6)</td>
<td>76 (29.3)</td>
<td>459 (25.3)</td>
<td>0.103</td>
</tr>
<tr>
<td>Physical or emotional: No</td>
<td>1280 (82.2)</td>
<td>183 (70.7)</td>
<td>1463 (80.5)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>278 (17.8)</td>
<td>76 (29.3)</td>
<td>354 (19.5)</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Sexual or emotional violence: No</td>
<td>1080 (69.3)</td>
<td>155 (59.9)</td>
<td>1235 (68.0)</td>
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</tr>
<tr>
<td></td>
<td>478 (30.7)</td>
<td>104 (40.2)</td>
<td>582 (32.0)</td>
<td>0.002</td>
</tr>
<tr>
<td>Physical, sexual or emotional: No</td>
<td>1068 (68.6)</td>
<td>154 (59.5)</td>
<td>1222 (67.3)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>490 (31.5)</td>
<td>105 (40.5)</td>
<td>595 (32.8)</td>
<td>0.004</td>
</tr>
</tbody>
</table>
Table 2: Characteristics of participants by experiences of physical, sexual and/or emotional intimate partner violence after HIV disclosure N= 1817

<table>
<thead>
<tr>
<th>Variables</th>
<th>No IPV (%)</th>
<th>1 IPV event (%)</th>
<th>2 IPV events (%)</th>
<th>3+ IPV events (%)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Couple lives with woman's family member/s (vs. no) - 729/1783</td>
<td>543(74.5)</td>
<td>106 (14.5)</td>
<td>45 (6.2)</td>
<td>35 (4.8)</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Couple lives with partner’s family member/s (vs. no) (1176/1789)</td>
<td>863(73.4)</td>
<td>167 (14.2)</td>
<td>78 (6.6)</td>
<td>68 (5.8)</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Age - under 25 years vs 25+ (805/1813)</td>
<td>556 (69.07)</td>
<td>130 (16.2)</td>
<td>54 (6.7)</td>
<td>65 (8.07)</td>
<td>0.014</td>
</tr>
<tr>
<td>Married women vs unmarried (1653/1816)</td>
<td>1,112 (67.3)</td>
<td>308 (18.6)</td>
<td>129 (7.8)</td>
<td>104 (6.3)</td>
<td>0.064</td>
</tr>
<tr>
<td>Only primary education (129/1813)</td>
<td>76 (58.9)</td>
<td>79 (22.5)</td>
<td>14 (10.9)</td>
<td>10 (7.8)</td>
<td>0.201</td>
</tr>
<tr>
<td>Woman tested for HIV before vs no (905/1810)</td>
<td>617 (68.2)</td>
<td>163 (18.0)</td>
<td>74 (8.2)</td>
<td>51 (5.6)</td>
<td>0.290</td>
</tr>
<tr>
<td>First pregnancy vs 2+ (636/1817)</td>
<td>434 (68.2%)</td>
<td>116 (18.2)</td>
<td>43 (6.8)</td>
<td>43 (6.8)</td>
<td>0.642</td>
</tr>
<tr>
<td>Experiencing 3-6 (vs. 0-2) controlling behaviours</td>
<td>(337/1744)</td>
<td>185 (54.9)</td>
<td>54 (16)</td>
<td>37 (11.0)</td>
<td>0.0001</td>
</tr>
<tr>
<td>Woman endorsing 3-6 (vs. 0-2) sexual abuse attitudes</td>
<td>(558/1666)</td>
<td>337 (60.4)</td>
<td>130 (23.3)</td>
<td>55 (9.9)</td>
<td>0.002</td>
</tr>
<tr>
<td>Partner ever fought with another man (vs. no fighting)</td>
<td>(285/1707)</td>
<td>171 (60)</td>
<td>31 (10.9)</td>
<td>38 (13.3)</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Woman ever injured by a partner (vs. no) (113/1808)</td>
<td>49 (43.4)</td>
<td>16 (14.2)</td>
<td>10 (8.9)</td>
<td>38 (33.6)</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Child physical and/or sexual abuse (vs. none) (361/1809)</td>
<td>181 (50.1)</td>
<td>90 (24.9)</td>
<td>49 (13.6)</td>
<td>41 (11.4)</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Woman stopped/discouraged from accessing antenatal care (vs. encouraged)</td>
<td>(189 /1802)</td>
<td>97 (51.3)</td>
<td>32 (16.9)</td>
<td>26 (13.8)</td>
<td>0.0001</td>
</tr>
<tr>
<td>Woman ever had transactional sex (vs. no) (267/1816)</td>
<td>134 (50.2)</td>
<td>51 (19.1)</td>
<td>40 (15)</td>
<td>42 (15.7)</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Partner ever tested STI positive (vs. no) (99/1755)</td>
<td>49 (49.5)</td>
<td>18 (18.2)</td>
<td>15 (15.2)</td>
<td>17 (17.2)</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Experience in the last 12 months (vs. no)</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>----------------------------------------</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>(1101/1817)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>574 (52.1)</td>
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<tr>
<td>290 (26.3)</td>
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<tr>
<td>130 (11.8)</td>
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<tr>
<td>107 (9.7)</td>
<td></td>
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</tr>
<tr>
<td>&lt;0.0001</td>
<td></td>
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<tr>
<td>HIV positivity (259/1817)</td>
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<tr>
<td>154 (59.5)</td>
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<td></td>
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<tr>
<td>49 (18.9)</td>
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<tr>
<td>31 (12.0)</td>
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<tr>
<td>25 (9.7)</td>
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<td></td>
</tr>
<tr>
<td>0.004</td>
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</tbody>
</table>
Table 3: Generalised ordered multiple regression analysis showing factors associated with medium to higher with none to lower IPV (physical, sexual and/or emotional) after disclosing HIV status*

N=1817

<table>
<thead>
<tr>
<th>Variables</th>
<th>Adjusted Odds Ratio</th>
<th>95% CI</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Couple lives with woman's family members (vs. no)</td>
<td>0.68</td>
<td>0.52-0.89</td>
<td>0.006</td>
</tr>
<tr>
<td>Couple lives with partner’s family members (vs. no)</td>
<td>0.56</td>
<td>0.43-0.73</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Experiencing 3-6 controlling behaviours (vs. 0-2)</td>
<td>1.91</td>
<td>1.33-2.73</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Woman endorsing 3+ sexual abuse attitudes (vs.0-2)</td>
<td>1.58</td>
<td>1.22-2.03</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Partner ever fought with another man (vs. no fighting)</td>
<td>2.31</td>
<td>1.57-3.40</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Woman ever injured by a partner (vs.no)</td>
<td>2.39</td>
<td>1.44-3.97</td>
<td>0.001</td>
</tr>
<tr>
<td>Child physical and/or sexual abuse (vs. none)</td>
<td>1.66</td>
<td>1.25-2.20</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Experienced violence in the last 12 months (vs. no)</td>
<td>6.18</td>
<td>3.84-9.93</td>
<td>&lt;0.00001</td>
</tr>
<tr>
<td>Woman stopped/discouraged from accessing antenatal care (vs. encouraged)</td>
<td>1.92</td>
<td>1.28-3.23</td>
<td>0.002</td>
</tr>
<tr>
<td>Woman ever had transactional sex (vs. no)</td>
<td>1.82</td>
<td>1.30-2.55</td>
<td>0.001</td>
</tr>
<tr>
<td>Partner ever tested to positive to STI (vs. no)</td>
<td>2.03</td>
<td>1.28-3.23</td>
<td>0.003</td>
</tr>
</tbody>
</table>

*The generalised ordered regression model controlled for woman's age, education, marital status, past experience of violence, time of HIV test, time of interview whether woman tested for HIV before, and number of pregnancies. CI= confidence interval

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1 School of Public Health, University of the Western Cape, Cape Town, South Africa, 2 Gender and Health Research Unit, Medical Research Council, Cape Town, South Africa, 3 International Centre for Reproductive Health, Ghent University, Ghent, Belgium, 4 Women’s and Gender Studies, University of the Western Cape, Cape Town, South Africa

Abstract

Background: Globally, studies report a high prevalence of intimate partner sexual violence (IPSV) and an association with HIV infection. Despite the criminalisation of IPSV and deliberate sexual HIV infection in Zimbabwe, IPSV remains common. This study explored women’s and health workers’ perspectives and experiences of sexuality and sexual violence in pregnancy, including in relation to HIV testing.

Methods: This qualitative study was part of a larger study of the dynamics of intimate partner violence and HIV in pregnancy in Zimbabwe. Key informant interviews were conducted with health workers and focus group discussions were held with 64 pregnant or nursing mothers attending antenatal and postnatal care clinics in low-income neighbourhoods of Harare, covering the major thematic areas of validated sexual violence research instruments. Thematic content analysis of audio-recorded and transcribed data was conducted.

Results: While women reported some positive experiences of sex in pregnancy, most participants commonly experienced coercive sexual practices. They reported that men failed to understand, or refused to accept, pregnancy and its associated emotional changes, and often forced painful and degrading sexual acts on them, usually while the men were under the influence of alcohol or illicit drugs. Men often refused or delayed HIV testing, and participants reported accounts of HIV-positive men not disclosing their status to their partners and deliberately infecting or attempting to infect them. Women’s passive acceptance of sexual violence was influenced by advice they received from other females to subordinate to their partners and to not deprive men of their conjugal sexual rights.

Conclusions: Cultural and societal factors, unequal gender norms and practices, women’s economic vulnerability, and men’s failure to understand pregnancy and emotional changes, influence men to perpetrate IPSV, leading to high risk of HIV infection.

Introduction

Gender-based violence in general, including coercive sexual practices, is widely understood as an expression of male control and domination over women [1,2,3]. Although non-consensual sex both in marriage and dating relationships is common, it is believed to be under-reported [4]. Nevertheless, research conducted to understand unsafe and inequitable sexual relationships in the light of the high rate of HIV shows that coercive sexual practices, from less subtle forms to physical rape, are endemic in heterosexual intimate relationships in southern Africa [5,6,7]. In South Africa, for example, in a 2008 study conducted in the Eastern Cape and KwaZulu-Natal, nearly one third of men (28%) admitted to having raped a woman [8].

One of the challenges in studying intimate partner violence is the definition of sexual violence, which includes a spectrum of actions that vary from non-physical persuasive language to the use of physical force [9]. Definitions of sexual violence in southern Africa include: penetrative sex without the partner’s agreement, enacted by means of verbal pressure or physical force which may include emotional manipulation, threat, trickery, verbal persistence or not taking ‘no’ for an answer; being locked in a room; and being physically assaulted [9,10,11,12]. Njowana and Watts [13] include forced pregnancy as another dimension of sexual abuse in their study in Zimbabwe. In South Africa, young women report...
much research in Africa as elsewhere in the world. Many studies have shown that some women can take up to 10 years to seek help after the abuse [13].

A study by Njovana and Watts [13] and Osirim [18] argues that in Zimbabwe, violence against gender-based violence in Zimbabwe, showed that it took women up to 10 years to seek help after the abuse [13].

Prosecution of marital rape has been operational since 2001, according to the Musasa, a non-governmental organisation working with survivors of gender-based violence [17].

Marital rape has been one of the few countries in the world that has criminalised marital rape in the context of HIV infection [17,24]. The law also includes the criminalisation of coercive sexual practices) and HIV infection [1,22,23]. Zimbabwe is one of the few countries in the world that has criminalised marital rape in the context of HIV infection [17,24]. The law also includes the criminalisation of coercive sexual practices) and HIV infection [1,22,23].

In most southern African countries, rape has been redefined from the traditional common law definition whereby it consists of only heterosexual sexual intercourse without a woman's consent [17] to also include acts of non-consensual sexual penetration with the penis, finger or object into the vagina, anus, or mouth of another person; and other non-penetrative sexual acts against one's will. This study acknowledges the continuum of violence and the importance of humiliation, degradation and violation of a woman's sexual integrity. More subtle, non-physical forms of coercion in which a partner consents to sex when they do not want it, due to power inequalities and normative roles and practices, are also viewed as sexual violence.

Njovana and Watts [13] and Osirim [18] argue that in Zimbabwe, the Shona culture and the economic downturn respectively, have perpetuated unequal gender relations that increase the risk of intimate partner violence. Regarding gender socialisation and Shona culture, Kambarati [19] argues that at puberty, girls are taught how to please their future husbands as well as to be gentle, submissive and obedient wives. This further reinforces gender inequality that arguably perpetuates intimate partner sexual violence [20].

Gender discrimination and female subordination in Zimbabwe is historical and was strengthened by colonial administrative policies which subordinated women. The colonial period saw the codification of customary practices into a rigid draconian law that discriminated against women, including officialising male control over women's sexuality. For example, the authority over a single woman's sexuality, sexual and fertility rights was transferred from fathers and brothers to husbands upon marriage, hence putting a woman's lifetime under the control and subordination of men [19,21]. In addition, the influence of the marriage institution and the church is also viewed as encouraging male domination of female sexuality. It is in this broader environment of male domination of female sexuality, sexual and fertility rights that women continue to experience sexual violence in partnerships.

Although some policies against gender inequality and violence such as the Domestic Violence Act and Sexual Offences Act have been instituted in the post-independence period, implementation of these policies has not been adequate.

The last decade has been marked by an increasing acknowledgement of the role of normative gender roles and power inequalities in HIV/AIDS [20] and exploring the interconnections between gender-based violence (particularly inequitable and coercive sexual practices) and HIV infection [1,22,23]. Zimbabwe is one of the few countries in the world that has criminalised marital rape in the context of HIV infection [17,24]. The law also gives women power to seek protection orders against their violent partners. Despite this, up to a quarter of Zimbabwean women of child-bearing age report sexual abuse, with most (65%) of the abuse taking place in intimate relationships, and at least 8% occurring during pregnancy [23,26,27]. Although the criminalisation of marital rape has been operational since 2001, according to Chirawu [21], up until 2006, no perpetrator had ever been prosecuted for marital rape. Underreporting of domestic violence has been widely noted in South Africa with respect to both formal police records-keeping and in epidemiological studies [4]. Research with the Musasa, a non-governmental organisation working against gender-based violence in Zimbabwe, showed that it took some women up to 10 years to seek help after the abuse [13].

Sexual violence or rape during pregnancy has not attracted as much research in Africa as elsewhere in the world. Many studies have not considered it to be a form of gender-based violence. The prevalence of sexual violence during pregnancy has been reported in a systematic review, to range from 2.7% to 26.5% [28]. The protective effect of pregnancy on coerced sexual practices has been recorded in both western and non-western societies, although at different reporting periods. In China for instance, the prevalence of coercive sexual practices declined from 5.8% in the 12 months before pregnancy to 2.3% during pregnancy, before it rose again to 4.9% after pregnancy [29]. In Belgium, coercive sex was higher (0.9%) in the 12 months before pregnancy and lowered significantly (0.2%) during pregnancy [30].

Most of these studies were conducted in low HIV prevalence communities; the situation could be different in Zimbabwe where HIV prevalence is one of the highest in the world. Women who test for HIV and seek HIV preventive mechanisms such as condom use may experience coercive and unprotected sex from their partners who question the idea of using condoms in marriages.

Since the enactment of laws in Zimbabwe against partner rape and deliberate STD/HIV infection in intimate relationships there has not been a dedicated study to explore current experiences of sexual violence. HIV testing among antenatal care attendees in Zimbabwe shifted from a patient-initiated model based on the “opt-in” approach to a provider-initiated testing and counseling model in which all antenatal care attendees are invited to test and only those who “opt out” will not be tested [27]. This model, sometimes known as the “opt-out” approach, has significantly increased HIV testing coverage from 65% to 99.9% [27]. These changes in policy related to partner rape and HIV testing in public health facilities are both important to assess in their own right, and provide a framework within which to assess and interpret intimate partner sexual violence (IPSV) and how it intersects with HIV.

There is a need to provide an in-depth understanding of the HIV risk factors that are increasingly documented – but with little contextualization - in qualitative research. The aim of this study was to explore participants’ experiences of IPSV during pregnancy, including after HIV testing, with a particular focus on how such violence may interlink with HIV infection.

Methods

A qualitative study on IPSV during pregnancy and HIV testing was conducted using focus group discussions (FGDs) involving pregnant and nursing mothers and in-depth interviews with health workers. Qualitative thematic analysis was used to develop a theoretical understanding of sexual violence experiences during pregnancy and their coexistence with HIV infection, testing and disclosure. Data were collected at six public primary health care facilities (pre and post-natal) in low-income high density residential suburbs in Harare in April and May 2010. This exploratory study informs a larger mixed method study of the prevalence and dynamics of IPSV and HIV in pregnancy, aimed at developing interventions with health workers, women and men against IPSV.

Ethics

The study was conducted following the WHO Guidelines on researching violence against women [31]. The Medical Research Council of Zimbabwe and the University of the Western Cape ethics committees approved the study. Permission to conduct the study was granted by the Harare City Health Directorate. All study participants were given full information about the research and its aims. All participants voluntarily gave written consent to participate in the study. Participants were assured that they could leave the research at any time. Confidentiality and anonymity were maintained.
were maintained by asking participants not to mention their names or disclose their HIV status during focus group discussions.

Focus group discussions (FGDs)

Seven FGDs were held in Shona with 64 women at six public health facilities. Four FGDs involved pregnant women attending second or third trimester antenatal care (ANC) clinics and three were held with nursing mothers attending postnatal care (PNC). All women were reported to have tested for HIV during their initial ANC visits through the provider initiated HIV testing and counseling (PITC), although we did not independently verify their individual test results.

Pregnant and nursing mothers were aged between 18 and 38 years old. Most were not formally employed. Almost all reached or had completed 11 years of formal education. Half were either carrying first pregnancies or had one child. The highest number of pregnancies a participant had ever had was four. Almost all reported that they were currently married or cohabiting. In Zimba, led by a researcher and a trained research assistant, lasted 1 to 1 1/2 hours. All were audio recorded and field notes were also taken. The FGD Guide covered the major thematic areas contained in the validated sexual violence research instruments designed by the WHO [23] which are being used in the broader study.

The initial questions focused on women’s household chores, planning in the household, and likes and dislikes during pregnancy. The discussions eventually progressed into the more sensitive issues of sexual violence and HIV. To enable open discussion, participants were invited to narrate their experiences as stories about other people or “someone I know” and not to feel obliged to disclose their own personal experiences. This technique of disclosing sensitive personal information in third person was used in a sensitive study of HIV and risky sexual practices among young female university students in South Africa [32]. Our use of this technique helped to increase rapport and disclosure of sensitive sexual violence experiences which would not have been shared as personal experiences.

Interviews with health workers

Seven key informant interviews were conducted with health workers (six nurse midwives and one HIV testing nurse) at six facilities. These face-to-face open-ended interviews were held privately with participants in English by a fluently bilingual (English-Shona) researcher, but participants often switched to Shona (the local language) when quoting verbatim from their recollections of encounters with abused women or around disclosure issues since nurses communicate with clients in Shona and not in English. Data were captured by audio recording and written notes. The information collected from health workers was then cross-checked with that collected from FGDs, to understand the organisation and impact of antenatal and postnatal care, provider-initiated HIV counseling and testing, and disclosure of HIV results.

Data analysis

Audio recorded data was transcribed verbatim and vernacular text was translated to English – translations were checked for accuracy, consistency and validity. Information from field notes was cross checked with information from the tapes before coding. All scripts were loaded into OpenCode qualitative software to organise the data into codes and categories. During this process, transcripts were repeatedly read and codes constructed based on the research objectives. Common themes were formed and new codes formulated as themes emerged. We systematically followed this process of coding and categorizing the data under themes presented in the findings section until we were satisfied that all data that fit the themes were relevantly coded. Thematic content analysis was used to analyse the data in each theme. We assessed the content and meaning of the information in each theme in line with the study objectives as well as findings from other studies. Whilst the concept of analytic induction was used to examine similarities between information from FGD participants and that from health workers, differences were also noted. The findings section below presents each theme.

Results

The first significant finding was that all participants discussed the issues openly and both health workers and participants reported coercive or violent sex during pregnancy as common place yet complex. Results are presented by first describing social norms around pregnancy. Next norms relating to sexual relations in marriage are outlined. Coercive sexual practices that participants reported are then described, as well as reports of positive and pleasurable sexual experiences. Finally, we report how respondents discussed the issue of sexual relations around the time of HIV testing and disclosure.

A. Social norms around pregnancy and expectations of child-bearing

Participants reported that women have less decision making power than their partners concerning their reproductive health and when to fall pregnant. Many first pregnancies were not planned and this was viewed as a facilitative factor in partner conflict and violence during pregnancy. For example, some young men raped their partners during dating, and these women later became their wives. Participants reported how date rape with the intention of impregnating a girl was carried out if the girl refused a marriage offer, and was generally perpetrated by poorer men who lacked the money for bride wealth. According to both FGD participants and key informants, these unintended pregnancies usually led to violence later in the relationship, with some relationships ending during pregnancy. One pregnant woman remarked, “That pregnancy can bring noise into the family... I think it all depends on how the pregnancy came about.” (FGD Pregnant Women, Facility D).

Participants also reported a widespread practice of family control over their reproduction, with relatives, especially from the man’s side, compelling the woman to have a baby:

“Some mothers are pressed by their parents but most of the time the pressure comes from the men’s side. They will start saying that you did not come here [to our family] to eat [but rather you have a duty to bear children for the family]. You notice how they [in-laws] speak, that they now want you to have another child.” (FGD Pregnant Women, Facility F).

At times, for fear of being accused of intervening in a couple’s private life, in-laws and aunts “speak in ciddles and parables” telling the daughter-in-law to become pregnant. In the case of those with children already, in-laws may “take their [the couple’s] last baby to their rural area which traditionally means the child is disturbing them from having another baby” or may come to town saying, “they wanted to be spoiled” by their son who does not have a child. A few participants reported how in-laws and aunts directly advised a newly-married wife to become pregnant lest she be accused of barrenness.
B. Norms relating to marital sexual relations

Another key finding was the importance of norms relating to marital sexual relations. Women got advice about sexual intercourse during pregnancy from many sources. Tradition and the institution of marriage emerged as major factors impacting on a pregnant woman’s capacity to resist sexual violence and for men to justify their perpetration thereof. Despite not agreeing to have sex, women reported that they had sex to please their partners according to tradition. One woman in a FGD at Facility B mentioned that, “When you are married you shouldn’t refuse [sex].” Another said, “...in our tradition it’s not possible [to deny him sex]. You must just pretend you are enjoying it by making the necessary noise in bed”. To these women, sex was a matter of fulfilling the traditional role of being wife, which dictates that a man has rights over the sexuality of his wife. If she refuses sex she could be punished bitterly, for example, by being chased away from home. As one woman narrated, “Yes he will tell you that it’s his right and it’s his house. He will tell you to get down from the bed. If you get down he will tell you to leave his house. So you will see that if you go out it will be difficult to come back. Therefore, you end up doing it because you would have been forced.” (FGD Pregnant Women, Facility E).

For many women, saving a marriage by observing a husband/partner’s demands was an important aspect of womanhood. At Facility D, one older woman reprimanded a young expecting mother, saying, “Sometimes we just have to understand and try and save our marriages. You can have sex once or twice per week to protect your marriage.” Therefore, you end up doing it because you would have been forced.” (FGD Pregnant Women, Facility E).

The practice of paying bridewealth in Zimbabwe also facilitates the domination of female sexuality by husbands as anthropologists argue that bridewealth transfers control of female sexuality from a woman’s family of origin to her husband during marriage [19,21,25]. In a FGD at Facility A, women overwhelmingly highlighted bridewealth as a major contributor to forced sex. They interpreted bridewealth as giving a married man unlimited access to sexual intercourse with his wife, making it difficult for women to refuse sex. The following extract shows how men also reportedly take advantage of bridewealth to demand sex:

Respondent 1: Some men will just hide behind the fact that “I married you” and when I am pregnant (interruption: Yes! All agreeing) so I end up doing it. He shouldn’t be denied.

Respondent 2: This issue of lobola saying “I paid for you!” (FGD Pregnant Women, Facility E).

Respondent 3: This issue of lobola saying “I paid for you!” (FGD Pregnant Women, Facility E).

Participants reported that aunties advised women not to refuse their partners’ sex, and thus played a major role in reinforcing women’s inferior position:

“They tell you not to deny him. If he becomes promiscuous [because you denied him sex] it will stress you more. So you end up forcing yourself to do it. You will pretend as if you like it.” (FGD PNC Women, Facility A).

The reinforcement of women’s submission to men’s sexual demands extends well beyond contexts obviously and directly related to marital sexuality. Influence from broad-based social institutions, such as the church and the clinic, was also cited as manipulating women to tolerate forced sex. The role of health workers should not be underestimated. Pregnant women were counseled that they should not refuse or resist sex until they delivered, and they appeared to take this advice quite seriously. One woman explained how, during the health education talks at the antenatal clinic, the tradition of not refusing your husband sex under any circumstances was reinforced:

“We came yesterday and the nurses taught us not to refuse our husbands sex because they will go out to small houses. Even when you feel you don’t like it just do what you can so that you keep him satisfied. Try to push until labour. These are some of the teachings that you will not be aware of. They will say breathe with two entrances [refers] [Laughter]. Some say at six months I will no longer have sex. Do not be fooled just try and give him sex so that he will be satisfied. As for me when I came from the clinic I changed at once. I am now doing what I can and not to deny him totally.” (FGD Pregnant Women, Facility D).

Regarding the church, participants stated:

“At church we were taught that you should not sleep facing opposite directions” and that if one is in great pain they insisted that they were taught to “just romance or do something different and not to deny him totally.” (FGD Pregnant Women, Facility D).

However, some women reported that allowing men to do non-penetrative sex acts would eventually lead these men to ask for or actually forcing sex.

C. Coercive sexual practices

The majority of participants reported enduring coercive sexual practices during pregnancy, as they felt powerless to resist. Most expressed pain, displeasure and dislike for sex during the third trimester, and referred to uncomfortable sexual practices, having sex to keep the husband in the house, and social norms pressuring them to tolerate forced sex.

1. Uncomfortable and painful sexual styles and positions.

Most participants reported that in their last trimester their husbands insisted on uncomfortable sexual acts against their will. These were commonly reported as, painful sexual positions, vigorous and energetic movements during sex, and sexual styles dictated by men for their personal satisfaction. These acts became even more painful closer to the delivery date as, “he would do it the way he likes not what I suggest...” (FGD PNC Women, Facility F). Many participants reported being forced to perform styles they thought were degrading:

“These men are very promiscuous and they want the styles that they get out there. Sometimes you will not be able or you won’t know it (Interjection: he will be knowing plenty of styles)! They all burst into laughter. Yes, they will be knowing plenty of them.” (FGD Pregnant Women, Facility E).

Many participants admitted that they would rather have painful and unsatisfying sex to make their partners happy, rather than risk their partners having sex with other women if they refused them sex (which is often threatened if the wife refuses sex). Some pregnant women have learnt to tolerate painful sex, whilst others have used the physical exercises offered at the clinic to enable them to perform sex with limited pain. Women described both the painful positions and the exercises matter-of-factly:
“Which is better getting the pain and boredom for thirty minutes whilst doing it than for him to go look for someone else? So you just do the position that he wants... And it will be over. Maybe he wouldn’t want it every day. He will be happy saying that my wife is compromising. So you as a woman you just have to be strong. Isn’t that what we have to be strong?” (FGD Pregnant Women, Facility F).

Participants reported that men believed that having sex helps to clear conflict or anger. For example, they reported being forced to have sex after an argument in the hope that the wife will forget the misunderstanding. A man who beat his partner and then demanded sex from her reportedly argued, “it is us, not our sexual organs, who have misunderstood each other.” (FGD PNC women, Facility F).

In other FGDs, participants reported similar coercive sex. “Even when I am angry and I have crossed my legs, the husband will try to open my legs.” (FGD Pregnant Women, Facility D).

### ii. Having sex to lure him away from multiple sexual partnerships.

Participants across FGDs reported that the desire to keep their partner ‘in the house’ – or to return to the house – led them to accept coerced sex, no matter how painful or unwilling they were. They reported that their partners had ‘small houses’ (a term used in Zimbabwe to refer to girlfriends/partners other than the main partner) and that they would endure sex in order to ensure that their partner did not take on other sexual partners.

“…sometimes you won’t be interested but you just force yourself to do it... You would have been told [by nurses and aunties] not to deny him. Otherwise he will be promiscuous. You will just do it to satisfy him. As for me even if I don’t feel like it I just force myself to do it just to make him happy. If I don’t do that he will leave me and go find someone else to sleep with. So if he dies that and I hear about it or see it, it will be very painful for us.” (FGD PNC Women, Facility A).

Nurses confirmed that they heard stories of women reporting their partners as being philanderers during their pregnancy. An HIV counsellor in the maternity clinic reported: “we hear women saying that, “our husbands prostitute”, “he is not sleeping at home”, “he is again in love with his ex-lover…”” (Interview with Counsellor, Facility E).

Some participants reported that if they go for a long time without sex, the husband will become suspicious and accuse her of promiscuity; and it was therefore better to accept sex despite feeling unwel.

### iii. The effect of pregnancy and emotional changes on sexual violence.

The pre-pregnancy period was reportedly experienced by some women with positive sexual experiences since women could perform painless sex and were generally in good health. Participants reported that the emotional changes that took place during pregnancy, which often resulted in women wanting sex less frequently, were not well understood by men. This sharp contrast in sexual relations between the pre-pregnancy and pregnancy period sparked conflict between partners but inevitably ended in men forcing their partners to have sex even though the woman was in pain or felt ill.

“What I have noticed is that men always want sex more when you are pregnant than when you are not.” (FGD Pregnant Women, Facility F).

“Even if you say you are not feeling like doing it he will be saying his temperature and your temperature this days will be suit each other. So he will force you.” (FGD Pregnant Women, Facility E).

“Sometimes you will be feeling that you can no longer do it. Sometimes wanting it once or after two days. But he will be expecting it every day. That’s being cruel because your body can no longer sustain that. It will be affecting you and it’s painful.” (FGD Pregnant Women, Facility E).

Other participants reported not wanting sex at all during pregnancy even though they used to like it in the pre-pregnancy period. Some women commented that their partners would be more vigorous, leaving them in great pain after sex:

“When a woman is pregnant you will not even want to have sex but it causes problems. Husbands do not understand because they do not consider that I am now in a different situation, even if I used to like sex all the time if they will remember that when you were not pregnant that’s not what you used to do. As for me I only think about my husband when he is not around.” (FGD Pregnant Women, Facility D).

Many participants reported feeling too ill and weak to have sex in late pregnancy, yet men interpreted this as dislike for sex and ‘unchivalry’ and so forced their partners to have sex.

Participants believed that pregnancy and emotional changes varied with the sex of the baby and whether the pregnancy was the first or a subsequent one. They associated the boy child with more problems from the partner, their dislike of sexual intercourse, and painful sex; whilst the girl child was associated with women ‘nagging’ the partner for more sex. The same information was reported by participants who had given birth before:

“It varies across pregnancies. My current pregnancy is different from all the previous. When I was pregnant with my daughter, it was me who was nagging him, asking for sex even during the day. He would say, ‘Can’t you see your tummy is now too big’. I would tell him that was not his concern. With my son’s pregnancy we never agreed (to have sex) till I delivered. It depends with the pregnancy. Like now I feel it’s painful. I feel like I am cracking between my legs but I will just say what else can I do.” (Laughing). (FGD Pregnant Women, Facility F).

“It happened when I was pregnant with this child. The pregnancy carrying this boy was usually troubleome. I ended up leaving him (going) to my family…” [The Shona custom called kusungira requires that a pregnant woman spends the third trimester with her mother, learning to become a mother but this woman left the husband much earlier because of violence] (FGD PNC Women, Facility F).

Participants reported that the influence of drugs also led their partners to engage in vigorous, painful and uncaring sexual acts:

“It’s like when a man forces you to sleep with him so you have agreed to sleep with him on that occasion. He might come drunk or after having smoked dagga [marijuana]. (Laughing). He will be planning to fix you (Laughing). It will be very clear that even if he says let’s sleep together you will refuse. Maybe because the last time you slept with him (in that state) you really felt your back aching. So this issue of being forced to sleep with him is very bad” (FGD Pregnant Women, Facility C).
D. Positive, equitable and pleasurable experiences of sexuality in pregnancy

A number of participants reported positive and consensual sexual experiences during pregnancy. Some participants spoke about how their husbands understood their loss of sexual desire during pregnancy, however in some cases it was a challenge to ensure such understanding. As one pregnant woman remarked, “I think someone explained to him because he now understands.” The following statement illustrates this further:

“As for me I can give him when I feel like giving him when I see that many days have passed without sex. We even joke about it with my husband. He sometimes promises me before he comes home and asks me if we are going to have sex. I will then tell him if the baby desires to have his daddy or not. Then he will come home fully aware that we will sleep facing opposite sides. To me that is respect.” (FGD Pregnant Women, Facility D).

In some FGDs, women reported that they participated in ‘kitchen parties’ where they shared experiences and information about sexual matters in their relationships, including during pregnancy with the aim of making sex pleasurable even in difficult circumstances. A kitchen party in urban Zimbabwe is a social gathering organized and attended by women only, originally to present kitchenware gifts to a newly married woman but has now extended to advising a newly married woman about sex and sexuality in a marriage]. These educational forums reportedly included information about women’s rights to decide, initiate, lead and control sex. This led to instances where they felt they were ‘forcing’ men to engage in sex more frequently than they otherwise might have wanted. The two statements below illustrate how women exercise power and agency over sexual matters in their relationships.

“My husband… said his friend was coming to work very tired every day. So I said that the wife to his friend demanded sex every day saying that the nurses have said so until delivery (Laughter). The pregnancy wants the father but the father does not want the pregnancy. Thus the husband is now doing it for duty so some husbands are being forced to have sex too.” (FGD Pregnant Women, Facility D).

“It all depends on one’s feelings. Some might want it so many times. In most cases, it is the woman. Sometimes we discuss this as women. Some women can really stand their ground. They can go on for longer hours. Much more than the husband! Some husbands are in a tight situation such that they don’t even sleep at night. She will be constantly waking him up wanting more rounds of sex…” (FGD Pregnant Women, Facility A).

Again, the gender of the baby was believed to impact on sexual desire. In a group of post-partum mothers, participants who were pregnant with girls reportedly desired more frequent sex and found sex more pleasurable during pregnancy, than those who had been pregnant with boys. The same was also reported by some participants who compared their previous pregnancy with a boy child to their pregnancy with a girl child.

E. The effect of HIV testing on sexual experiences and relationships

Participants mentioned a number of control issues, abuse and sexual relationship issues related to HIV testing and prevention of mother-to-child transmission of HIV. These included needing a partner’s permission to seek reproductive health care, men’s refusal to test for HIV, refusing condom use to prevent HIV, refusing to disclose HIV results to female partners, and intentionally trying to infect a wife with HIV.

The study found unequal gender relations regarding HIV testing as men refused to test but expected to infer their HIV status from their partners’ results. Participants and health workers reported that men saw having a baby as a way of knowing their own HIV status through their partners’ HIV tests at the ANC.

“...We are not usually sure about our status, men do not usually test through the needle but through having a baby, knowing that the wife will be tested at the clinic…” (HIV Counselor, Facility E).

Many participants reported that after they had tested for HIV and received HIV education, they requested that their partners also test. Many refused, claiming that if the woman tested negative, then he was also negative as they were having unprotected sex. Other men lied that they had tested at work. Many refused to disclose their results to their partners and subsequently perpetrated sexual violence. Stories of intentionally infecting a female partner after the man tested positive were common in FGDs:

“The husband might know that he is sick so he will come and force his wife to sleep with him and he infects her. These are men who do not tell their wives the truth about their status. You will only find out when you come this side [PITC clinic] that you have HIV.” (FGD PNC Women, Facility A).

“The husband was sick (TB) and the wife looked after him and he recovered. Now after some years the wife got pregnant and the husband was the one who forced the wife to have a child knowing very well his experiments he was doing. The wife tested HIV positive…She persuaded him [to test] … and they were both positive… and the husband took that to say the wife was the one who had brought the disease into the house.” (FGD Pregnant Women, Facility D).

“What we have discovered is that some of these mothers when they test positive… later on you discover that this man had earlier on tested and he knew his status but did not disclose it to the partner… She will come and tell me, ‘Sister I don’t understand this. When I told my husband about my status, he was not surprised at all… I think he tested before but he did not tell me about it’” (Interview with Sister in Charge, Facility F).

In the case of a woman testing positive, the male would often accuse her of prostitution and of “bringing the disease” into the house. If the man tested positive he would still blame the woman for infecting him. Some participants also reported that they risked being chased away from home if they tested positive.

Some women who tested negative tried to refuse their partners sex until they were tested. However, they eventually succumbed to his pressure:

“...I asked my partner to go for a test but he refused. He said he does not have the disease saying that since I didn’t have it meant that he didn’t have it as well. I told him to go for tests. I even refused to sleep with him but he wouldn’t listen.” (Interview with Sister in Charge, Facility F).
Discussion

The major theme of the narratives recounted by the participants was women’s use of overt or threatened violence or abandonment to control female sexuality, and norms that undermine women’s control over their sexuality. A related theme was that HIV testing and disclosure increases the risk of sexual coercion and violence, while sexual coercion and violence limit women’s – and men’s – capacity to protect themselves from or appropriately manage HIV infection. The paper also highlighted that women’s diminished sexual interest during pregnancy, especially in the third trimester, was not understood or respected by men. However, the women do not recount a simple and uniform passivity or “victimhood”: we also presented evidence of how women demonstrated agency in negotiating and demanding pleasurable and equitable sexual relations during pregnancy.

Underlying the theme of physical and emotional changes during pregnancy and how this affects sexuality is the importance of social norms, unequal power relations, and the social and economic vulnerability of women as reported elsewhere [33]. Familiar and cultural norms around the role of married women, reproductive health and pregnancy, and when and how sex is to be performed, impact on women’s agency and facilitate a situation which is conducive to sexual violence.

Women’s economic vulnerability further facilitates partner abuse, in line with other studies [3,28,34]. Almost all participants in the study were unemployed and financially dependent on their partners for their (and their child’s) survival and support during and after the pregnancy. Given the harsh economic environment in Zimbabwe at the time of this research, where unemployment was around 80%, risking the loss of a marriage or partnership with an employed man during pregnancy was detrimental to economic survival and meeting health needs. The burden of sexual violence was lighter for many women than the perceived economic burden of being divorced. Respondents expressed an inability to refuse coercive and unsafe sex for fear of being divorced in a community in which single women have less moral worth and are exposed to economic vagaries, compared to married women. This relationship can be compared to the patron-client relationships which adolescents in East Africa entered with ‘sugar daddies’ (older sexual partners) in return for economic gifts from these abusive partners [35].

‘Culture’, ‘tradition’ and social institutions play a major role in initiating, strengthening and reproducing women’s subordinate position and the potential to be abused by their partners. The widely taught traditional norm of sexual submission of wives was reinforced by the family, church and health institutions. Von Sydow’s [36] review of 59 studies of sexuality during pregnancy notes that most participants reported that health workers’ advice about sexual intercourse was restrictive. Our findings suggest that health workers, who share the same culture as their clients, subscribe to the same doctrine of male control over women’s sexuality. This calls for widespread community campaigns and education of health workers for gender equity in sexuality.

Traditional feminine and masculine roles regarding sex and sexuality apply to pregnant women as much as they do to women in general. In other anthropological studies in Zimbabwe, women were reportedly not expected to initiate sex or show sexual pleasure as this suggests sexual experience, whereas they are expected to be less sexually experienced than their partners [18,19]. However, some participants in our study openly discussed their sexuality and heightened sexual desires during pregnancy, foregrounding their sense of agency in their relationships. It is especially interesting to compare this with the majority of studies in southern Africa that highlight women’s vulnerability and unequal power relationships with men, as well as the absence of a positive discourse about women’s sexuality (see for example [17,30,39]).

Negative forms of masculinity were also demonstrated in the study with men perpetrating risky sexual behaviours such as having multiple sexual partnerships; forcing sex; denying that they could be HIV infected; refusing HIV testing or safe sex; not disclosing their HIV status; blaming partners for positive test results; and perpetrating sexual violence under the influence of alcohol. Similar heterosexual masculinity amongst South African men have been reported elsewhere [20,40].

Although there are laws in Zimbabwe that prohibit marital rape and intentional HIV infection in partnerships, the practice remains common, and is characterised more by non-physical coercion than by physical force. Unlike violence perpetrated by strangers which involves physical force [41], rape in this study is mainly marital and stems from women’s cultural submission to men. Women learned and increasingly felt that they had to perform ‘wifely duties’ by being obedient to their partners’ sexual demands. In most cases women reported feeling obligated and ‘forced themselves’ to have sex to please their partners, not themselves.

We reported on women’s agency as demonstrated by some women who were empowered and could negotiate or dictate more equitable and satisfying sexual relationships. This agency shows that women were not just passive sexual partners; they also demonstrated some form of sexual power over their partners during pregnancy. This finding resonates with discussions of changing notions of empowerment that Silberschmidt [42] postulated among women in East Africa in which women increasingly gained sexual power over their economically disempowered men.

The study had some limitations. The sample was small and each participant had only one opportunity to reflect on and discuss the issues. Most of the data is based on women’s reported experiences which may not necessarily reflect their partner’s views and behaviours.

More research involving men is needed to understand their views on the perception of sexual violence. However, studies on
Conclusions

This paper has shown how complex sexual violence during pregnancy is in Zimbabwe and the many ways in which it is shaped by traditional norms and reinforced by social institutions, kinship and professional relationships. Most of the reported sexual violence was in the form of coercive sexual practices influenced by dominant male masculinity in society. Whilst pregnancy is an opportunity to test and disclose HIV status [43], participants reported that an HIV positive result can lead to abandonment, divorce and sexual violence. Such experiences have been reported elsewhere [44,45]. Furthermore, women’s economic dependency is easily exploited by their partners, especially when women are at their most vulnerable – during pregnancy.

Educating communities about, and implementing multi-sectoral approaches towards, safe and equitable sexual relations are crucial steps to containing sexual violence during pregnancy. An important part of this is to financially empower women through educational workshops and credit schemes as effectively demonstrated by the Stepping Stones [34] and IMAGE [22] studies in South Africa. However, transforming unhealthy and coercive models of masculinity and femininity will require sustained efforts across all levels and institutions of society.

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Author Contributions

Conceived and designed the experiments: SS NA MT TS CZ. Performed the experiments: SS NA MT TS CZ. Analyzed the data: SS NA MT TS CZ. Contributed reagents/materials/analysis tools: SS NA MT TS CZ. Wrote the paper: SS NA MT TS CZ.

References


Opportunities and obstacles to screening pregnant women for intimate partner violence during antenatal care in Zimbabwe

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Introduction

Intimate partner violence (IPV) during pregnancy impacts negatively on women’s reproductive health and on their babies. Studies have shown its association with unsafe abortion, gynaecological disorders, pregnancy complications, miscarriage, low birth weight and STI/HIV infection (Audi et al. 2008; Heise, Ellsberg, and Gottmoeller 2002; Silverman et al. 2006; WHO 2005). Pregnancy offers a unique opportunity to identify and assist women experiencing IPV (Bacchus et al. 2004) as many pregnant women visit antenatal care clinics repeatedly. Recent reviews have also shown that identification of abuse increases sharply when universal routine screening is conducted in health settings like antenatal care (Bacchus et al. 2010; O’Campo et al. 2011). Literature on patterns of IPV suggests that violence can begin, continue or increase during pregnancy (Taillieu and Brownridge 2010), pointing to the important role that screening and the provision of comprehensive care to abused women could play in decreasing the impact of abuse on the health of women and their children (O’Campo et al. 2011). This is particularly relevant for countries and regions where high levels of IPV have been reported. The prevalence of

Keywords: pregnant women; screening; intimate partner violence; midwives; Zimbabwe
physical IPV during pregnancy (8%) in Zimbabwe (CSO and Macro 2007) is among the higher levels recorded recently (Shamu et al. 2011).

A recent review of the effectiveness of universal and routine IPV screening in health settings concluded that a multiple-component programme that includes initial and ongoing staff training, effective screening protocols, institutional support, and immediate onsite or offsite referral services increases disclosure and identification of abused women (O’Campo et al. 2011). Although routine screening for violence in health settings has been endorsed by many health professional organisations, including the US academies and colleges of gynaecologists and paediatricians (Roelens et al. 2006; Waalen et al. 2000), few health settings in the world have begun implementing this intervention. Most African health settings do not meet the above criteria for comprehensive programmes to respond to IPV because of their weak health systems, lack of infrastructure and human resources as well as cultural reasons that inhibit discussing or disclosing domestic life outside of the home. Unlike Western countries, many health systems in Africa are still to recognise IPV as a health problem or that the health sector has a role to play. The fact that any screening programme must lead to appropriate care imposes major challenges to ill-equipped and short-staffed health and social care systems in many environments in Africa. However, empirical assessments of the ‘readiness’ of African healthcare settings for comprehensive IPV interventions are generally lacking.

Women’s views about being screened in health settings have been documented as generally pro-screening (Ramsay et al. 2002). In all, 98% of the 1313 rural and urban female patients interviewed in Australia, believed it was a good idea to be screened (Webster et al. 2001). In the USA, abused women were one and a half times more likely to agree to screening than women who reported no abuse (Gielen et al. 2000).

Bacchus, Mezey, and Bewley’s (2002) qualitative study in the UK showed that women were willing to participate in IPV interventions if their safety and confidentiality were guaranteed. Women preferred to be interviewed by trained health professionals who were empathetic, non-judgemental and genuinely interested in the client’s health and wellbeing. The importance of cultural sensitivity in screening to encourage disclosure of violence has been highlighted (Hindin 2006) and understanding the client’s language and nonverbal cues when trying to identify and respond to IPV is essential for its success. A trusting relationship between a midwife and a client helps when responding to violence (Stenson, Sidenvall, and Heimer 2005). Although these studies demonstrate women’s positive attitude to being screened and how culture influences responses to IPV, they were all conducted in developed countries and predominantly in specialist, private, obstetrical-gynaecological offices rather than in busy public primary health-care settings. Similar studies about the views of pregnant women in African health care settings are only beginning (Joyner and Mash 2012; Undie et al. 2012). In Zimbabwe and other developing settings, where most pregnant women are attended to by nurses in public health settings (CSO and Macro 2007), women’s views about being screened for IPV could be different.

Screening for IPV is not part of current clinical practice in Zimbabwe, yet high IPV rates during pregnancy in Zimbabwe (CSO and Macro 2007) seem to warrant it. This paper aims to explore the current environment in order to identify opportunities and obstacles for interventions aimed at identifying and responding to IPV in antenatal care. The paper presents formative research from a broader study of the dynamics of IPV during pregnancy in Zimbabwe. The formative study provided an opportunity to explore perceptions and experiences of nurse midwives working in Zimbabwe’s public maternity services regarding IPV among pregnant women, including possible responses in the clinic setting. Perceptions and experiences of women attending these services were also explored.
Methods

Study setting

The setting of the study is within six public antenatal care clinics located in low-income residential areas in Harare. These clinics were purposively selected because of their long-standing relationship with a local university teaching programme. Most clinics included in the study had antenatal services three days a week and up to 35 women were attended each day per clinic. Clinics controlled the maximum number of pregnant women by dismissing ‘excesses’ if the turn up was higher than their daily quota. There were chronic staff shortages in the maternity services owing to brain drain and nurses would often be shifted from one department to another. Each antenatal clinic was located in a polyclinic, which also housed the primary health care and family health clinics. Women gave birth in the maternity ward of the antenatal care clinic and brought their babies to the family health clinics. At the time of the study, a fee of US$50 was charged to each woman for antenatal, labour and post-natal care.

We sought and obtained ethical clearance from the Medical Research Council of Zimbabwe and the University of the Western Cape Senate Research committee, whilst permission to conduct the study at the six facilities was provided by the City Health Directorate. To preserve the anonymity of women, health workers and clinic sites, we have replaced their names with pseudonyms.

Design

We used qualitative methods, including in-depth interviews, FGDs and observation. The in-depth interviews were held with service providers, and FGDs were held with pregnant and nursing women to explore health workers’ and women’s views and perceptions of responding to IPV (physical, sexual and emotional) during pregnancy. During the data collection phase, the researcher spent time in the clinic and observed the clinic space and clinical interactions during the antenatal care sessions.

Interviewing health workers

At each of the six clinics, one senior nurse midwife (sister-in-charge) in charge of the maternity clinic was purposively selected to participate in the interviews (six in-depth interviews). The ages of midwives ranged between 40 and 60 years. The first author made appointments with midwives, sought and received written informed consent and held in-depth key informant interviews privately in their offices. The interview guide explored how midwives recognised IPV, how they dealt with suspected or identified cases, what obstacles they faced in trying to recognise abused women and opportunities available to them and the health system to help abused women. Interviews were held in English but participants could switch to vernacular (Shona), especially when quoting women’s reported experiences. The interviews were digitally recorded, supported by written notes after each interview to complement the interview information, which was transcribed in preparation for data management and analysis.

Focus-group discussions with pregnant women

The researcher approached women at the six clinics where they queued to receive antenatal or postnatal care services and informed them about the study. We invited all women in the queue if they were less than 10 or randomly invited up to 10 if more. Consent
procedures followed for those who accepted the invitation. The first author led the discussions in the vernacular and a female research assistant operated the digital recording and took field notes, which contributed to the data. The primary goal of the discussions was to explore experiences of IPV during pregnancy and to help develop a tool for the broader quantitative study. Information about how health providers respond to IPV during pregnancy emerged during the discussions. A total of 64 women participated in seven FGDs held separately with pregnant and nursing mothers at the six health facilities.

Data analysis

We transcribed the digitally recorded data verbatim and parts of the transcriptions that were in Shona were translated into English. An independent translator double-checked the translations by listening to audio-records and back translated the sections of the transcript that were originally captured in Shona back into Shona for accuracy and consistency. The first author repeatedly read the transcripts and constructed codes in line with research objectives and the co-authors and additional researchers independently reviewed sections of transcripts and commented on the interim analysis. We used Open Code qualitative software to organise the data into codes and categories. Common themes from the interviews were identified and data were organised into categories. New codes were formulated as themes continued to emerge during the process of re-reading the scripts. Thematic content analysis was employed to systematically analyse the content of each theme.

Findings

Four core themes related to the possibilities of screening and/or intervening against IPV in these settings were identified: identification of abused women by midwives, women’s accounts of midwives’ interpretation of IPV, midwives’ experiences of responding to IPV in a planned intervention in antenatal care, including how this opportunity was lost, and the influence of culture and the law in identifying and responding to abused women.

Identifying abused women: current practice

All midwives stated that they had no specific training, skills or competence to recognise abused women during antenatal and postnatal care and that no facilities were conducting any form of screening for IPV. Midwives reported diverse ways of responding to IPV. They reported that they were able to recognise only the more obvious cases such as those who had bruises or injuries on their bodies. They indicated that physical violence was a bit easier to detect compared to other forms of violence: ‘Perhaps if there are quite obvious marks from battering such as some bruises’ (Anna, midwife, Mutenda Clinic). Visible emotions were also recognised as signs of problems in intimate relations as described, ‘And most of the times you will see this by crying’ (Fadzai, midwife, Chineka Clinic).

Midwives mentioned that they mainly relied on mothers’ willingness to reveal their experiences of violence, which mothers rarely did. They did not see it as their role to identify the violence: ‘Usually it is the mother who comes out if she has problems . . . We do not screen . . . It is for the mother to come out and say I have a problem at individual level’ (Bridget, midwife, Nekanda Clinic). Midwives recognised that women also do not talk about the abuse easily and that the violence is revealed in indirect ways such as when condom use was discussed with the women. As one midwife remarked:
‘They do not come in the open when it comes to the issue of sex after HIV tests. They take
condoms in fear because they say, ‘I will be beaten up at home if he finds condoms in my bag’.
They want to consult with partners first before taking condoms. Their partners accuse them of
prostitution if they find them with condoms’ (Carol, midwife, Bungu clinic).

Midwives reported that very few women spontaneously disclosed their experiences. One
midwife described how often she identified abused women in the following manner, ‘Very
rare. I don’t want to lie, very, very rare’ (Bridget, midwife, Nekanda Clinic). Although the
midwives assigned responsibility to women to disclose they also recognised their own role
and the dynamics of the provider-client relationship:

‘No I haven’t come across such cases [sexual and emotional violence]. Maybe they are not
putting it across clearly and I think with the time that we have we are not probing enough as
well. So we treat maybe on the surface and some of these issues go unnoticed’ (Anna,
midwife, Mutenda clinic).

This is further complicated by a lack of technical or professional language for dealing with
IPV as a health issue. Women tend to use non-direct language when describing partner and
sexual violence and midwives perceived and experienced difficulties in responding to such
a sensitive phenomenon in vernacular language during history taking. One midwife at
Vurinda Clinic remarked that ‘It is difficult to ask in Shona if they are experiencing partner
or family abuse’.

At one of the busiest antenatal care clinics (Madzive clinic), the midwife mentioned
that they were not asking violence questions because they thought the prevalence and
effects of violence during pregnancy were insignificant and did not require them to
intervene:

‘You know why I am a bit hesitant? It’s because usually what leads us to investigate is the
frequency of the patients complaining about that. When we don’t get the complaints usually
we don’t want to get involved . . . the frequency and occurrence of the problem, the
magnitude of the problem. [When] we are worried about that . . . [we] try to investigate.
Currently to be honest I haven’t had a case of a woman being mistreated by a husband . . .’
(Diana, midwife, Madzive clinic).

However, research suggests that most violence victims do not report their experiences
without being asked (Roelens et al. 2006) and, as noted above, midwives indicated that
they recognised that violence could be concealed. Midwives also recognised that one
needed a great deal of time and skill to identify a case. One midwife gained some
sensitisation and experience by witnessing a domestic violence non-governmental
organisation intervention at their clinic a few years ago. The exposure to this programme
in the clinic has made her view things differently and she consistently showed much more
empathy than the other midwives and realised that listening to patients was critical. This
she demonstrated when she said mothers only open up after a great deal of time and effort:

‘There are cases when someone would come with a queer complaint. It won’t be looking like
it’s the case. You will see that this person is not sick but there is something wrong. Then you
sit and discuss with that person that’s when she will open up. She will [then] say nurse I am not
feeling well because my husband is doing this and this. They open up that way.’ (Fadzai,
midwife, Chineka Clinic)

Midwives at Chineka clinic reported how suspicion of abuse was raised in the labour ward
when the women’s social problems with their partners were recognised. An example was
given when a midwife explained how a woman did not have the prepared items that the
father normally buys in preparation for the baby as non-buying of these items was
demonstration of father’s non-interest in the baby. She reported that they did not think it
was safe for a woman to be discharged home after the birth of her baby and had kept her at the clinic for some time until they were satisfied that she had some support from family.

'So sometimes you end up saying to her you are not going home. You don’t discharge her. You keep her there. Then when people come to visit her you try to find out if there is the mother. Or even someone who is very close to her. You then try to find out if there are problems at home. If she is facing any problems. Maybe … if she is having any problems with the husband’ (Fadzai, midwife, Chineka Clinic).

This response to ensure women’s safety is evidence of midwives’ own initiative despite working in a system that does not encourage them to do so.

The interviews reflect midwives’ mixed feelings about responding to IPV in antenatal care and suggest an unresolved tension between what is considered an appropriate professional response versus a private matter to which they as women felt obliged to respond. The majority strongly viewed it as adding another huge task to a skeletal staff at the facilities, despite also viewing it as important for pregnant mothers. One respondent reported: ‘Do you want to add more work to us? We treat patients and you want to involve us in those who are battered? It’s a lot of work, though good.’ (Ednah, midwife, Vurinda clinic). Midwives drew a line between their clinical work for which they trained and what they called social problems, including violence, which they did not think should be in their clinical practice. The amount of time required to assist women experiencing violence during the clinic sessions could be viewed as a constraint should IPV screening be implemented in antenatal care. A midwife who learnt that more time is needed to deal with women in abusive relations, which is not possible with the long queues during working hours at the clinic, said that talking to women outside of the clinic setting could be easier:

‘Some of them they don’t disclose. … If you take time with that mother that’s when you find out there is something wrong. That’s when she will open up. Personally, I live right here. There are some whom I see and they open up. Such that after being tested [for HIV] they come to me. She might not come to the clinic. She will come to my house … and then we sit down and discuss. I tell her the options and what she can do. When you are doing it out there they will be seeing it … differently … we will be talking about it at the same level at home … or some of them at church … ‘ (Fadzai, midwife, Chineka Clinic)

‘Nurses taught us not to refuse our husbands sex’

Providing health information and advice (which include nutrition, hygiene, physical exercises and sexual health education) during group or one-to-one sessions was an important aspect of education during antenatal care visits. Women’s experiences of these teaching moments revealed health workers’ poor recognition of intimate partner sexual violence. Negative gender stereotypes were inadvertently reinforced by midwives. While pregnant women expected to receive information on how to avoid violence in their relationships, they were advised and taught how to subordinate to their male partners and accept forced sex. As reported during FGDs with women:

‘We came yesterday and the nurses taught us not to refuse our husbands sex because they will go out to small houses [girlfriends]. Even when you feel you don’t like it [sex] just do what you can so that you keep him satisfied. Try to push until labour. These are some of the teachings that you will not be aware of. They [midwives] said breathe with two entrances [orifices] [Laughter]. Some [women] say ‘at six months I will no longer have sex’. Do not be fooled just try and give him sex so that he will be satisfied” (Doreen, FGD with pregnant women, Madzive Clinic)

Although this teaching was intended to reduce the risk of HIV infection, women were given the responsibility to ensure their male partners do not engage in multiple concurrent
sexual relationships. These recommendations from the midwives taught women that male sexual needs superseded their own sexual and psychological needs and the health of their unborn child. That such advice is at least sometimes taken to heart was revealed by one woman who said ‘As for me when I came from the clinic I changed at once. I am now doing what I can and not to deny him [sex]’ (Patricia, FGD with pregnant women, Madzive clinic).

However, whilst many women in the group discussion seemed to have accepted the advice, a few women rejected this subjugation and even reversed the teachings completely as shown below:

‘As for me I even lied when I came back from clinic. I saw that I was going to die [Laughter]. I told him that the nurses said ‘you should not abuse and force me to have sex’. If you force me, I will go back and report you to the nurses and you will go to the police. If you are taken by the police what will I do’. He understood me” (Makanaka, FGD with pregnant women, Madzive Clinic)

The data from the FGD with women are supported by the interviews with midwives. Diana, a midwife at Madzive Clinic reported that they advised women not to refuse sex during pregnancy as their clinical practice does not forbid sex during pregnancy.

The poor knowledge and understanding by health workers of what constitutes sexual violence clearly impedes their ability to recognise IPV. If midwives endorse some forms of sexual violence they are also unlikely to recognise other forms, even if women’s statements provide cues to experiences of sexual violence. The lack of knowledge on the part of midwives is indicated in the following quote:

‘With pregnant mothers, at times we wouldn’t even know that this [forced sex] is abuse because when we meet them they report [refusing sex] … we wouldn’t be able to know whether this person is being abused or not … When we ask them they say ‘the stomach is now too big and I don’t want anybody on top of it’ (Fadzai, midwife, Chineka Clinic)

**Dealing with cases: current practice**

In many cases, health workers did not take any action once they became aware of cases of violence other than just noting them as social problems. Some cases were reported to a referral (tertiary) hospital. External bodily injuries were reported to the police for prosecution and to the doctor for proper assessments. Musasa, a non-governmental organisation that works against gender-based violence in Harare, was also mentioned as a referral centre for abused women. As one midwife remarked, ‘If it is a serious case we can refer them to places like Musasa but we have never referred anybody’ (Bridget, midwife, Nekanda clinic). At Mutenda clinic, there used to be a non-governmental organisation that employed midwives and counsellors trained in IPV counselling. They holistically helped abused women by counselling them and providing financial resources and other support needed. Some midwives remarked that since it was a matter of domestic issues, it was proper to refer such issues to traditional or family courts as per their culture. The midwife at Nekanda clinic reported, ‘We usually advise them to use the support systems in their homes- aunties, grandmothers’.

Midwives felt that once violence cases were identified, dealing with those cases could be an issue to grapple with as they had no faith in the criminal justice system. The perceived reluctance of the courts to deal with reported cases was an obstacle to responding to violence. The midwife at Vurinda clinic stated that she had ‘never seen courts taking these issues seriously, so no seriousness in these violence cases’.
perception influenced their thinking that abuse cases would not be fairly and satisfactorily dealt with.

‘And this organisation is no longer coming to screen’

A midwife at Chineka clinic described how a non-governmental organisation working at their clinic helped their clients who were abused and how the health system never tapped this opportunity for the midwives to refer or assist abused women after the non-governmental organisation left. She reported:

‘We used to have this organization. . . They were after these pregnancy issues. They could see them [pregnant women] from the initial bookings and talking to them and giving them information about . . . any problems at home with the husband. They were here to assist them. It’s the one that looked after that. As for us we don’t . . . And this organisation is no longer coming. I don’t know what happened . . . They used to come during the initial visit and . . . subsequent visits . . . They would also hold interviews with mothers in the post-delivery section especially the unbooked mothers; they would want to know the reasons why they were not booked. Some mothers would say I didn’t have the money because my husband was refusing to give me the money. They would ask if he was bringing her food. . . . The organisation would pay a certain amount and the other amount would be paid by the City of Harare [health department] . . . (Fadzai, midwife, Chineka Clinic)

In this case, the midwife lamented over an opportunity lost in which they could have learned from the non-governmental organisation they worked with to screen and deal with IPV cases. She also reported that she often recommended to the city health authorities to introduce a screening programme, a recommendation that was never considered:

‘So we have talked about it [IPV screening] so that it is included in our planning. . . . the days when that organisation came . . . we left those issues to them because they were trained and they had a trained nurse and midwife. So to us as Facility F . . . we now see that it’s [IPV] not being talked about . . . But I think we need to include that in our programme . . . Because we believe that some of them have got problems . . . ‘We were never put onto that programme . . . though we just talk about the problems we face at ANC when we submit our reports’ (Fadzai, midwife, Chineka Clinic).

An opportunity to integrate screening into the maternity care programme was lost. The midwife explained how the absence of the programme prevented them from assisting a woman:

‘Like this person I still remember she was saying her husband has another wife but she is the first wife [and was being neglected]. . . . The husband was not giving her money to come and register. In the end she had to go and seek money from her brother in Mazowe. That’s when she came to register but we used to see [at the clinic] that she was pregnant but not booked. And we were now in a dilemma as to what we were going to do about her. To someone who opens up that she does not have the money the Council [Health Department] says that she can pay half and then pay the rest after delivery. [She then travelled a long distance by bus and foot to get some money whilst she was nine months pregnant]. That’s when she came to register and to make matters worse she had some complications and we transferred her to Mbuya Nehanda [tertiary hospital]’ (Fadzai, midwife, Chineka Clinic)

Booking pregnancies in antenatal care involved paying a registration fee of US$50, non-payment of which would deprive a pregnant woman of access to antenatal care services. In this case, the nurses watched her situation helplessly, recognizing that she was not booked due to financial problems. Further inquiry showed that nurses suspected that the situation at home and the travelling when she had problems walking contributed to complications leading her to be referred to a tertiary hospital. This case also shows how policy and structural factors together with gender-based violence create women’s vulnerability.
Culture, confidentiality and the law

On probing, midwives reported a number of cultural factors influencing responses to IPV. They described women’s non-disclosure of domestic issues as a ‘culture of silence’. They perceived this to be one of the major challenges in responding to IPV at the clinic. A midwife said: Aah I don’t know whether we will get that many women who will be open about that. Most women are secretive about domestic violence.” (Bridget, midwife, Nekanda Clinic). Another midwife reported similar difficulties and recognised the health implications of non-reporting saying:

‘They don’t open up. . . . Because like now she could have been admitted [she referred to a woman who miscarried but after investigations it was discovered that she was experiencing domestic violence]. You sit down with her and try to talk . . . they don’t open up but you can clearly see that there is a problem’ (Fadzai, midwife, Chineka Clinic).

However, beyond – and compounding- a culture of silence regarding domestic violence, an important reason for women’s reluctance to report appears to be related to midwives not being trusted with the information. Women suspected that nurses do not keep their domestic stories confidential and fear of the repercussions from their partners should they discover that the women reported the abuse was a barrier. Women also feared that such issues could spread into the community since a number of midwives lived in the same community with them. Midwives added that women feared that if they disclosed violence at the clinic, their husbands would end up in jail, thereby risking their family life and economic livelihoods. For example, midwives reported:

‘There is also a tendency of women protecting their husbands because of this Domestic Violence Act. The moment you try to talk and ask them they think you want to drag their husbands to the police’ (Diana, midwife, Madzive clinic).

It was also noted that violent experiences that happened between a woman and her partner were regarded as domestic and could not be discussed with other people outside. One midwife mentioned, ‘They may have this negative attitude of saying I cannot discuss my family issues with the nurse’ (Fadzai, midwife at Chineka Clinic).

Participants in the FGD and our observations revealed that there was limited infrastructure to facilitate privacy during history taking at five of the six clinics studied. It was observed during participant observation and in FGD women explained the lack of a private space during interactions with midwives. All services took place in close proximity of other pregnant women seated on benches waiting their turn. In general, most of the activities of the antenatal care visits took place in a foyer/hall or entrance, which is also used by visitors and staff of the maternity ward and clinic offices. Any disclosure of personal or domestic information would be heard by others on queue.

Discussion

The study presents a situational analysis around midwives and their thoughts of and experiences with identifying and responding to IPV against women during pregnancy, as well as the experiences of their clients. The study reveals the complexity and difficulty in responding to IPV in antenatal and postnatal care in a resource-limited setting. It showed that responding to IPV in antenatal settings is difficult for both health-sector related reasons and midwives’ own embeddedness in a patriarchal culture which normalises IPV. Challenges include midwives’ lack of specific education and training; high workloads and time pressures; the health system’s lack of infrastructure, privacy, guiding policy, support, staff and other resources; midwives’ own beliefs and previous experiences;
women’s non-disclosure of domestic issues; and cultural taboos. These multiple-layered complexities created barriers at different levels and any intervention would need to address these barriers in an integrated and comprehensive way. However, the potential impact of sensitisation and informal training could be seen from Facility F staff, who acquired some knowledge of responding to IPV by observing and interacting with trained staff of the non-governmental organisation that ran a screening programme at their clinic. This intervention programme, although directed at the pregnant women also had an unintended positive effect on the staff.

Our findings echo earlier findings on the lack of gender-based violence training and education among midwives (Bacchus, Mezey, and Bewley 2002; Erickson, Hill, and Siegel 2001; O’Reilly 2007; Stenson, Sidenvall, and Heimer 2005; Waalen et al. 2000), reflecting health policy silence regarding gender-based violence. This study suggests that initiating screening as suggested in developed settings would be challenging in resource-limited settings. Research in South Africa demonstrated that screening all women seeking care is expensive, while responding to specific cues could help address the problem with less human and financial resources (Joyner and Mash 2012). The context of staff shortages makes the additional task of screening, especially for a non-biological problem, much more difficult to accept, hence the need to develop practices that tap into nurses’ clinical training and practices and also those that respond to the needs of patients. In busy public health settings, it is possible that not all women need be screened but that those at high risk be identified. It is encouraging that midwives themselves felt that training of nurses could play a role, as some were sensitised by being exposed to services that support IPV survivors. Also, whilst midwives were not trained in gender-based violence, some were able to assist or refer abused women after recognising cues.

The midwives’ opportunities to address IPV in health promotion lessons were, however, squandered as pregnant women in the study reported being advised to submit to sexual violence perpetrated by their partners. The opportunity could have been utilised positively to empower pregnant women to negotiate safer sex if the midwives believed it to be the right thing and also if they knew how to do it. Midwives’ main concern was HIV prevention by preventing men from having multiple concurrent sexual relationships, which could create HIV risk for women. However, this was done without any consideration of its impact on sexual violence. These and other data from our study suggest that midwives perceived sexual violence as a normal phenomenon and that the link between sexual violence and HIV-risk among pregnant women needs to be better understood in the context of improved antenatal care. The opportunity of group health promotion lessons with each antenatal visit could have additional benefits if midwives were trained to offer IPV group awareness and counselling.

The study revealed health system shortcomings regarding responding to and assisting abused women. Firstly, we find a disjuncture between health system policy and health workers’ operations. Whilst midwives recommended to health managers the need to implement a programme that would help them to identify and assist abused women, the latter did not see it as a priority. The fact that pregnant women without money could not afford to access maternity health services and the inability of nurses to at least bring those not able to pay to the attention of facility management for waiver of fees (as per the local health system policy), reveals significant health system failure. It also meant that pregnant women missed the opportunity of antenatal care which has a huge impact on maternal and child health since those who failed to pay antenatal care fees only accessed care when in labour or delivered at home. Secondly, the non-sustainability of new health interventions that run parallel to the existing system in antenatal care deserves attention.
The non-governmental organisation that operated at Facility F was a good example of an unsustainable parallel intervention. There is need to integrate such interventions in existing health care programmes for a sustained service.

Despite evidence showing patients’ positive attitude towards domestic violence screening (Gielen et al. 2000; Ramsay et al. 2002; Webster, Stratigos, and Grimes 2001) health workers in our study reported women’s perceived non-disclosure of violence as a major challenge. Whilst providers cited a culture of silence on the part of pregnant women, the latter reported unavailability of private space to discuss their personal and domestic problems with their providers and this was also illustrated by the fact that some women would follow a nurse at home or church to discuss their problems. Structural and infrastructural issues in the health system must be addressed to enable responding to IPV in antenatal care. The fact that pregnant women in the study had low incomes, many of them unemployed and dependent on their partners, could also explain the perceived fear to disclose their abuse experiences. For women, disclosing their abuse experiences implied that their partners could be jailed thereby ruining their economic livelihoods. They also feared further abuse after they reported their partners as abusive. The perception of some respondents that other government departments were not taking domestic violence seriously was corroborated by Chirawu (2006), who argued that there has not been a single case of IPV brought to the courts for prosecution by 2006 since sexual offenses law was enacted in 2001, despite high prevalence of IPV in Zimbabwe.

Midwives seemed to emphasise that reporting violence results in progressing to court as the only outcome, yet attrition studies (Jewkes and Abrahams 2002) show that most women do not want to progress to the court system. Midwives did not recognise that they could play a significant role just by listening to women narrating their problems. Hindin (2006) found that there was need to enter into a trusting relationship with the women before screening. The need for appropriate and culturally relevant ways of asking the screening questions has been reported in Japan (Kataoka et al. 2004) and in the USA (Hindin 2006). The midwives in our study raised difficulties asking questions in their vernacular, which may suggest that any screening tool designed should be culturally relevant.

To the best of our knowledge, this is the first study in Zimbabwe to look at perceptions and experiences of midwives and pregnant/nursing mothers regarding responding to pregnant women for IPV. Further research is needed to understand the non-health system obstacles to IPV responses such as the views and experiences of the police, courts and organisations that provide care to abused women. The study could have also looked at women’s experiences with midwives in detail to understand better the provider-client interface.

Conclusion

The study identified obstacles to responding to IPV in antenatal care at the level of the health system, midwives and pregnant and nursing women and the role of a patriarchal culture that subjugates the needs of women and that in the clinical setting, reproduces hierarchies between nurses and patients, which further silence women experiencing IPV. Lack of education and skills to screen for violence, the health system’s limited human resources capacity and its failure to promote screening, and role conflicts reflecting a deep ambivalence over whether IPV is a health problem, a social problem or simply ‘normal’ were identified as the major obstacles to responding to IPV. The study highlighted the importance of antenatal and postnatal care sessions as opportunities to identify and
respond to IPV issues. Training and supporting nurses to pay attention to cues in responding, in a sensitive caring way, to IPV may be a more feasible first step than universal screening. Institutional reform that will lead to training midwives and integrating IPV responses in antenatal care services could help in addressing IPV in antenatal care in culturally appropriate and sensitive ways.

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References


Résumé

Le moment de la grossesse est pour les sages-femmes une opportunité d’identifier les violences infligées aux femmes par leurs partenaires et d’offrir à ces femmes du soutien en leur proposant des solutions. Cependant, dans les pays à revenu élevé, la plupart des interventions en soins prénataux se déroulent dans des services spécialisés et privés, en dehors des réalités结构化和culturelles des environnements spécifiques aux pays en développement. Nous rendons compte d’une étude exploratoire qualitative conduite dans des établissements publics de soins prénataux à Harare, au Zimbabwe, pendant laquelle des entretiens en profondeur avec des sages-femmes et des groupes de discussion thématique avec des femmes enceintes et en postpartum ont été menés. Les données ont été enregistrées et retranscrites textuellement, puis examinées par l’analyse thématique de contenu. Nous avons découvert que dans les services de soins prénatals, l’identification des violences exercées par les partenaires et les réponses apportées aux femmes qui les subissent sont entravées par l’inadéquation des ressources humaines, financières et infrastructurelles, ainsi que par le niveau de formation pour les sages-femmes, sur la violence basée sur le genre. Les sages-femmes avaient des opinions différentes sur leur rôle. Certaines d’entre elles considéraient ces violences comme relevant d’un problème non clinique, social et domestique n’exigeant pas leur attention, tandis que celles qui avaient été sensibilisées au problème sentaient que ce dernier pouvait facilement les submerger. Il semble difficile pour les sages-femmes exerçant dans ce contexte d’apporter une réponse complète aux femmes qui subissent des violences infligées par leurs partenaires. Mais il semble aussi que les sages-femmes sensibilisées au problème pourraient intervenir en présence d’indices de ces violences et, en définitive, aider les femmes abusées, dans une approche qui tienne compte de leur culture.

Resumen

El embarazo ofrece a las parteras una oportunidad para reconocer y apoyar a las mujeres que han experimentado violencia íntima de pareja (VIP). Sin embargo, en los países de altos ingresos la mayoría de las atenciones prenatales es llevada a cabo por especialistas particulares, lo cual impide...
enfrentar las realidades estructurales y culturales de los países en desarrollo. En este artículo, las autoras examinan un estudio cualitativo exploratorio realizado en las instalaciones de salud pública de Harare, Zimbabwe. En este sentido, se realizaron entrevistas a profundidad con parteras y se llevaron a cabo charlas con grupos focales integrados por mujeres embarazadas y por mujeres en postparto. Las grabaciones fueron transcritas literalmente y revisadas utilizando el análisis de contenidos temáticos. Se constató que la identificación y la respuesta a la VIP en la atención prenatal encuentran restricciones debido a los inadecuados recursos humanos, financieros y de infraestructura, así como al limitado apoyo destinado a la formación de parteras en violencia por motivos de género. Las parteras expresaron diferentes opiniones respecto a su rol: algunas creen que la VIP es un problema extraclinico, social y doméstico que no requiere de su atención; aquellas que han sido sensibilizadas imaginan que el problema podría abrumarlas. En este contexto, sería difícil esperar que éstas lograran una respuesta integral a la VIP; pese a ello, quienes están sensibilizadas podrían responder a las señales de violencia y apoyar a las mujeres en formas culturalmente sensibles y apropiadas.
CHAPTER 5
DISCUSSION

5.1 Introduction
This section discusses the findings in relation to the study objectives and the theoretical framework. The high rates of violence found in the study are first discussed in the context of pregnancy vulnerability. I argue, in this epidemiological and public health work that is situated in the macro and feminist framework, that gender inequities emanating from patriarchal domination of women by men influence intimate partner violence (IPV) during pregnancy. Later, a discussion of the complexity of the relationship between HIV and IPV and how the health sector perceives IPV during pregnancy is presented. Finally I discuss the relationship between past forms of violence and IPV during pregnancy.

5.2 Dynamics of IPV in Pregnancy
Both the systematic review and the survey in Zimbabwe found higher rates of IPV during pregnancy. In the systematic review, some variations in the prevalence were noted, with wide ranges (2-57%), possibly because of different cultures and beliefs in the different tribes in which the data were collected in addition to methodological limitations as summarised in Paper I. Torres, Campbell et al. (2000) noted how prevalence during pregnancy can be influenced by cultural beliefs among multicultural and different ethnic groups. The survey in Zimbabwe found significantly higher rates of IPV overall compared to previous studies conducted in Zimbabwe and globally. The higher rates which I believe primarily illustrate a systematic use of violence by men to subjugate their partners and a ‘culture of violence’ in relationships could be in part explained methodologically as well. Our study referred to the most recent pregnancy with interviews conducted soon after delivery making it easy to remember in an interview. Other studies in Zimbabwe (Watts, Keogh et al. 1998, ZIMSTAT and ICF 2012) and elsewhere measured pregnancy violence long after delivery for example up to 5 years after delivery thereby introducing recall bias with non-severe forms of violence possibly not easily remembered and disclosed in the interview. Other studies reporting low prevalence of violence during pregnancy interviewed women while they were pregnant (sometimes early in pregnancy) and possibly missing experiences of violence that took place after the interviews but before delivery (Ezechi, Gab-Okafor et al. 2009). Our qualitative research showed sexual conflicts and violence in the third trimester and therefore this period must be fully covered in research on IPV during pregnancy.

Secondly, interviews were conducted outside of the home in a maternal health setting. This setting is mostly associated with greater disclosure compared to home, where women fear to disclose violence to the researcher, in case it will be known to their partners and they would possibly be subjected to further violence (Covington, Hage et al. 2001, Dunkle 2004, Alhabib, Nur et al. 2010). Our review (Paper I) and another global review of studies on IPV during pregnancy (Taillieu and Brownridge 2010) support this finding. Other factors reported in literature to have an effect on prevalence rates include the level of development, poverty and socio-demographics. For example, interviews conducted in less industrialised and poor communities (Peru, Tanzania and Ethiopia) yielded higher
levels of violence in the multi-country WHO (2005) study while having a predominantly poor, younger, and less educated sample was associated with higher levels of violence in the United States (Shumway 1999, Covington, Hage et al. 2002), Peru (Perales, Cripe et al. 2009) and Pakistan (Farid, Saleem et al. 2008). The predominantly poor women in our sample with 70% unemployed and dependant on their partners could be another reason for their vulnerability to IPV as previously found in South Africa (Jewkes, Sikweyiya et al. 2011). However, the relationship between socio-demographic factors and IPV in our study (Paper II and III) was not very evident as this study controlled for these variables. A more specific analysis will be needed to assess the relationship.

Lastly, the design of the study facilitated more disclosure of violence by utilising an instrument with multiple behavioural questions about a relationship between a woman and a partner. A review of abuse screening tools showed that studies which use few questions and asked questions that make women identify themselves as abused, battered or raped by partners were more likely to underreport violence (Weiss, Ernst et al. 2003, Reichenheim and Moraes 2004). The review by Reichenheim and Moraes (2004) noted these limitations of such tools. In addition, the study measured violence during the entire pregnancy period since women were interviewed soon after giving birth which is likely to have increased coverage of violence reporting. Some of the characteristics of the study design which previous evaluations (Taillieu and Brownridge 2010) saw as yielding higher disclosure rates include having qualified and trained interviewers to administer the questionnaire, compared to the self-administering of questionnaires or having untrained interviewers. The interviewers who, on average, were of the same age as the participants (26 years), might also have encouraged disclosure of violence during research, as participants could easily identify with them. In the qualitative study the female research assistant who was also 5 months pregnant was able to use her pregnancy situation to encourage participants to disclose their situations.

The study found one of the highest prevalence of IPV during pregnancy as well as after disclosing HIV status during pregnancy. Although most violence types reported in paper II, III and IV were minor on the scale of violence types (Straus, Hamby et al. 1996) the repeated nature of the violence experiences throughout the pregnancy is a cause for concern. The highest number of events reported in our study was 22 out of the possible 39 in our questionnaire schedule with a third of women experiencing physical and or sexual violence at least three times and one in ten experiencing IPV six or more times during the pregnancy. Given that pregnancy is only a period of nine months and that generally pregnancy is confirmed only at the end of the first trimester, the high number of abusive episodes in such a small period of time is a huge concern. Reporting severity of violence based on high frequency of events is a unique contribution of this study to the understanding of IPV during pregnancy. It helps us to view violence as an on-going experience in families or partnerships (Papers II and III) as compared to seeing a woman as either abused or not without information on how often and to what extent. Many past studies measured violence as a once-off event yet the study identified it as an on-going practice in women’s lives during pregnancy. It further helps to assess how chronic the
IPV problem is so that appropriate ways of addressing it may be instituted. The repeated nature of IPV during pregnancy may have very negative emotional, gynaecological and mental health effects on the mother and negative effects on the baby.

The high frequency of IPV during pregnancy could be explained by the widespread domination of women by men in patriarchal societies. The beliefs and norms which society holds as suggested in our qualitative research are shaped by patriarchy (Paper IV), for example, women in focus group discussions reported that during pregnancy, men wanted sexual intercourse more than before pregnancy as they felt more pleasure in the woman’s ‘increased heat inside the vagina’. In contrast, due to the discomfort and pain during pregnancy women generally liked sex less often than before pregnancy thereby increasing complexity, quarrels and conflicts during the pregnancy situation as, reportedly, men will enforce what they wanted.

The study contributes to the debate on whether pregnancy increases or reduces violence (Martin, Harris-Britt et al. 2004, Taillieu and Brownridge 2010). The results show a different trend than observed by other researchers with increase in the prevalence of sexual and emotional violence rather than physical violence (Paper II and III) although overall, physical and/or sexual violence combined did not differ from pre-pregnancy reports. This is supported by the predominantly sexual and emotional violence reported in Paper IV as in the literature (Martin, Harris-Britt et al. 2004). During the qualitative research, sexual and emotional IPV were the most commonly reported forms of violence, hence Paper IV did not focus on physical violence and less physical violence was reported by midwives (Paper V) as was also found with respect to the prevalence of different kinds of violence after disclosure of HIV status (Paper III). This may be explained in several ways. Firstly, based on the traditional patriarchal male domination over women, sexual violence is not usually viewed as violence in marital relationships as men feel that they “own a wife” and that rights over a woman’s sexuality are socially transferred to him upon marriage through bride price payment. As noted by Kambarami (2006) it is believed among the Shona people that if a man has extra marital sexual intercourse, it is blamed on the woman who failed to satisfy his partner sexually to stop him from looking for other women. This might have had increased sexual violence during pregnancy. In this study it was shown how pregnancy brought along situations that increased women’s vulnerability to sexual and emotional abuse and this was confirmed in both qualitative and quantitative studies. The decrease in physical violence reported throughout the study (Papers II, III and IV) may be explained by the fear of the negative health consequences such as injuries and fear to lose the baby due to physical harm (Olagbuji, Ezeanochie et al. 2010). Indeed, information in the focus group discussions, seem to point that men feared to lose the baby more than anything else.
5.3 Pregnancy as a Vulnerable Period?

The study contributes to ongoing debate on whether pregnancy is a time of respite or vulnerability (Edin 2006, Taillieu and Brownridge 2010). This study shows that researchers must not just seek simplistic answers but rather understand that IPV during pregnancy is a complex phenomenon that is dependent on the social and cultural context in which women live. The WHO (2005) study across ten countries in the world showed that certain countries have different forms of violence that are more prevalent than others. This informs us why the epidemiology of this public health problem must be studied in each setting so that setting-specific interventions may be planned. This study provides the insights for this form of IPV in Harare and Zimbabwe and shows how the pregnancy period brings with it situations that trigger conflict in a partnership potentially leading to more sexual and emotional violence. The physical and emotional changes in women during pregnancy bring with them more demands for more or different economic, social and sexual requirements in a partnership (Edin 2006) which normally place pressure on men who, during the time of our study, were facing economic hardships. As discussed earlier, men use violence when they fail to provide economically in order to feel they remain in charge of the household and the woman since dominance over women provides them with some form of affirming their manhood. For example, a pregnant woman required US$50 to register for antenatal care in addition to buying pregnancy and birth related and household items which were very difficult to raise for most men. Paper IV gives an account of a midwife who reported a story of her client whose partner had another wife and abused her in various ways including economic neglect. The woman ended up having pregnancy complications and miscarrying which the nurses suspected was a result of her abuse. In addition, the woman was not able to access maternal fees until she walked a long distance to get money from her brother. She needed the fees to access antenatal and labour care from the public health system and would not have been helped if she had not paid. This example helps to illustrate how multiple factors contributed to women’s increased vulnerability during pregnancy. It is important to also note that the woman suffered abuse perpetrated in a health system by being denied health care because of her non-payment of fees. This shows the complexities and hardships women encounter during pregnancy.

Another situation that supports the view that the changed relationship dynamics in pregnancy may trigger violence is testing for HIV during pregnancy. Testing for STI and disclosure of results to an intimate partner were always one of the ways to promote sexual and reproductive health and in the early 1990s before PMTCT was rolled in Africa, a study in Kenya that promoted testing and encouraged disclosure after HIV testing found increased abuse after disclosure. This study later advised women not to disclose (Temmerman, Ndinya-Achola et al. 1995). Two decades later with provider-initiated HIV counselling and testing being part of basic antenatal care, most health systems have not made efforts to initiate effective interventions to minimize the risk for abuse after disclosure. Counselling remains the only measure in which risk of violence in partnerships is considered. The gendered nature of HIV testing and disclosure which made women to feel that HIV testing was “compulsory” during pregnancy in the new model of testing called...
provider-initiated counselling and testing of pregnant women requires further attention. This approach to HIV testing pressured women to test and disclose their status to their partners for good reasons including prevention of HIV transmission to the baby, partner and avoid re-infection of the infected mother. However, men often refused to reciprocate the prevention process by refusing to test for HIV, and in cases when they tested, they withheld their results leading to conflicts (Paper IV). Such conflicts may have contributed to the high levels of IPV reported in this study (Paper II and Paper III). Studies conducted in Zimbabwe show that only 4% of the women of childbearing age test for HIV before pregnancy (Munjanja, Nystrom et al. 2009). It is due to the pregnancy situation that we see about 65% women testing for HIV in antenatal care through the voluntary counselling and testing approach and this increases to almost all pregnant women (99.9%) through the provider-initiated counselling and testing (Chandisarewa, Stranix-Chibanda et al. 2007). This places women at a greater risk of IPV after disclosure as disclosure is gendered and is subjected to men’s interpretation of the woman being responsible for her infection, with women often being labelled a sex worker. The low testing rates before pregnancy may indicate that women fear problems associated with knowing their HIV status, such as IPV. Therefore the health system must provide adequate options and support to women to ensure HIV testing does not bring unintended consequences like violence. It is regrettable that the opt-out provider-initiated testing approach which encourages HIV testing and disclosure and actually sees almost all women testing, does not provide social care (against violence) after testing.

We recorded higher prevalence of IPV during pregnancy (paper II) than after HIV disclosure (paper III) although these figures were not calculated with similar samples due to some women not disclosing their status or not testing for HIV. The differences in prevalence of IPV can mean real differences of experiences of IPV or differences due to methodological issues - that there was more time to measure IPV during pregnancy (nine months) than there was time to measure IPV after HIV disclosure as many women tested late in their pregnancy, on average five months into their pregnancy until delivery.

5.4 The Relationship between Gender Equity and IPV

Our results show high levels of gender inequitable beliefs and practices among our participants and their partners as measured on three scales namely attitudes towards wife beating, attitudes towards sexual abuse and partner controlling behaviours. In addition, high levels of gender inequity in reproductive health were demonstrated by most respondents endorsing that their partners controlled decision-making to become pregnant, to visit antenatal care and to use contraception. Strong associations between all these gender inequity actors and IPV during pregnancy were observed (Paper II). Even stronger associations were observed with severe IPV (Paper II) and severe IPV after HIV disclosure (Paper III). Taillieu and Brownridge (2010) noted that the level of gender inequality in the society has an effect on IPV in general and IPV during pregnancy in particular is also a function of these inequities. There are predominantly unequal
gender relations and higher levels of partner control in Zimbabwe with almost a quarter (23.7%) of the women endorsing at least 3 of the 6 partner controlling behaviours in a population survey, while only a third (33.6%) reporting no partner control (ZIMSTAT and ICF 2012). These gender norms are seen in many aspects of Zimbabwean society and it was demonstrated in the way health education lessons to pregnant women were delivered (Paper V). Despite the fact that midwives as health providers had not been sensitised to provide gender-based-violence services to abused women, they unintentionally gave women advice that encouraged women to be abused thereby contributing to the vulnerability of women. IPV during pregnancy could therefore be seen as a function of an unequal society’s reproduction of itself with nurses forming part of the system that helps in maintaining the subordination of women. Due to the fact that midwives also came from the same society and held similar beliefs with their client population (Paper V) they also held similar traditions with the male partners who abused the women because of their lack of recognition and awareness on how the health system may prevent rather than promote the violence. This was demonstrated when they advised women not to refuse their partners sex even if women felt they were in pain during pregnancy, as women were responsible to ensure their partners’ sexual pleasure and through this they would prevent partners from seeking sexual intercourse outside the home and invariably decrease risk of HIV infection for both of them.

Women who were abused during pregnancy, were more likely to report being prevented from accessing antenatal care and using contraception. This has been shown to have enormous negative impact on health of pregnant women and their unborn children (Campbell 2002, Heise, Ellsberg et al. 2002). This relationship demonstrates the extent of the inequitable gender relations in a relationship. Although our study did not assess the health status of the women who were prevented from accessing antenatal care, there is no doubt that such gender inequity and violence may result in poor pregnancy and health outcomes. Gender inequalities which resulted from the patriarchal domination of men over women’s lives were also a result of the worsening economic situation in Zimbabwe during the time of study in which more than 70% women in our study were unemployed and were mostly dependent on their partners (Paper IV and Paper V). Focus group participants described situations in which men used their economic advantage to sexually abuse partners. Evidence from our qualitative research (Paper IV) shows an example of a woman who narrated how it was easy for a man to chase her from the home while pregnant, if she did not consent to his request to have sex. Fear of being chased from home and being divorced by a partner who provides all her economic needs, forced the woman to consent to having sex, despite the woman complaining of painful sex during late pregnancy. The economic situation in which an estimated 80% were not gainfully employed might have eroded men’s traditional source of power as heads of households. Feminist theorists have put forward an argument that when men fail to control their partners through the provision of resources in the household, they usually turn to use violence to control women (Jewkes, Sikweyiya et al. 2011).
Connell (1987) uses the concept of hegemonic masculinity to explain dominant forms of masculinity in a society which takes on power in relation to women and other non-hegemonic masculinities. While hegemonic masculinity is believed to be contextual in most societies it is powerfully linked to male control and dominance over women, including control over women’s sexuality and reproduction. Men dominate women through a complex process in which the dynamics of power inequality are reproduced by both men and women who both continue to perform and are invested in such practices of male dominance and women’s submissiveness in patriarchal societies. Because these practices are normative, men and women are both invested in practicing these roles and relationships and both suffer punishment such as social ostracisation if they resist normative gender roles in their relationships. This argument helps us to understand why abused women in our study endorse attitudes towards wife beating, sexual abuse or male controlling behaviours.

The practice in Zimbabwe and other patriarchal societies of socialising women in ways that teach them to be subordinate to their partners is also to blame for the violence during pregnancy. Kambarani (2006) noted that in Zimbabwe’s Shona culture, girls are taught how to sexually please their future husbands, and not really to have pleasurable sex themselves. Njovana and Watts (1996) and Watts, Keogh et al. (1998) also noted that women were punished for showing that they enjoyed sex too much as it is contrary to norms. Similarly, the double standards in which men are rewarded for being sexual, while women are punished for positively expressing their sexuality and the lack of a positive discourse on female sexuality has been reported in South Africa and globally (Lesch and Kruger 2004, Kahn 2008, Shefer and Foster 2009). The effect of these gender inequitable practices are reflected in our research in the pregnancy context (Paper IV and Paper V) with women having sex to please their partners and lure them from having other sexual partners not necessarily to please themselves. Women revealed that they forced themselves to have sex because they were sometimes ill, unwilling or uncomfortable to have sex. Midwives, the extended family and the church reportedly strengthened this notion, which saw women falling victims to their partners. This helps us to see how inequitable relationships reproduce themselves.

Although the perspective of dominance of gender inequity explains more of the data in this study, there are exceptions of women who were very assertive, empowered and were protected from IPV. The concept of agency in the structure agency theory has been used to explain the power of the disadvantaged to positively influence their lives and empower themselves (Giddens 1979, Long and Long 1992, Long 2001). The concept of agency, is used in this context to refer to the power of women, in a predominantly male dominated context or relationship to resist IPV. This is shown in two examples. Firstly, some participants demonstrated agency by resisting violence and causing male partners to view themselves as being sexually abused. In Paper IV we reported women who could ‘stand their ground’ when it comes to sexual intercourse by having it so many times that their partners felt it was unbearable as they went to work tired all the time. Men could not resist this pressure because women informed them that they were informed by their midwives to have sex.
several times ‘to help grow the foetus’. In this way, some women successfully negotiated pleasurable sex and illustrated the resistance to a notion that women are asexual and lack a positive discourse on their sexual desires and pleasure which some African feminists have begun exploring (McFadden 2003, Pereira 2003, Lewis 2005, Arnfred 2009, Lewis 2011). In Paper V we also reported that women resisted IPV by refusing nurses’ advice to accept coerced sex. They dropped the nurses’ advice because they felt the advice was wrong and would only lead them to being abused. One woman rather warned her partner not to abuse her and threatened to report him to the police and health officials if he abused her. Teaching women gender equity may help to resist IPV and negotiate gender equitable relationships. The IMAGE (Pronyk, Hargreaves et al. 2006, Pronyk, Kim et al. 2008) and Stepping Stones (Jewkes, Nduna et al. 2008) studies in South Africa are good examples as they reflect the benefits of gender equity education and increasing access to economic resources in reducing IPV. Although socio-demographic variables linked to poverty were not statistically significant in the quantitative analysis, possibly due to endemic poverty, the qualitative study showed that the woman’s low economic position vis a vis the partner’s was exploited by abusive partners as women were dependant on their partners. This finding is supported by the evidence that economic emancipation can help to reduce women’s vulnerability and violence. In South Africa, vulnerable women’s access to the child support grant has been evaluated and results show its ability to reduce women’s vulnerability (Goldblatt 2005) while in Peru, the Juntos programme of cash transfers was successful in tackling child poverty and vulnerability (Jones, Vargas et al. 2008).

The findings in our quantitative survey are supported by the information from the qualitative research in that the HIV positive women who had had three or more sexual partners in their lifetime were less likely to report IPV compared to those who reported fewer sexual partners. These more sexually experienced women could have been more assertive given their sexual experiences that they could also ‘stand their ground’ and resist violence from their partners. It could also be that having had many partners before she had learnt to select a less or non-abusive partner who possibly understood her HIV positive status hence less abuse. These cases demonstrate agency in a society dominated by the patriarchal structure which thrives on gender inequities and violence in relationships. While more research is needed to understand male control during pregnancy in detail, improving partners’ communication and non-violent conflict negotiation skills in relationships is urgently needed to reduce the use of violence in conflict management.

5.5 IPV, HIV and Sexual Risk

The relationship between HIV and IPV is complex and difficult to understand especially in a cross sectional study. We found IPV associated with risk factors for HIV infection and effects of HIV testing, that is, disclosure, but not HIV status itself. We reported a higher prevalence of HIV and a higher prevalence of IPV in our postnatal sample. The higher prevalence of HIV in antenatal care reflects the situation in the country as a higher prevalence country in general (15%) and among 15-49 year age group (17.7%) (ZIMSTAT and ICF 2012).
Although we reported positive associations between HIV and IPV in Africa in five out of the eight papers in our systematic review (Paper I), three papers did not find an association, possibly due to methodological limitations in the papers such as small sample sizes which could not detect differences (Ntaganira et al. 2006), or assessed HIV variables as reported in the interviews. In addition, we did not find an association between HIV status diagnosed during pregnancy and IPV experiences during pregnancy in the current Zimbabwean survey (Paper II). There could be other explanatory variables that we did not measure that led to this insignificant association or that the sample size was not adequate to show significant difference. Three different studies that analysed recent demographic and health survey data across the globe and in Zimbabwe in particular did not find an association between IPV and HIV (Harling, Msisha et al. 2010, Ngwaru 2010, Nyamayemombe, Mishra et al. 2010, Kayibanda, Bitera et al. 2012). However, these demographic and health survey based studies were limited to ever married women and last 12 months IPV and we cannot directly compare our results to them but the fact that the studies including one conducted in Zimbabwe found similar results add to the complexity of IPV and HIV relationship. Although it is difficult to draw conclusions on this finding, we assumed that the high prevalence of both phenomena in the population make the association difficult to find. It may also be explained by the fact that we do not know when the women were infected by HIV although we know the time of abuse was during pregnancy. In addition, it should be noted that the true association between HIV and IPV may only be measured in longitudinal studies in which cause and effect relationships are observed over time. However, sexual risk factors for HIV were found associated with IPV. This may suggest that the association between IPV and HIV is through risky sexual behaviours such as having multiple sexual partners and previous STI infections which we consistently reported (papers I-V). This is consistent with literature on previous studies conducted in South Africa (Dunkle, Jewkes et al. 2004, Jewkes, Dunkle et al. 2006).

Although HIV status and IPV were not found to be associated during pregnancy (Paper II), the two were linked after women disclosed their status to partners with more HIV positive women reporting physical, sexual and/or emotional abuse (40.5%) than HIV negative women (31.5%) (p=0.004) (Paper III) and that more HIV negative women disclosed than HIV positive women for fear of violence. As reported in previous studies (Nebié, Meda et al. 2001, Maman, Mbwanmo et al. 2003, Medley, Garcia-Moreno et al. 2004) and our qualitative research (Paper IV, Paper V) the fear of a partner limits disclosure and an HIV positive status brings conflict, quarrels and IPV disclosure of HIV status. This fear to be abused after disclosing an HIV positive status, leads women to withhold their results, because a positive status triggers discussions and accusations of past sexual history as HIV status is often linked to trust, faithfulness and loyalty to partner (Obermeyer, Baijal et al. 2011). We found that HIV prevention education at the antenatal care clinics were potential sources of conflicts in relationships when women insisted on safe sex which men often refused despite not being tested and when midwives emphasized HIV prevention ways that disregarded consensual sexual intercourse (Paper IV, Paper V).
While disclosure is recommended in health settings for prevention of HIV transmission in relationships, it brings with it violence against women. Women are vulnerable to IPV after disclosure because they are the ones who must disclose as men rarely test or do not want to test or if they tested would hide results of the test (Paper IV). The gendered nature of HIV testing and disclosure therefore need to be considered when encouraging women to disclose. The invisibility of IPV in the health system requires further discussion. While health workers emphasize HIV disclosure to a partner, there is insufficient assessment or consideration of the unintended consequences of the disclosure process. The link between disclosure of HIV status and IPV (Paper III) is supported by findings from our qualitative research (Paper IV, Paper V). Where women reported that they faced abuse when trying to negotiate condom use after testing positive, a midwife reported the following:

“They do not come in the open when it comes to the issue of sex after HIV tests. They take condoms in fear because they say, “I will be beaten up at home if he finds condoms in my bag”. They want to consult with partners first before taking condoms. Their partners accuse them of prostitution if they find them with condoms” (Midwife in Paper V).

The complexity of the relationship between HIV and IPV was demonstrated when midwives were preoccupied with prevention of HIV at the expense of IPV, rape specifically. Midwives advised women who complained of sexual abuse by partners at a time they felt they could not have sex that they should offer themselves for sex to their partners to stop their partners from seeking sexual intercourse from other women (Paper IV). This shows the health sector’s poor recognition of how their teaching to pregnant women increases abuse or contributes to IPV when addressing HIV prevention yet the two are linked in some way. There is therefore need to integrate IPV prevention in HIV prevention programmes during antenatal care, so that the two may be tackled simultaneously.

Another interesting finding in our study is that a large proportion of HIV negative women were abused (31.5%) after disclosing their HIV status, although they were fewer than HIV positive women (40.5%) (Paper II). Although this may have been due to the generally high prevalence of abuse in the population, our qualitative research (Paper IV) shows that despite testing HIV negative, women faced violence when they asked partners to test as well. Sexually risky men were often reportedly refusing to test and this fuelled conflicts and the abuse of women. We reported a case of a woman who struggled to convince her partner to test after she tested negative. She even stopped having sex with him but the partner forced her to have sex until she gave in. This shows that in cases where male partners’ statuses were not known or were suspected to be positive, a woman’s disclosure of her negative status was a source of conflict. Reports of men who tried to infect their partners by taking off condoms during sex after a woman tested negative cannot be ignored given the high prevalence of HIV negative women reporting abuse after disclosing HIV status. Men’s attempt to infect their partners could be a result of men’s fear of death while their partners live on. Further dedicated studies of IPV among discordant couples are needed to understand this further. In a broader sense, gender inequality explains why many HIV negative women were abused as men controlled most decision-making in relationships.
5.6 Intimate Partner Violence and the Health System

We aimed to study the dynamics of IPV and explore the perceptions and experiences of health workers regarding IPV against pregnant women. Our study demonstrated that the health sector (through midwives) largely perceives IPV as a domestic and non-medical or non-health problem that must be dealt with outside of the health system preferably at home using traditional structures including the aunts. The study shows that midwives were not trained to recognise and deal with abused women as it was not in their clinical training and service guidelines, despite some of them recognising and recommending integrating IPV in their health service (Paper V). This is in line with previous findings (Edin 2006). Midwives as such regarded IPV as a problem that does not fall under their medical jurisdiction. This is in a context where globally, gender-based-violence has been recognised as an important problem and research has consistently raised it high as a problem that could be addressed in health care situations as it significantly contributes towards mortality, injury and morbidity (Campbell 2002, Norman, Chopra et al. 2007, Seedat, Van Niekerk et al. 2009).

Given the high rate of ANC coverage (90%) in the country (ZIMSTAT and ICF 2012), it will be helpful to identify and assist women at high risk of IPV during antenatal care at least through referrals to specialized gender-based-violence organisations. This would require firstly, sensitizing the nurses about gender-based-violence so that they may recognise cues among women at high risk following the example in South Africa (Joyner and Mash 2011, Joyner and Mash 2012). This may be done at less cost in the resource limited contexts unlike the routine screening of all women which may not be feasible in developing settings (Laissé, Nyström et al. 2011, Scribano, Stevens et al. 2011) such as Zimbabwe as it requires reframing what is perceived as a complex, sensitive, and private matter as a health problem and equipping both staff and the health system to address it. Routine screening for partner violence is thus closer to the major challenges that HIV posted, than to routine screening for medical problems such as STIs. It is likely to be both complex and expensive as it may require more specialised services including counselling either in the health system or non-governmental organisations specialising in prevention of gender based violence.

The devastating effects of IPV during pregnancy on the health of the mother and the unborn child require concerted efforts to deal with the problem. We showed in Paper V how the work of non-governmental organisations is crucial in assisting the weak health sector in dealing with abuse. What is required is a sustained integrated programme that will seek to work with specialized non-governmental organisations as we noted in Paper V. This helps to reduce the effects of abuse on women and their unborn children.

The finding that a significant proportion of women reported being prevented from using contraception, visiting antenatal care and that decision-making to become pregnant attracts less violence when done by male partners only (Papers IV and V) requires that health workers pay greater attention to gender equity and gender-based-violence in reproductive health issues. A more meaningful way of integrating men in reproductive
health issues would also help to address this situation. This may be done by strengthening male participation in antenatal care interventions. In South Africa, the involvement of men in IPV prevention interventions has made dramatic inroads in IPV prevention (Peacock, Stemple et al. 2009).

5.7 Past Abuse and Abuse in Pregnancy

We measured the prevalence of women's past experiences of violence which include forced first sexual intercourse, child sexual abuse, child abuse (physical and/or sexual) and IPV in the last 12 months before pregnancy. We assessed their relationship of these past forms of violence with IPV (and severe IPV) during pregnancy, severe IPV and IPV after disclosing HIV status. We also measured men's previous use of violence with other men in the community since he partnered with our respondent. We found the prevalence of forced first sexual intercourse (15.5%) comparable to that found among pregnant South African women attending antenatal care in low income urban areas (12.4%) (Dunkle, Jewkes et al. 2004a) and among adolescents in Uganda (14%) (Koenig, Zablotska et al. 2004). It is difficult to make direct comparisons with DHS data in Zimbabwe which is the only available data in the country about forced first sexual intercourse. However, if being tricked into having sex was considered as forced first sexual intercourse in my study to be as inclusive as the DHS definition (21.6%) the estimate (18.9%) will be in the same range with that of the DHS (ZIMSTAT and ICF 2012). Since coerced first sex predicts violence in later adult life interventions should be implemented to prevent coercion in early life.

While previous studies reported an association between past forms of abuse and IPV in general without specifically focusing on violence during the time of pregnancy (Jewkes, Penn-Kekana et al. 2001, Maman, Mbwaumbo et al. 2001a) we examined whether prior exposure to violence both as a child and as an adult were associated with experiencing IPV during pregnancy. The study consistently found IPV, severe IPV during pregnancy and severe IPV after HIV disclosure strongly associated with all forms of past violence (forced first sexual intercourse, child sexual abuse and child physical and /or sexual abuse and IPV in the last 12 months before pregnancy) (Paper II and Paper III). The results suggest that abuse in pregnancy is not an isolated incident in a woman's life but appears to be part of a lifetime process as it is associated with abuse before age 15, forced first sexual intercourse which on average took place at 18 years and past year violence (the average age at previous year was 25 years). The concept of re-victimisation may be used to draw conclusions why previously abused women are more likely to report abuse again in their adulthood (Dunkle, Jewkes et al. 2004a). The social learning theory (Bandura, Ross et al. 1961) postulates that behaviour, whether positive or negative, is socially learned and therefore if children are exposed to violence, they will learn to use or accept it as a measure to discipline misbehaviour in later life. Although the thesis was not an interrogation of the social learning theory, the theory was a useful framework for understanding some of the linkages and continuities across generations. Social learning theory may therefore be used to model good behaviour, in this case, gender equitable behaviour among both boys and girls so that they grow up with decreased chances of being abused. It is sensible
therefore to target prevention of violence in childhood to reduce vulnerability in adult life. Previously abused women need to de-learn or to be re-socialised in the use of positive conflict management skills as has happened in the IMAGE study (Pronyk, Kim et al. 2008). The IMAGE study stands as a good example of how previously disadvantaged women can be economically empowered resulting in reducing gender inequalities and their vulnerability to violence. Secondary prevention interventions could therefore target women in antenatal care, for example through the use of health education talks by midwives to impart knowledge about gender equitable relationships.

5.8 Challenges of Researching Gender-Based-Violence during Pregnancy

Many researchers have written about challenges and ethics of researching violence against women (Jewkes, Watts et al. 2000, Campbell and Dienemann 2001, Ellsberg, Heise et al. 2001, WHO 2001, Ellsberg and Heise 2002, Fontes 2004, Jansen, Watts et al. 2004, Cramer, Hammond et al. 2011, Sikweyiya and Jewkes 2011, Jewkes, Sikweyiya et al. 2012, Rasmussen 2012, Sikweyiya and Jewkes 2012). None of them focused specifically on researching IPV during pregnancy. This section discusses some of the challenges that were specific to researching IPV during pregnancy in a postnatal setting although some of the challenges are similar to researching violence against women in general.

The safety and welfare of the respondent is of paramount importance in any study on violence against women and must come first (WHO 2001). As part of the study, the researcher organised with a leading organisation that works against gender-based-violence and manages shelters for violence survivors in Harare and two other organisations so that participants may be referred there for help. All women that were interviewed were given information about these organisations and were offered a pamphlet with contact details of these organisations. However, until the end of the study no increase in clients, due to our research referrals, at these organisations was observed. There is need for a follow-up study in Zimbabwe on this issue. In South Africa, it was found that participants rarely visited professional counselling organisations they were referred to, as they preferred to consult family members/relatives when need arose (Sikweyiya and Jewkes 2011). This may show women’s reluctance to report their abusers as confirmed in Paper V. However, the centrality of referring women to professional counselling organisations still need to be understood in greater detail in Southern African settings where the culture of visiting non-relatives for counselling is not as developed as it is in the Western countries which emphasize professional counsellors.

One of the often neglected ethical issues in researching violence against women is the safety and welfare of the researcher (Sikweyiya and Jewkes 2011). We anticipated challenges on researcher welfare due to traumatic stories of abuse narrated by women to research assistants. Our workshop to train research assistants upon recruitment was focused on and based on the WHO recommendations on researching violence against women and girls (WHO 2001) and included a researcher focused session on conducting research in gender
based research and another session on vicarious trauma led by a clinical psychologist. This enabled researchers to prepare themselves ahead of some of the traumatic situations faced in the field. Although the study employed qualified research assistants with some previous experience in social and gender related research whom we also trained, the sensitivity of researching abused pregnant women, a number of them HIV positive together with their babies, were sometimes overwhelming to the research assistants. Research assistants felt disturbed by the stories narrated by some respondents. We sometimes offered a day-off to assistants who needed to rest or to consult the psychologist. We conducted daily short debriefing sessions when research assistants submitted their daily outputs. In the middle of the study we organised a half day debriefing session with a clinical psychologist followed by an informal braai outing. The session focused on the challenges facing the fieldworkers fashioned like a group counselling session. The study availed the services of the psychologist throughout the research period so that if any researcher wanted to consult they could do so although no research assistant made any appointments with the psychologist.

Conducting the study in a health setting provides greater safety to respondents than when the study on violence is done at home. This is because when conducted at home the perpetrator is likely to know about the study and this will further put women at greater risk of IPV. However, the unexpected presence of the respondent’s partner at the clinic during the study (because men hardly accompanied their partners) is also a concern to the research and safety of women. Some of our respondents who accepted to participate in the study did not inform the researchers that they were accompanied by their partners who were around the clinic but not in the session. Sometimes research assistants would only recognise that the partner was available when he came to check if his partner was done with the consultation. In such cases our assistants would then begin using the dummy questions about general health issues and not about IPV. Applying the WHO regulations in this manner was helpful as we managed to hide the interviews from the partners.

Although, based on our ethics procedures, we informed our respondents not to disclose their HIV status during focus group discussions and reminded them of this ground rule, we had situations in which participants unconsciously disclosed their HIV test results. Of these disclosures, most were negative. Such disclosures were made when they narrated how their partners reacted to their disclosures or when they discussed whether men participated in testing for HIV during the women’s pregnancy. However, we did not see any woman who got disturbed by such disclosures.

The sensitive nature of the study led to many respondents shed tears during the study and each time this happened, the researcher would remind the respondents that if they wanted to leave the interview they could do so but we did not have any that terminated the interview prematurely because of that. A few incomplete interviews (n=28) were mainly due to other reasons such as the baby crying and needing attention or the women having to re-join the clinic queue. Our experience with respondents who shed tears was that they wanted to disclose the incidents as much as they could. A number of cases of those who
shed tears mentioned at the interview that they felt better after sharing their experiences with the researcher. This is in agreement with previous findings (Jewkes, Watts et al. 2000, WHO 2005). Our questionnaire evaluation questions show an overwhelming majority (66%) responding that they felt happy to have been interviewed, while nearly a third reporting no change and less than 1% felt that their situations were made worse by the interview. We offered a pamphlet with contact details of organisations that help women facing abuse.

Being a male researcher in a female environment also calls for discussion. I specifically led some sessions of focus group discussions with a research assistant, but did not generally feel that women shy away from discussing their situations. The plan for the fieldwork was that I would give the task to the female assistant to conduct the interviews if women refused to discuss GBV with me. One of the plans was, due to the sensitive nature of the study, to ask respondents to narrate their personal stories in third person language. However, it is interesting to note that women appeared to feel free to talk about violence and disclose their personal situations. It was in only one discussion when for a few minutes we (research assistant and I) switched roles with the research assistant. One of the lessons I learnt from conducting the study, is that abused women appear to feel very free to disclose their situations in a safe environment, as they feel relieved because many found it a good opportunity to tell someone about their personal violent experiences. We verified this when women agreed that during pregnancy it was difficult to report to a relative. They reported that if they told a relative they were likely to be told that it was part of womanhood, and that was how marriage unfolds and that they must endure such situations.
CHAPTER 6
CONCLUSIONS

6.1 Conclusion

This study provides a new finding of high prevalence of IPV during pregnancy. The prevalence figures were supported by respondents’ descriptions of how common violence was during FGDs. In addition, the study used severe violence measures which, to the best of our knowledge, have not been used before. Severe IPV in our study gives a clearer picture of the extent of violence women face during pregnancy. This is a step forward in understanding violence not as yes/no variable but in a continuum of severity- from no violence to multiple violence episodes- helps to determine more accurate conclusions on its associations with other variables than if it is taken as either present or absent. This is because a yes response to having ever been abused during pregnancy may not necessarily differ from no response to abuse in terms of their effects and it does not tell us much about the relationship. The study also found that a more comprehensive definition of violence which nevertheless distinguishes locally acceptable levels of conflict from violence and abuse elicits a very high level of violence, higher than in studies which used narrower definitions of violence.

Our study is the first to systematically measure IPV after HIV disclosure which was the highest ever reported in the world. Prior studies reported a number of negative effects of HIV disclosure including IPV, but with no clear definitions and measurements. Our study reports high rates of disclosure of HIV status contrary to previous review studies which concluded that developing countries report the lowest disclosure rates. Although we did not find an association between IPV and HIV status in multiple logistic regression analysis, most violence types were related to HIV status in Paper III, our study found many ways in which HIV may be linked to IPV and these include through disclosure of status - whether positive of negative, and linkages through sharing similar risk factors which include sexual risk factors (multiple sexual partners, history of STI infection).

Our study adds to existing literature, new knowledge about how gender inequities are associated with IPV during pregnancy. We also contributed to the debate about whether pregnancy is a time of vulnerability or relief among women. Our study found that pregnancy brings with it more vulnerable situations for abuse by male partners in an unequally gendered society. However, we also found that while pregnancy is a time of great vulnerability, physical violence decreases and that not all women are generally and similarly vulnerable to violence but that others ‘can stand their ground’ to resist violence in contexts with high levels of male dominance and perpetration of violence.

The high levels of IPV clearly lend support to the notion that IPV during pregnancy must be addressed in both primary and secondary prevention mechanisms. Midwives and public health practitioners cannot ignore violence during pregnancy. Provision of knowledge through campaigns for gender equity targeting women attending antenatal and postnatal care services could help educate and empower women against partner abuse. Community based interventions targeting men and the broader society aimed at changing inequitable gender norms may be used to target reducing intimate partner violence.
6.2 Strengths of the Study

The use of the mixed methods approach helped to better understand violence as a social, human rights and public health problem. The qualitative research which mainly used in-depth interviews and focus group discussions helped in the design of the questionnaire for the quantitative study as well as in understanding and explain quantitative data. For example, an understanding of why higher rates of abuse were reported by HIV negative women was only possible with information from the in-depth interviews and focus group discussions. Understanding violence from the perspective of women themselves and midwives who see pregnant women in antenatal care, helped to engage with views from people in the health sector. I was able to understand why women endure abuse during pregnancy without any help from the health sector. I conducted the quantitative study after fully engaging with data from the qualitative study, enabling me to carefully select and define variables of importance in understanding IPV during pregnancy. I also explained in the thesis the importance of interviewing postnatal women to understand their experiences during the whole nine months of pregnancy.

The study had a large sample size which enabled analysis of many variables and sub-analysis of different phenomena. This is the first study in Africa about IPV during pregnancy with a large sample size. The large sample size enabled us to analyse rare phenomena such as HIV positive women only in multivariate logistic regression model. This was not possible in many of the studies we reviewed (Paper I). Prior studies lacked the power to conduct adjusted multiple regression analysis without limitations.

As highlighted earlier, the strength of the study also was in the validity and reliability of the study process, including piloting the study tools and use of trained female fieldworkers. One of the notable strengths is the very high response rate (97%). The high response rate could have been a result of the study being introduced to women as a women’s health study (and not violence study) as per the WHO (2001) guidelines on researching violence against women. In addition, that health staff encouraged women to participate in the study may have motivated women to participate in the study. We recruited nearly all eligible women presenting at the clinic and our results may therefore be generalised to all postnatal women in public urban clinics among low income earners in Zimbabwe.

6.3 Study Limitations

The study has several limitations. The study was health facility-based focusing on postnatal women during pregnancy and findings may not be generalised to all pregnant women because pregnant women who seek postnatal services may differ in exposure to IPV from women who do not seek postnatal services. Although we interviewed women who attended the 10 days postpartum visit, as a near representative sample of recently pregnant women, we still missed women who aborted, miscarried or were in other circumstances that prevented them from attending a postnatal clinic. Pregnant women who experience violence may be underrepresented in this study because some may have been prevented from visiting health care facilities by their partners. However, contrasting
evidence suggests that abused women are more likely to seek health care than non-or-less abused women (Campbell 2002, Raj, Santana et al. 2006). This may therefore suggest that data from this study may be generalised to abused pregnant women. The study was cross-sectional and therefore limited in giving time variations. The study could only limitedly draw causal explanations for our major variables due to the cross sectional nature of the study. Nevertheless, the study was able to track the life course of IPV and other violence types in our sample of women by asking questions on lifetime experience of IPV, IPV during pregnancy and after testing for HIV in order to get some trends and dynamics of IPV during and across pregnancy. In addition, focus group discussions that were held with women and interviews held with health workers helped to complement data from the interviews and to offer some explanations on certain behaviours and exposures to violence.

The study did not include men’s explanations from focus group discussions. Men’s views could have assisted in understanding violence from their perspective and to better understand gender equity, violence and sexual risk factors. Although women are unlikely to overestimate their experiences of violence (Campbell 2004) and that the study also collected views of midwives, an understanding of men’s views could have been sought to triangulate data. The study interviewed women about their IPV after disclosure of their status but did not verify if the violence was because of HIV tests or other reasons. An assumption was therefore made that the violence was as a result of disclosure. In addition, there may have been some form of confounding in the measure of IPV after HIV disclosure. Firstly, violence after disclosure may be closely linked to the generally high levels of violence reported in the study area by respondents. The high levels of violence among HIV negative women are an example. Secondly, the factors that resulted in the woman acquiring HIV may have been responsible for those that led to the women being abused and similarly, the factors associated with the women’s protection from HIV may have been responsible for them not being abused. However, since we adjusted for past violence in the regression analysis, the effect of past violence in determining the relationship between IPV after disclosure might have been considerably reduced in the models.

The meta-analysis in Paper I yielded high heterogeneity (99%) in the meta-analysis and this calls for readers to interpret the overall prevalence with caution. However, the range of prevalence across the studies helps us to understand better the picture of prevalence during pregnancy across Africa. The multi-ethnic regions in which the studies were conducted in Africa may also help to explain the differences leading to the wide ranges in addition to the methodological variations explained earlier. The study collected qualitative data first and later on quantitative data. It would have further improved our understanding of IPV issues if some in-depth interviews with women at the end of the quantitative data analysis were done with the specific aim to follow up on some difficult issues arising from the quantitative data.
6.4 Recommendations and Policy Implications of the Study

6.4.1 Primary prevention of violence in the family and at school

The family and school institutions where children are mainly abused could instead be used to socialise children with gender equity and non-violent conflict management skills. This merits careful consideration because the reported high levels of IPV during pregnancy and after HIV disclosure were strongly related to past forms of violence including child abuse, forced first sexual intercourse and past adult abuse. Positive methods of discipline could be taught in schools to create a culture of non-violence. This helps to ensure boys and girls grow up with strong gender equitable attitudes, beliefs and practices and the use of non-violent conflict management skills. The school is potentially a platform to teach learners about the economic, physical, sexual and emotional changes associated with women during pregnancy. This also includes shared decision making to become pregnant. The school system has an advantage of reaching out to almost all children given the high literacy and enrolment levels reported in the study.

Children may also be vulnerable and abused due to their poor socio-economic situations. Improving their conditions of living through introducing and strengthening the implementation of child support grants to vulnerable urban children beyond educational support can be instrumental in empowering them. This in turn may change their situations and help prevent violence as reported in Peru (Jones, Vargas et al 2008).

Primary prevention of violence may also target the social institutions and cultural phenomena that seem to increase the risk of experiencing violence. Paper III showed that the culture of paying bride price made women vulnerable to their partners as women felt obliged to give in to risky and painful sexual demands from their partners due to the transactional nature of bride price. However, not paying at all was a risk factor for violence although the relationship did not persist when co-variates were added in the model in paper II. Not having paid bride price may be a result of poverty which was widespread among the population over the past decade in the country although not loving the woman may also explain non-payment of bride price. Raising awareness on the adverse effects of bride price is a potential area for intervention for IPV and HIV prevention in Zimbabwe and possibly many African countries.

6.4.2 Secondary prevention of violence through the Health System

I recommend that the health system recognizes IPV during pregnancy as a public health problem and institute low cost and less time consuming interventions in antenatal care. Health workers could be sensitized through short (eg one day) training in gender based violence to be able to recognize and respond to high IPV risk cases through referral to relevant organizations. The health system could work with non-governmental organisations specialising in gender based violence prevention. Such organisations could be invited to give routine short health talks at the clinics to help empower women with education about preventing gender based violence. HIV counselling should incorporate basic IPV counselling in their sessions. In addition sensitized midwives can utilize group health education talks in antenatal care to cover IPV prevention and support services for
abused women such as counselling. I also recommend that the health system works with relevant anti-gender based violence nongovernmental organisations to capacitate the health system and giving IPV prevention talks during antenatal care sessions whilst women wait to be seen. Scrapping of antenatal and labour user fees may help to reduce women's vulnerability towards IPV as this contributes towards alleviating women's dependency on and abuse by their partners. The Ministry of Health and the City Health Department must find other ways of funding maternal health system that does not make women pay in these clinics. This is because it makes the poor and usually unemployed women more vulnerable to abuse by their partners whom they depend on for their daily economic livelihoods as well as for care in regard to their pregnancy. Strengthening ways in which men can participate in HIV testing is also required in the provider initiated counselling and testing so that IPV issues could be explored in the sessions which is attended by both partners. Disclosure of HIV to partners must continue as a way of preventing HIV. However, health workers must provide IPV counselling so that women are not abused after they disclose. The National Family Planning Council could also respond to IPV by introducing issues of IPV in their counselling and emphasizing on shared decision making in pregnancy planning.

Integrating and strengthening IPV prevention in the public-private HIV partnerships in the rights and HIV related organizations can be useful. The structures and relationship between government and the civil society which successfully contributed to reducing HIV prevalence in Zimbabwe could be used to influence IPV behaviour change as well. The momentum, skills and structures for HIV prevention could be used to challenge gender inequality with respect to IPV. Men's organizations and programmes could be used to challenge unfair patriarchal domination of women by men and IPV. Community campaigns at drinking places could be used to target IPV so that men are socialized with non-violence. Televisions and pamphlets could be used to disseminate messages of gender equality and non-violent conflict management skills at drinking places. These could sensitize men to sexual and reproductive health including the physical, sexual, emotional and economic changes that are associated with pregnancy.

Although the relationship between HIV and IPV was not evident in the study even with severe violence, we found that HIV positive women reported more abuse than was reported by HIV-negative women and this was supported by information from the qualitative study. Since most women who test positive are referred to support groups for more knowledge, information and support on positive living, I recommend that gender equity and gender based violence be considered a central topic in the HIV and AIDS support groups. This could go a long way empowering women to prevent further violence. Since most women test for HIV at their first antenatal care visit, women could be quickly referred to and enrolled in support groups to help with disclosing their HIV status and living healthy and non-violent lives with their partners.
6.5 Further Research

Longitudinal studies are needed to measure IPV throughout the pregnancy and soon after pregnancy, while also considering disclosure and violence resulting from disclosure. This will allow measuring specific acts of violence resulting from HIV disclosure to be measured. It is through longitudinal studies that we may determine cause and effect relationship. Including men's views in studies of violence against women would contribute to understanding the dynamics of IPV much better. The study found that women do not report IPV to the police or the courts and that prosecutions are not likely despite high levels of violence. Further studies must research on tracking the justice cascade from abuse in the partnership, police reports, and courts through the finalisation of cases. This could help to understand in detail why women do not report violence and what happens if they report violence. If perpetrators are brought to book, this could send a signal to the community and possibly help to reduce violence perpetration.

6.6 Next Step: Dissemination and Advocacy Work

It is critical that research findings are disseminated to relevant stakeholders to increase awareness among the general public and help influence policy and interventions. To this end, the researcher developed a plan for dissemination whose implementation is underway. Some of the findings of the study have been disseminated at both international and local conferences. A list of conference presentations is included in Appendix L. A dissemination workshop will be organised in Harare, Zimbabwe and this will bring together relevant stakeholders (Ministries of Health, Women's Affairs and Social Development, HIV and women's organisations, Harare City Health department and activists, and academics, practitioners, women and men). Results will also be presented at the forthcoming National HIV/AIDS conference in Zimbabwe. A press conference will be organised and broadcast on national television, radio and news agencies as part of the dissemination plan. Key results will be translated into a brief pamphlet together with relevant NGOs and will be distributed to the public through non-governmental organisations and antenatal care settings in the clinics.
APPENDICES
Appendix A: Ethical Considerations

Introduction
The study procedures followed the WHO (2001) Ethical and Safety Recommendations for research on domestic violence against women. The guidelines help researchers in collecting and managing sensitive information which include intimate partner violence. Since many women prefer to share such information with women, the researcher recruited female interviewers based on their attitudes towards gender based violence, sexuality and HIV (Dunkle et al 2003). Interviewers were trained for 7 days on researching violence against women and research skills paying emphasis on ensuring safety of the participants and interviewers, minimising underreporting of violence, avoiding reproducing women’s inferior status and handling confidential information.

Risks
There might have been some minimal psychological risks in participating in the study. By asking women to recall and recite acts of violence perpetrated on them, some of them still traumatic, some women might have become stressed and/or burdened. Interviewers were vigilant to avoid burdening participants through the recruitment and interviewing processes. They also made sure they avoided reproducing women’s inferior status during the interview process. The study aim did not override the rights and welfare of the women and women therefore were informed that they could discontinue the interview should they feel uncomfortable. The researcher worked closely with Musasa, a non-governmental organisation specialising in prevention of gender based violence and rehabilitating victims of gender based violence. Musasa had qualified and experienced staff who counselled and supported victims of gender based violence. The organisation also ran shelters for survivors of gender based violence. Participants were referred to the Musasa Project and two other similar organisations for assistance.

Benefits and Compensation
All women who participated in the interviews received a leaflet with information and contact details of organisations they could contact should they require assistance and counselling on gender based violence and HIV. They also benefit by getting an opportunity to tell someone about abuse in their lives, an opportunity some only got in the study. They received some refreshments during the discussion. Other participants who reported economic abuse were referred to the clinic staff who registered them to receive food hampers and other assistance required by new mothers which were provided by a nongovernmental organization at the clinics.

Confidentiality
This was assured during recruitment and interviews. Interviews were conducted in a private space at the clinics. Privacy was maintained in the conduct of the interviews, management and use of data and participant identity was kept confidential. In focus group discussions participants were instructed not to disclose their HIV status. All data were kept under lock and key where they were only accessed by the research team under the supervision of the principal investigator. Information on HIV status from the records was number coded to protect participants’ names outside the facility. Participants and clinics were therefore represented by numbers and pseudonyms in the study.

Informed Consent
During the recruitment process women were informed about the study aim, their right not to participate and that participation or non-participation in the study would not adversely affect their access to health services in the facilities. This was maintained throughout the
study. Written informed consent (and assent for the women below 18 years old) was sought for participation in the study. Participant written consent was requested and provided for the researcher to access the participants' clinical records that include HIV test results.

**Voluntary Participation**
All potential participants were informed that their participation in the study was voluntary and that they were free to withdraw at any time if they felt uncomfortable to continue with the interview.

**Ethical Clearance and Permission to Conduct the Study**
Ethical approval was sought from the University of the Western Cape Senate Research Committee, the University of Zimbabwe's Joint Parirenyatwa Hospital and College of Health Sciences research ethics committee and the Medical Research Council Research Ethics Committee. Permission to conduct the study at the facilities was sought from the Harare City Council Health Directorate and each facility superintendent.
UNIVERSITY OF ZIMBABWE

COLLEGE OF HEALTH SCIENCES

MEMORANDUM

FROM: Chairman, Joint Research Ethics Committee                     DATE: 9 Feb 2010

TO: Mr S Shamu, Department of Community Medicine                     EXT: 2239/2242
c.c: Chairperson, Department of Community Medicine

RE: THE DYNAMICS OF INTIMATE PARTNER VIOLENCE (IPV) AND THE RISK
    OF HIV AMONG PREGNANT WOMEN IN ZIMBABWE – JREC/48/09.

Thank you for your application with the above mentioned title seeking approval from the Joint
Parirenyatwa Hospital and College of Health Sciences Research Ethics Committee (JREC). The
Committee has successfully evaluated and discussed the corrections you supplied.

It was agreed that your application be approved as a research project which is ethically sound.

Wishing you an enjoyable and fruitful research.

Prof M.M. Chidzonga
Appendix C: Ethics Approval from the Medical Research Council of Zimbabwe

MRCZ APPROVAL LETTER

Ref: MRCZ/B/114

Simukai Shamu
UZ-CHS
Deps. Of Community Medicine
Box A78 Avondale
Harare

RE: The Dynamics Of Intimate Partner Violence (IPV) and the risk of HT among pregnant women in Zimbabwe

Thank you for the above titled proposal that you submitted to the Medical Research Council of Zimbabwe (MRCZ) for review. Please be advised that the Medical Research Council of Zimbabwe has reviewed and approved your application to conduct the above titled study. This is based on the following:

(a) Study Protocol
(b) Consent Forms (English And Shona)
(c) Survey Questionnaire (English And Shona)

- APPROVAL NUMBER: MRCZ/B/114
- MRCZ MEETING DATE: N/A
- APPROVAL DATE: 27 October, 2010
- EXPIRATION DATE: 26 October, 2011
- TYPE OF MEETING: Expedited review

After this date, this project may only continue upon renewal. For purposes of renewal, a progress report on a standard form obtained from the MRCZ Office should be submitted one month before the expiration date for continuing review.

SERIOUS ADVERSE EVENT REPORTING: All serious problems having to do with subject safety must be reported to the institutional ethical review committee (IERC) as well as the MRCZ within 3 working days using standard forms obtainable from the IERC Office.

MODIFICATIONS: Prior MRCZ and IERC approval using standard forms obtainable from the MRCZ Office is required before modifying any changes in the Protocol (including changes in the consent-documents).

TERMINATION OF STUDY: On termination of a study, a report has to be submitted to the MRCZ using standard forms obtainable from the MRCZ Office.

QUESTIONS: Please contact the MRCZ on Telephone No. (04) 791791, 791155 or by e-mail on mrcz@mrcz.mh@wz.zv.

Yours Faithfully,

MRCZ SECRETARIAT
FOR CHAIRPERSON
MEDICAL RESEARCH COUNCIL OF ZIMBABWE

F. M. SHARMA
CHAIRPERSON
MEDICAL RESEARCH COUNCIL OF ZIMBABWE

27 OCT 2010
APPROVED
CALSEWY, HARB

Registered with the USA Office for Human Research Protections (OHRP) as an International IRB (TRB Number 10.000002403- for MRCZ #100013)
Appendix D: Ethics Approval from the University of the Western Cape Senate Research Committee

HIGHERS DEGREES COMMITTEE

7 December 2009

TO WHOM IT MAY CONCERN

Dear Sir/Madam

Research Project of Mr Simukai Shamu (Student Number: 2931022)

This letter confirms that Mr Shamu is a registered student in the Faculty of Community and Health Sciences at the University of the Western Cape.

His research proposal entitled “The dynamics of intimate partner violence and the risk of HIV among pregnant women in Zimbabwe” submitted in fulfilment of the requirements for PhD in Public Health has been examined by the Higher Degrees Committee and found to be of high scientific value, methodologically sound and ethical.

Senate Higher Degrees and Senate Ethics Committees have approved the proposal.

We fully support the research.

Sincerely

[Signature]

DR GAVIN REAGON
Chairperson: Higher Degrees Committee
Appendix E: Permission to Conduct the study at Harare City Health Clinics

CITY OF HARARE

Director of Health Services
DR STANLEY MUNOSOFA
MO (Cuba) MPH (Zim)

22 March 2010

Mr S Shamu
University of Zimbabwe
Department of Community Medicine
HARARE

Dear Sir/Madam

RE: DATA COLLECTION – DYNAMICS OF INTIMATE PARTNER VIOLENCE (IPV)

I refer to your letter concerning the above.

Permission has been granted for you to carry out the Dynamics of Intimate Partner Violence (IPV) and the risk of HIV among pregnant women in City Health Clinics.

For further assistance liaise with the Sisters In Charge of the clinics.

Yours faithfully

DIRECTOR OF HEALTH SERVICES
PC/rm

ADHS(N)
c.c. Sisters In Charge - Clinics
PARTICIPANT INFORMATION SHEET

Introducing the interviewer and the study

Hi, My name is ................................................................. I am a researcher working for the University of Zimbabwe’s Department of Community Medicine and University of the Western Cape’s School of Public Health in South Africa. We are doing research about women’s health and life experiences. The study aims to find out the relationship between intimate partner violence and HIV risk among pregnant women attending antenatal and postnatal clinics in Harare in Warren Park, Mbare, Kambuzuma, Glen Norah, Glen View and Mufakose. The research is being conducted by Mr Simukai Shamu for his PhD studies in the School of Public Health at the University of the Western Cape. The information obtained in the study is hoped to assist pregnant women in Zimbabwe. At the end of the study the results will also be published in academic books/papers but this will not identify participants by their real names as the information will be grouped together and pseudonyms will be used.

Method

The study involves interviewing you for about 45 minutes. I will be asking you questions and recording your responses on the questionnaire. We also request you to allow our supervisor to access your medical card that contains your information on HIV testing and pregnancy outcome in the clinic. We assure you that this card will not be taken outside the clinic and your name and identity will be kept confidential. I will not know your HIV test results and will not ask you to tell me your HIV status.
How the study can affect you

The study contains some questions that you may find difficult to answer or remind you of some incidents of violence that you felt uncomfortable with in your relationship with your current or past partner. Some may have been done before you turned 15 years of age by any other person, known or unknown to you. You are free not to answer such questions. Your participation in this study is voluntary and you are free to exit the interview at any time. If you refuse to participate in the study it will not in any way negatively affect your access to health care in this or other clinics. However, many women have found such an opportunity to talk about these things helpful. We have arranged with some trained counsellors outside this clinic that you can approach should you need assistance during the duration of this study. They can listen to you, support you and help you to cope with the problem. We encourage you to contact them using the contact details below.

Keeping the information Confidential

If you agree to participate in the study, we will hold the interview in private and the information collected, including the medical information will be kept confidential. Your name will not be recorded on the questionnaire and your identity will be kept confidential. When we report on all information we will refer to all women in the study and not you as an individual.

Informed Consent/Assent

It is OK if you do not want to participate and you can remove your name from the study anytime and the researchers will respect your decision. If you agree to participate I will read out a formal consent form to you and ask you to sign it to say you agree to participate.

Compensation

I will give you some refreshments (e.g. a cool drink) during the interview.

Contact details

If you have any questions, you can contact Mr Simukai Shamu. His telephone number is 795835. If you have any questions concerning this study or consent form beyond those answered by the investigator, including questions about the research, your rights as a research subject or research-related injuries; or if you feel that you have been treated unfairly and would like to talk to someone other than a member of the research team, please feel free to contact the Medical Research Council of Zimbabwe on telephone 791792 or 791193.
CONTACT INFORMATION OF TRAINED COUNSELLORS IN HARARE:

1. **Musasa:**
   Toll free: 0800 3268 727 Office telephone number: 04 706284  Telefax: 04 794 983
   Physical Address: 64 Selous Ave, Cnr 7th Street, Harare, **Zimbabwe.** Postal address, P.O. Box A712, Avondale

2. **Women and AIDS Support Network (WASN)**
   Tel: 04-791401/4, Physical Address: 13 Walterhill Avenue, Eastlea, Harare

3. **Women in Law and Development in Africa (WILDAF)**
   Tel: 04-751189/752105/771958-9, Physical Address: 2nd Floor Zambia House Kwame Nkrumah Road, Harare;

   Postal Address: Box 4622  Harare
Appendix G: Consent Form

CONSENT FORM

Title of Research Project: Women’s health study in Zimbabwe.

Principal Investigator: Mr Simukai Shamu

The information sheet has been read and explained to me in a language that I understand and I freely and voluntarily agree to participate. I have been given an opportunity to ask questions about the study and my questions have been answered. I understand that my identity will not be disclosed and that I may withdraw from the study at any time and this will not negatively affect me in any way.

Participant’s Name:..................................................... No............................

Signature of participant....................................................Date................................................

Signature of Witness........................................................Date................................................

Signature of Interviewer.....................................................Date.............................................

If you have any questions concerning this study or consent form beyond those answered by the investigator, including questions about the research, your rights as a research subject or research-related injuries; or if you feel that you have been treated unfairly and would like to talk to someone other than a member of the research team, please feel free to contact the Medical Research Council of Zimbabwe on telephone 791792 or 791193.
Appendix H: Assent Form (15-17 years)

Title of Research Project: Women's health study in Zimbabwe.

Principal Investigator: Mr Simukai Shamu

The information sheet has been read and explained to me in a language that I understand and I freely and voluntarily agree that you can interview................................................. (Name of minor). I have been given an opportunity to ask questions about the study and my questions have been answered. I understand that her identity will not be disclosed and that she may withdraw from the study at any time and this will not negatively affect her in any way.

Name of Guardian.................................Signature of Guardian...................... Date.........

Signature of Witness........................................................Date............................................

Signature of Interviewer.....................................................Date.............................................

For children 15 years old to 17 years old

My participation in this research study is voluntary. I have read and understood the above information, asked any questions which I may have and have agreed to participate. I will be given a copy of this form to keep.
If you have any questions concerning this study or consent form beyond those answered by the investigator, including questions about the research, your rights as a research subject or research-related injuries; or if you feel that you have been treated unfairly and would like to talk to someone other than a member of the research team, please feel free to contact the Medical Research Council of Zimbabwe on telephone 791792 or 791193.
Appendix I: Focus Group Guide

INTIMATE PARTNER VIOLENCE AND HIV STUDY

FOCUS GROUP DISCUSSION GUIDE

Questions for pregnant mothers

1. What type of decisions should a wife/partner/girlfriend make in a relationship?
   a. Do unmarried pregnant women consult with their fathers about decisions?

2. How do decisions about being pregnant happen?
   a. What happens once a woman finds out she is pregnant?
   b. Who does she inform?
   c. What decisions are made? By who? Keep the decision question later when they are more relaxed!!

3. How are women treated by their partners during pregnancy?
   a. How are they treated voluntarily? Mistreatments...
   b. What type of unwanted actions or behaviour do men do to their partners during pregnancy? Probe financially, emotionally, physically, sexually? Probe.

4. How does abuse happen? Why does this happen?
   a. Should a wife be punished or disciplined by her husband? Why? How? In what circumstances?
   b. What sorts of ‘discipline’ do you think are acceptable?
   c. What circumstances facilitate women’s mistreatment (abuse) by their partners?

5. If you were to describe a man who abuses his partner, how will you describe this man?
   a. Context of abuse

6. Are women forced to have sex with their partner/husband? Under what circumstances?

7. Who usually decides how, when and how often to have sex between partners?

8. Why do you think pregnant women are abused? Under what circumstances?

9. Do men force their partners to have sex even if they do not want? What about when a woman is pregnant?

10. Are women abused for testing for HIV? (I am not asking you to report on what happened to you personally but pregnant women in general.)
    a. What do you think it was like?
    b. What made them decide to accept the test and to get the test result?

11. Where do women get help (report) if they are abused by their partners?
Questions for women attending post natal care

12. Do you think it is good for a woman to inform her partner about her HIV test results? Why do you say so? Probe.

13. Why do some women fail to collect their HIV test results?
   a. Fail to join PMTCT program?
   b. What makes some women decide to accept the test?

14. What is the best time/opportunity to inform the male partner?

15. How would you inform him if you wanted to?

16. How do you think a husband/partner might react after you tell him your status (that you are HIV positive)

17. Who else do you think women inform about their HIV status?

18. What do you think happens to a woman who makes her status known to her partner?

   Probe several actions and behaviours! What do you think happens when women tell other people about their status?

19. What could possibly happen to a woman after she disclosed her HIV test results to a husband/partner?

20. How involved are men in PMTCT programme? Are men supportive of women to test during pregnancy?
Appendix J: Interview Guide for Health Workers

Intimate partner violence and HIV study

Semi structured interviews with health workers

Health Facility

1. Can you describe how ANC is organised at this health facility?
   a. Booking process, booking per day? Per week? Per month?
   b. Attendance - numbers? Socio-demographic characteristics, coverage
   c. Opening hours-weekly, daily. When do you receive more clients?

2. Can you describe the process of VCT at this health facility?
   a. Provider initiated or client initiated?
   b. Counselling process, coverage and organisation
   c. Testing, coverage? Type of test: ELISA, ABBOTT, DETERMINE, rapid testing? Who performs the test?
   d. Opening hours-week, day...when do you receive more clients?
   e. How many mothers deliver at this facility? Per day? Per week? Per month? Per year?

3. What proportion of women who attend ANC at this clinic deliver elsewhere (home or other facilities/hospitals)?

4. Can you please describe how postnatal care is organised?
   a. Coverage
   b. Peak days/times
   c. Opening hours-weekly, daily,

5. What proportion of women who attend ANC at this facility attend postnatal care clinics at this facility? elsewhere?

6. How often are women accompanied by their husbands for ANC? VCT? PNC?

7. Are women readily available for testing HIV? Any influence/support from partners?

8. What proportions fail/refuse to test for HIV? What do you do if they refuse?

9. What proportions collect their results? After how long do they collect results? What make them fail to collect results?

10. Do you encourage women to disclose their HIV test results to their partners? Do they disclose? After how long? With what results? Do you think their partners know their results (do you think they know their partner’s results?)

158
Violence

   a. How often?

12. Do you think it is good to screen for violence?

13. What are the challenges for screening for abuse?

14. Were you trained to screen for abuse?

15. How often do you identify patients who are abused by their partners?

16. How do you recognise that they are abused?

17. What types of abuse do you detect?

18. What are the most common types of abuse that you identify? Do you record this information on their medical records?

19. Do women disclose, without being asked, the abuse they experienced?

20. What form of education would you need regarding violence against women?

21. How often do pregnant mothers present with signs of abuse?

22. What signs of abuse do they present? Do you refer cases of abuse elsewhere? Where? How often do you hear or handle cases of violence after a pregnant woman tested for HIV?

23. What types of abuse do you hear? How do you handle them? Do you detect them on your own or women report them to you?
Appendix K: Women’s Health Study Questionnaire

WOMEN’S HEALTH STUDY
(ZIMBABWE)

QUESTIONNAIRE

Department of Community Medicine, College of Health Sciences, University of Zimbabwe, Box A178, Avondale, Harare Zimbabwe, Email: shamuts@yahoo.com, Tel/Fax: +263-4 795 835

and

School of Public Health, University of the Western Cape, Bag X17, Bellville, 7535, Cape Town, South Africa. Email: sshamu@uwc.ac.za Tel: +27 21 959 2809 Fax: +27 21 959 2872
**ADMINISTRATION FORM**

### IDENTIFICATION

Health Facility Name: 

Facility code: Glen View......1  Kambuzuma......2  Mbare......3  Mufakose......4  Rutsanana......5  Warren Park......6

Respondent No.: Ten Days......1  Six Weeks......2

Interviewers codes: 1=Ashley;  2=Noma;  3=Linda;  4=Nobuhle;  5= Precious;  6 = Rumbidzai

Date of Interview: / / (ddmmyyyy)  Time: ...........h...............

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### FIELD SUPERVISOR

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<tr>
<td>ENTRY 2: __________</td>
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RESULT CODES:

1. Completed
2. Refused
3. Partly completed
4. Postponed
5. Incapacitated
6. Specify.............

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### SECTION 1: RESPONDENT CHARACTERISTICS

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<td>What is your birth day?</td>
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<td>What is the highest level of education that you achieved? MARK HIGHEST LEVEL.</td>
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<td>105 Are you currently married or do you have a male partner?</td>
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<td>IF RESPONDENT HAS A MALE PARTNER ASK</td>
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<td>Do you and your partner live together?</td>
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<td>106 Have you ever been married or lived with a male partner?</td>
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<td>107 Did the last partnership with a man end in divorce or separation, or did your husband/partner die?</td>
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<td>108 Was the divorce/separation initiated by you, by your husband/partner, or did you both decide that you should separate?</td>
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<td>109 How many times in your life have you been married and/or lived together with a man? (INCLUDE CURRENT PARTNER IF LIVING TOGETHER)</td>
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<td>110 Do/did you live with your husband/partner’s parents or any of his relatives?</td>
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<td>113 Does/did your husband/partner have any other wives while being married (having a relationship) with you?</td>
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<td>114 Are/were you the first, second…. wife/partner? ADAPT WORDING LOCALLY, CHECK THAT THIS REFERS TO THE OTHER WIVES HE/HAD AT SAME TIME WHILE BEING WITH RESPONDENT</td>
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<td>115 Did you have any kind of marriage ceremony to formalize the union? What type of ceremony did you have? MARK ALL THAT APPLY</td>
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The next few questions are about your current or most recent partnership.
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<thead>
<tr>
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<th>Response Options</th>
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</thead>
</table>
| Did you yourself choose your current/most recent husband, did someone else choose him for you, or did he choose you? | BOTH CHOSE ..................................................1  
RESPONDENT CHOSE ........................................2  
RESPONDENT’S FAMILY CHOSE ................................3  
PARTNER CHOSE ...........................................4  
PARTNER’S FAMILY CHOSE ................................5  
CHURCH.........................................................6  
OTHER.........................................................7  
DON’T KNOW/DON’T REMEMBER ................................8  
REFUSED/NO ANSWER .........................................9  |
| Before the marriage with your current/most recent husband, were you asked whether you wanted to marry him or not? | YES ..............................................................1  
NO ...............................................................2  
DON’T KNOW/DON’T REMEMBER ................................8  
REFUSED/NO ANSWER .........................................9  |
| Did your marriage involve bride price payment?                         | YES/DOWRY.....................................................1  
YES/BRIDE PRICE ............................................2  
NO ...............................................................3  
DON’T KNOW/DON’T REMEMBER ................................8  
REFUSED/NO ANSWER .........................................9  |
| Has all of the bride price been paid for, or does some part still remain to be paid? | ALL PAID ......................................................1  
PARTIALLY PAID .............................................2  
NONE PAID ......................................................3  
DON’T KNOW/DON’T REMEMBER ................................8  
REFUSED/NO ANSWER .........................................9  |
| Overall, do you think that the amount of dowry/bride price payment has had a positive impact on how you are treated by your husband and his family, a negative impact, or no particular impact? | POSITIVE IMPACT .............................................1  
NEGATIVE IMPACT .............................................2  
NO IMPACT .....................................................3  
DON’T KNOW/DON’T REMEMBER ................................8  
REFUSED/NO ANSWER .........................................9  |
| How often did you drink alcohol in the 12 months before your most recent pregnancy? Would you say: | EVERY DAY OR NEARLY EVERY DAY ..........1  
ONCE OR TWICE A WEEK ..................................2  
1 – 3 TIMES IN A MONTH..................................3  
RARELY .........................................................4  
NEVER ............................................................5  
DON’T KNOW/DON’T REMEMBER ................................8  
REFUSED/NO ANSWER .........................................9  |
| How many times did you drink alcohol during your most recent pregnancy? Would you say: | EVERY DAY OR NEARLY EVERY DAY ..........1  
ONCE OR TWICE A WEEK ..................................2  
1 – 3 TIMES IN A MONTH..................................3  
RARELY .........................................................4  
NEVER ............................................................5  
DON’T KNOW/DON’T REMEMBER ................................8  
REFUSED/NO ANSWER .........................................9  |
<p>| In the past 12 months, have you ever experienced any of the following problems, related to your drinking? | YES | NO |
| a) money problems                                                     | 1   | 2   |
| b) health problems                                                    | 1   | 2   |
| c) conflict with family or friends                                    | 1   | 2   |
| d) problems with authorities (bar owner/police, etc)                  | 1   | 2   |
| x) other, specify.                                                   | 1   | 2   |</p>
<table>
<thead>
<tr>
<th>125</th>
<th>CESD-Depression scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>The next questions are related to other common problems that may have bothered you in the past 4 weeks. If you had the problem in the past 4 weeks, answer yes. If you have not had the problem in the past 4 weeks, answer no.</td>
<td></td>
</tr>
</tbody>
</table>

| a) Do you often have headaches? | YES | NO |
| b) Is your appetite poor? | HEADACHES | 1 | 2 |
| c) Do you sleep badly? | APPETITE | 1 | 2 |
| d) Are you easily frightened? | SLEEP BADLY | 1 | 2 |
| e) Do your hands shake? | FRIGHTENED | 1 | 2 |
| f) Do you feel nervous, tense or worried? | HANDS SHAKES | 1 | 2 |
| g) Is your digestion poor? | NERVOUS | 1 | 2 |
| h) Do you have trouble thinking clearly? | DIGESTION | 1 | 2 |
| i) Do you feel unhappy? | THINKING | 1 | 2 |
| j) Do you cry more than usual? | UNHAPPY | 1 | 2 |
| k) Do you find it difficult to enjoy your daily activities? | CRY MORE | 1 | 2 |
| l) Do you find it difficult to make decisions? | NOT ENJOY | 1 | 2 |
| m) Is your daily work suffering? | DECISIONS | 1 | 2 |
| n) Are you unable to play a useful part in life? | WORK SUFFER | 1 | 2 |
| o) Have you lost interest in things that you used to enjoy? | USEFUL PART | 1 | 2 |
| p) Do you feel that you are a worthless person? | LOST INTEREST | 1 | 2 |
| q) Has the thought of ending your life been on your mind? | WORTHLESS | 1 | 2 |
| r) Do you feel tired all the time? | ENDING LIFE | 1 | 2 |
| s) Do you have uncomfortable feelings in your stomach? | FEEL TIRED | 1 | 2 |
| t) Are you easily tired? | STOMACH | 1 | 2 |

126 Just now we talked about problems that may have bothered you in the past 4 weeks. I would like to ask you now: In your life, have you ever thought about ending your life?

- Yes ................................................................. 
- Don’t know/don’t remember ................................
- Refused/no answer ........................................

127 Have you ever tried to take your life?

- YES ......................1
- NO .........................2
- DON’T KNOW/DON’T REMEMBER .........8
- REFUSED/NO ANSWER .........9

SECTION 2  REPRODUCTIVE HEALTH

Now I would like to ask about your past and current pregnancies

201 How many times have you been pregnant? Include pregnancies that did not end up in a live birth, and current pregnancy?

| TOTAL NO. OF PREGNANCIES | [ ] [ ] |

202 Have you ever given birth to a live baby, but later died? This could be at any age.

IF NO, PROBE: Any baby who cried or showed signs of life but survived for only a few hours or days?

- YES .................................................................
- NO .................................................................
- DON’T KNOW/DON’T REMEMBER .........8
- REFUSED/NO ANSWER .........9
<table>
<thead>
<tr>
<th>Question</th>
<th>Options</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have you ever had a pregnancy that miscarried, or ended in a stillbirth?</td>
<td>a) MISCARRIAGES [ ] [ ] [ ] b) STILLBIRTHS [ ] [ ] [ ] c) PREMATURE [ ] [ ] [ ]</td>
<td>⇒20</td>
</tr>
<tr>
<td>PROBE: How many times did you miscarry, how many times did you have a stillbirth, and how many times did you give birth to a premature?</td>
<td>IF NONE ENTER '00'</td>
<td>6</td>
</tr>
<tr>
<td>Has your current/most recent husband/partner ever refused to use a method to avoid getting pregnant?</td>
<td>YES .................................................1 NO .............................................2 REFUSED .........................................9</td>
<td>⇒21</td>
</tr>
<tr>
<td>In what ways did he let you know that he disapproved of using methods to avoid getting pregnant?</td>
<td>TOLD ME HE DID NOT APPROVE ...........A SHOUTED/GOT ANGRY .................B THREATENED TO BEAT ME ..........C THREATENED TO LEAVE/THROW ME OUT OF HOME ...............D BEAT ME/PHYSICALLY ASSAULTED .........E TOOK OR DESTROYED METHOD ............F SEXUALLY ASSAULTED ME .............G OTHER ___________________________ X</td>
<td>0</td>
</tr>
<tr>
<td>Have you ever asked your current/most recent partner to use a condom?</td>
<td>YES .................................................1 NO .............................................2 Don’t know/Don’t remember ...............8 REFUSED .........................................9</td>
<td>⇒21</td>
</tr>
<tr>
<td>Has your current/most recent husband/partner ever refused to use a condom?</td>
<td>YES .................................................1 NO .............................................2 Don’t know/Don’t remember ...............8 REFUSED .........................................9</td>
<td>⇒21</td>
</tr>
<tr>
<td>In what ways did he let you know that he disapproved of using a condom?</td>
<td>TOLD ME HE DID NOT APPROVE ...........A SHOUTED/GOT ANGRY .................B THREATENED TO BEAT ME ..........C THREATENED TO LEAVE/THROW ME OUT OF HOME ...............D BEAT ME/PHYSICALLY ASSAULTED .........E TOOK OR DESTROYED METHOD ............F ACCUSED ME OF BEING UNFAITHFUL/ NOT A GOOD WOMAN ..............G LAUGHED AT/NOT TAKE ME SERIOUS ..H SAID IT IS NOT NECESSARY ..........I OTHER ___________________________ X</td>
<td>0</td>
</tr>
<tr>
<td>Have you ever used anything, or tried in any way, to delay or avoid getting pregnant?</td>
<td>YES .................................................1 NO .............................................2 DON’T KNOW/DON’T REMEMBER ......8 REFUSED/NO ANSWER .............9</td>
<td>⇒21</td>
</tr>
<tr>
<td>Are you currently doing something, or using any method, to delay or avoid getting pregnant?</td>
<td>YES .................................................1 NO .............................................2 DON’T KNOW/DON’T REMEMBER ......8 REFUSED/NO ANSWER .............9</td>
<td>⇒21</td>
</tr>
<tr>
<td>What (main) method are you currently using?</td>
<td>PILL/TABLETS.................................01 INJECTABLES...........................02 IMPLANTS (NORPLANT) .................03 IUD .............................................04 DIAPHRAGM/FOAM/JELLY .................05 CALENDAR/MUCUS METHOD ..............06 FEMALE STERILIZATION .................07 CONDOMS ...................................08 MALE STERILIZATION .................09 WITHDRAWAL ................................10 HERBS .......................................11 OTHER:______________________________ .96</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>DON’T KNOW/DON’T REMEMBER ..98 REFUSED/NO ANSWER .............99</td>
<td></td>
</tr>
<tr>
<td>Question</td>
<td>Response Options</td>
<td></td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>----------------------------------------</td>
<td></td>
</tr>
</tbody>
</table>
| Has husband/partner ever refused responsibility for your most recent pregnancy or to father the child? | YES ........................................1  
NO ............................................2  
DON'T KNOW/DON'T REMEMBER ...........8  
REFUSED/NO ANSWER ......................9  |
| How did he communicate this to you?                                    | Shouted at me, insulted me ............A  
Beat or kicked me .........................B  
Threw something at me .................C  
Refused to have sex with me ..........D  
Threatened to end love/partnership ..E  
Ended love/partnership ..................F  
Left home ........................................G  
Refused to live with me ...............H  
talked to me ........................................I  
Others .............................................1  |

SECTION 3: MOST RECENT PREGNANCY

<table>
<thead>
<tr>
<th>Question</th>
<th>Response Options</th>
</tr>
</thead>
</table>
| I would like to ask you about your most recent pregnancy. At the time you became pregnant, did you want to become pregnant then, did you want to wait until later, did you want no (more) children, or did you not mind either way? | BECOME PREGNANT THEN .................1  
WAIT UNTIL LATER ............................2  
NOT WANT CHILDREN .........................3  
NOT MIND EITHER WAY .......................4  
REFUSED/NO ANSWER .........................5  |
| I would like to ask you about your most recent pregnancy. At the time you became pregnant, did your husband/partner want you to become pregnant then, did he want to wait until later, did he want no (more) children at all, or did he not mind either way? | BECOME PREGNANT THEN .................1  
WAIT UNTIL LATER ............................2  
NOT WANT CHILDREN .........................3  
NOT MIND EITHER WAY .......................4  
REFUSED/NO ANSWER .........................5  |
| I would like to ask you about your past pregnancies. At ANY time you became pregnant before this pregnancy, did you want to become pregnant then, did you want to wait until later, did you want no (more) children, or did you not mind either way? | BECOME PREGNANT THEN .................1  
WAIT UNTIL LATER ............................2  
NOT WANT CHILDREN .........................3  
NOT MIND EITHER WAY .......................4  
N/A .............................................5  
DON'T KNOW/DON'T REMEMBER ............8  
REFUSED/NO ANSWER .........................9  |
| How old were you when you first became pregnant even if it did not lead into a live birth? | AGE [ ] [ ] YEARS  |
| Who made the decision about having your most recent pregnancy?           | MYSELF ......................................1  
PARTNER ........................................2  
PARTNER AND MYSELF .......................3  
JUST HAPPENED ................................4  
OTHERS ..........................................5  |
| Do you have an intention to have another pregnancy?                      | YES .........................................1  
NO .............................................2  
REFUSED/NO ANSWER .........................3  |
| Does your partner have an intention of having another pregnancy with you? | YES .........................................1  
NO .............................................2  
DON'T KNOW/DON'T REMEMBER ............8  
REFUSED/NO ANSWER .........................9  |
<table>
<thead>
<tr>
<th>Question</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>How many months pregnant were you at the time you register at the maternity (ANC) clinic?</td>
<td>[ ...... ]</td>
</tr>
<tr>
<td></td>
<td>NEVER..................................2</td>
</tr>
<tr>
<td></td>
<td>NO ANSWER................................3</td>
</tr>
<tr>
<td></td>
<td>DONT KNOW..........................4</td>
</tr>
<tr>
<td>How many times did you visit the maternity clinic during your most recent pregnancy?</td>
<td>[ ...... ]</td>
</tr>
<tr>
<td>Did/ your husband/partner ever try to stop you or encourage you or have no interest in whether you received antenatal care for your pregnancy?</td>
<td>STOP................................................402</td>
</tr>
<tr>
<td></td>
<td>ENCOURAGE..................................</td>
</tr>
<tr>
<td></td>
<td>NO INTEREST.............................3</td>
</tr>
<tr>
<td>Did the father of this child buy ‘preparation’ for your baby? If so was it adequate and in time?</td>
<td>Yes................................................402</td>
</tr>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>No..............................................402</td>
</tr>
<tr>
<td></td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>No answer.....................................402</td>
</tr>
<tr>
<td>Would you say he bought or gave you some money to buy ‘preparation’ late or in time?</td>
<td>Early ........................................3</td>
</tr>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Late...........................................3</td>
</tr>
<tr>
<td></td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Good time....................................3</td>
</tr>
<tr>
<td></td>
<td>No answer.....................................402</td>
</tr>
<tr>
<td>Would you say the clothing/preparation adequate or inadequate?</td>
<td>Adequate.....................................309</td>
</tr>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Inadequate....................................3</td>
</tr>
<tr>
<td></td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>No answer.....................................402</td>
</tr>
<tr>
<td>Did your husband/partner have preference for a son, daughter or did it not matter whether it is a boy or a girl?</td>
<td>SON.............................................3</td>
</tr>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>DAUGHTER......................................3</td>
</tr>
<tr>
<td></td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>DOES NOT MATTER...........................3</td>
</tr>
<tr>
<td>During your recent pregnancy, did you smoke any cigarettes or use tobacco?</td>
<td>YES..............................................309</td>
</tr>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>NO...............................................3</td>
</tr>
<tr>
<td></td>
<td>DON’T KNOW/DON’T REMEMBER.............309</td>
</tr>
<tr>
<td></td>
<td>REFUSED/NO ANSWER........................309</td>
</tr>
<tr>
<td>How much did your baby weigh at birth? RECORD FROM HEALTH CARD WHERE POSSIBLE</td>
<td>KG FROM CARD [ ]</td>
</tr>
<tr>
<td></td>
<td>KG FROM RECALL [ ]</td>
</tr>
<tr>
<td></td>
<td>DON’T KNOW/DON’T REMEMBER.............309</td>
</tr>
<tr>
<td></td>
<td>REFUSED/NO ANSWER........................309</td>
</tr>
<tr>
<td>May I please have a look at your clinic card? Remember, as i said before kept confidentially. Appgar scale: Read the appgar scale, head circumference, mother’s and child’s HIV test from the card</td>
<td>Apgar scale ..................................</td>
</tr>
<tr>
<td></td>
<td>Head circumference .....................</td>
</tr>
<tr>
<td></td>
<td>Mother’s HIV test Positive = 1 Negative =1</td>
</tr>
<tr>
<td></td>
<td>Baby’s HIV test Positive = 1 Negative =1</td>
</tr>
<tr>
<td>Did your most recent pregnancy ended in you having the following?</td>
<td>premature baby........................1</td>
</tr>
<tr>
<td></td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Still birth..................................</td>
</tr>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>c-section....................................</td>
</tr>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>2</td>
</tr>
<tr>
<td>How many days did you stay in the hospital/clinic when you delivered this baby?</td>
<td>[  ] days</td>
</tr>
<tr>
<td></td>
<td>Did not give birth in clinic/hospital...1</td>
</tr>
<tr>
<td></td>
<td>2</td>
</tr>
</tbody>
</table>
### SECTION 4 OTHER EXPERIENCES

In their lives, many women experience different forms of violence from relatives, other people that they know, and/or from strangers. If you don’t mind, I would like to briefly ask you about some of these situations. Everything that you say will be kept private. May I continue?

#### 401a

**Before the age of 15 years, has anyone ever excessively beaten or physically mistreated you in any way?**

**IF YES:**
- Who did this to you?
- PROBE:
  - How about a relative?
  - How about someone at school or work?
  - How about a friend or neighbour?
  - A stranger or anyone else?

| NO ONE ................................................. A  |
| FATHER .................................................. B  |
| STEPFATHER ....................................... C  |
| OTHER MALE FAMILY MEMBER .......... D  |
| FEMALE FAMILY MEMBER: _______ E  |
| TEACHER ............................................ F  |
| POLICE/ SOLDIER ......................... G  |
| MALE FRIEND OF FAMILY ............. H  |
| FEMALE FRIEND OF FAMILY ......... I  |
| BOYFRIEND ....................................... J  |
| STRANGER .......................................... K  |
| SOMEONE AT WORK ......................... L  |
| PRIEST/RELIGIOUS LEADER ........... M  |
| OTHER (specify): _____________ X  |

#### 402

**Before the age of 15 years, has anyone ever forced you to have sex or ever touched you sexually when you did not want to?**

**IF YES:**
- Who did this to you?
- PROBE:
  - How about a relative?
  - How about someone at school or work?
  - How about a friend or neighbour?
  - A stranger or anyone else?

| NO ONE ................................................. A  |
| FATHER .................................................. B  |
| STEPFATHER ....................................... C  |
| OTHER MALE FAMILY MEMBER .......... D  |
| FEMALE FAMILY MEMBER: _______ E  |
| TEACHER ............................................ F  |
| POLICE/ SOLDIER ......................... G  |
| MALE FRIEND OF FAMILY ............. H  |
| FEMALE FRIEND OF FAMILY ......... I  |
| BOYFRIEND ....................................... J  |
| STRANGER .......................................... K  |
| SOMEONE AT WORK ......................... L  |
| PRIEST/RELIGIOUS LEADER ........... M  |
| OTHER (specify): _____________ X  |

#### 403

**How many times did this happen?**

**b) ASK ONLY FOR THOSE MARKED.**

| NO ONE ................................................. A  |
| FATHER .................................................. B  |
| STEPFATHER ....................................... C  |
| OTHER MALE FAMILY MEMBER .......... D  |
| FEMALE FAMILY MEMBER: _______ E  |
| TEACHER ............................................ F  |
| POLICE/ SOLDIER ......................... G  |
| MALE FRIEND OF FAMILY ............. H  |
| FEMALE FRIEND OF FAMILY ......... I  |
| BOYFRIEND ....................................... J  |
| STRANGER .......................................... K  |
| SOMEONE AT WORK ......................... L  |
| PRIEST/RELIGIOUS LEADER ........... M  |
| OTHER (specify): _____________ X  |

#### 404

**At what age were you when you first had sexual intercourse?**

|  |  |  | (yyyy) |

#### 405

Which of the following statements most closely describes your experiences the first time you had sexual intercourse?

- I was willing......................... 1
- I was persuaded...................... 2
- I was tricked......................... 3
- I was forced......................... 4
- I was raped......................... 5
<table>
<thead>
<tr>
<th>Question</th>
<th>Response Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Who was this with?</td>
<td>Boyfriend ........................................2</td>
</tr>
<tr>
<td></td>
<td>Teacher ...............................................3</td>
</tr>
<tr>
<td></td>
<td>Father/family member ................................4</td>
</tr>
<tr>
<td></td>
<td>Man from school/area ................................5</td>
</tr>
<tr>
<td></td>
<td>Friend of the family ..................................6</td>
</tr>
<tr>
<td></td>
<td>Relative ...............................................7</td>
</tr>
<tr>
<td></td>
<td>Stranger/unknown person ................................8</td>
</tr>
<tr>
<td></td>
<td>Others ...................................................9</td>
</tr>
<tr>
<td>How old was he when you had sexual intercourse with him? Would you say he was?</td>
<td>[ ] [ ] Younger than me ..................................1</td>
</tr>
<tr>
<td></td>
<td>Same age with me .......................................2</td>
</tr>
<tr>
<td></td>
<td>1-2 years older than me ..................................3</td>
</tr>
<tr>
<td></td>
<td>3-5 years older than me ..................................4</td>
</tr>
<tr>
<td></td>
<td>5-10 years older than me ..................................5</td>
</tr>
<tr>
<td></td>
<td>More than 10 years older than me ..........................6</td>
</tr>
<tr>
<td></td>
<td>REFUSED/NONE ANSWER ..................................9</td>
</tr>
<tr>
<td>The number of sexual partners women have had differs a lot from person to person. Some women report having had one sex partner, some 2 or more, and still others report many, even 50 or more. In your life how many different men have you had sex with?</td>
<td>PARTNERS ................................................. [ ] [ ] [ ]</td>
</tr>
<tr>
<td>IF NEEDED PROBE: More or less; I do not need to know the exact number.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DON’T KNOW/DON’T REMEMBER ................................98</td>
</tr>
<tr>
<td></td>
<td>REFUSED/NONE ANSWER ..................................99</td>
</tr>
<tr>
<td>When were you a child, was your mother hit by your father (or her husband or boyfriend)?</td>
<td>YES ...............................................................1</td>
</tr>
<tr>
<td></td>
<td>NO ..............................................................2</td>
</tr>
<tr>
<td></td>
<td>PARENTS DID NOT LIVE TOGETHER ..........................3</td>
</tr>
<tr>
<td></td>
<td>DON’T KNOW ...............................................8</td>
</tr>
<tr>
<td></td>
<td>REFUSED/NONE ANSWER ..................................9</td>
</tr>
<tr>
<td>As a child, did you see or hear this violence?</td>
<td>YES ...............................................................1</td>
</tr>
<tr>
<td></td>
<td>NO ..............................................................2</td>
</tr>
<tr>
<td></td>
<td>DON’T KNOW ...............................................8</td>
</tr>
<tr>
<td></td>
<td>REFUSED/NONE ANSWER ..................................9</td>
</tr>
<tr>
<td>As far as you know, was your (most recent) partner’s mother hit or beaten by her husband?</td>
<td>YES ...............................................................1</td>
</tr>
<tr>
<td></td>
<td>NO ..............................................................2</td>
</tr>
<tr>
<td></td>
<td>PARENTS DID NOT LIVE TOGETHER ..........................3</td>
</tr>
<tr>
<td></td>
<td>DON’T KNOW ...............................................8</td>
</tr>
<tr>
<td></td>
<td>REFUSED/NONE ANSWER ..................................9</td>
</tr>
<tr>
<td>Did your (most recent) husband/partner see or hear this violence?</td>
<td>YES ...............................................................1</td>
</tr>
<tr>
<td></td>
<td>NO ..............................................................2</td>
</tr>
<tr>
<td></td>
<td>DON’T KNOW ...............................................8</td>
</tr>
<tr>
<td></td>
<td>REFUSED/NONE ANSWER ..................................9</td>
</tr>
</tbody>
</table>
SECTION 5 CURRENT OR MOST RECENT PARTNER CHARACTERISTICS
I would now like you to tell me a little about your current/most recent husband/partner.

<table>
<thead>
<tr>
<th>Question</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>501 How old was your husband/partner on his last birthday?</td>
<td>AGE (YEARS) ................................................................ [ ] [ ]</td>
</tr>
<tr>
<td>PROBE: MORE OR LESS</td>
<td></td>
</tr>
<tr>
<td>IF MOST RECENT PARTNER DIED: How old would he be now if he were alive?</td>
<td></td>
</tr>
<tr>
<td>502 In what year was he born?</td>
<td>YEAR ...................................................................... [ ] [ ] [ ]</td>
</tr>
<tr>
<td></td>
<td>DON’T KNOW/DON’T REMEMBER ......... 98</td>
</tr>
<tr>
<td></td>
<td>REFUSED/NO ANSWER ................................................................ 99</td>
</tr>
<tr>
<td>503 Did he ever attend formal school?</td>
<td>YES ........................................................................... 1</td>
</tr>
<tr>
<td></td>
<td>NO ........................................................................... 2</td>
</tr>
<tr>
<td></td>
<td>DON’T KNOW/DON’T REMEMBER ......... 8</td>
</tr>
<tr>
<td></td>
<td>REFUSED/NO ANSWER ................................................................ 9</td>
</tr>
<tr>
<td>504 What is the highest level of education that he achieved? MARK HIGHEST LEVEL.</td>
<td>PRIMARY .................................................................. 1</td>
</tr>
<tr>
<td></td>
<td>SECONDARY .................................................................. 2</td>
</tr>
<tr>
<td></td>
<td>HIGHER .................................................................... 3</td>
</tr>
<tr>
<td></td>
<td>DON’T KNOW ................................................................ 8</td>
</tr>
<tr>
<td></td>
<td>REFUSED/NO ANSWER ................................................................ 9</td>
</tr>
<tr>
<td>505 IF CURRENTLY WITH PARTNER: Is he currently working, looking for work or unemployed, retired or studying?</td>
<td>WORKING ....................................................................... 1</td>
</tr>
<tr>
<td>IF NOT CURRENTLY WITH PARTNER: Towards the end of your relationship was he working, looking for work or unemployed, retired or studying?</td>
<td>LOOKING FOR WORK/UNEMPLOYED ................................................................................................................. 2</td>
</tr>
<tr>
<td></td>
<td>RETIRED ....................................................................... 3</td>
</tr>
<tr>
<td></td>
<td>STUDENT ....................................................................... 4</td>
</tr>
<tr>
<td></td>
<td>DISABLED/LONG TERM SICK ................................................................... 5</td>
</tr>
<tr>
<td></td>
<td>DON’T KNOW/DON’T REMEMBER ......... 98</td>
</tr>
<tr>
<td></td>
<td>REFUSED/NO ANSWER ................................................................ 9</td>
</tr>
<tr>
<td>506 What kind of work does/did he normally do? SPECIFY KIND OF WORK</td>
<td>PROFESSIONAL: .................................................................. 1</td>
</tr>
<tr>
<td></td>
<td>SEMI-SKILLED: .................................................................. 2</td>
</tr>
<tr>
<td></td>
<td>UNSKILLED/MANUAL: ................................................................ 3</td>
</tr>
<tr>
<td></td>
<td>MILITARY/POLICE: ................................................................ 4</td>
</tr>
<tr>
<td></td>
<td>OTHER: ........................................................................ 96</td>
</tr>
<tr>
<td></td>
<td>DON’T KNOW/DON’T REMEMBER ......... 8</td>
</tr>
<tr>
<td></td>
<td>REFUSED/NO ANSWER ................................................................ 9</td>
</tr>
<tr>
<td>507</td>
<td></td>
</tr>
<tr>
<td>508 As far as you know was your current/most recent husband/partner beaten regularly by someone in his family</td>
<td>YES ........................................................................... 1</td>
</tr>
<tr>
<td></td>
<td>NO ........................................................................... 2</td>
</tr>
<tr>
<td></td>
<td>DON’T KNOW/DON’T REMEMBER ......... 8</td>
</tr>
<tr>
<td></td>
<td>REFUSED/NO ANSWER ................................................................ 9</td>
</tr>
<tr>
<td>509 Does/did your husband/partner drink alcohol?</td>
<td>YES ........................................................................... 1</td>
</tr>
<tr>
<td></td>
<td>NO ........................................................................... 2</td>
</tr>
<tr>
<td></td>
<td>DON’T KNOW/DON’T REMEMBER ......... 8</td>
</tr>
<tr>
<td></td>
<td>REFUSED/NO ANSWER ................................................................ 9</td>
</tr>
<tr>
<td>510 How often does/did your husband/partner drink alcohol?</td>
<td>EVERY DAY OR NEARLY EVERY DAY ................................... 1</td>
</tr>
<tr>
<td>1. Every day or nearly every day</td>
<td>ONCE OR TWICE A WEEK ................................................................ 2</td>
</tr>
<tr>
<td>2. Once or twice a week</td>
<td>1–3 TIMES IN A MONTH ................................................................ 3</td>
</tr>
<tr>
<td>3. 1–3 times a month</td>
<td>LESS THAN ONCE A MONTH ................................................................ 4</td>
</tr>
<tr>
<td>4. Occasionally, less than once a month</td>
<td>NEVER ........................................................................ 5</td>
</tr>
<tr>
<td>5. Never</td>
<td>DON’T KNOW/DON’T REMEMBER ......... 8</td>
</tr>
<tr>
<td></td>
<td>REFUSED/NO ANSWER ................................................................ 9</td>
</tr>
<tr>
<td>511 In the past 12 months (In the last 12 months of your last relationship), how often have you seen (did you see) your husband/partner drunk? Would you say most days, weekly, once a month, less than once a month, or never?</td>
<td>MOST DAYS ..................................................................... 1</td>
</tr>
<tr>
<td></td>
<td>WEEKLY ........................................................................ 2</td>
</tr>
<tr>
<td></td>
<td>ONCE A MONTH .................................................................. 3</td>
</tr>
<tr>
<td></td>
<td>LESS THAN ONCE A MONTH ................................................. 4</td>
</tr>
<tr>
<td></td>
<td>NEVER ........................................................................ 5</td>
</tr>
<tr>
<td></td>
<td>DON’T KNOW/DON’T REMEMBER ......... 98</td>
</tr>
<tr>
<td></td>
<td>REFUSED/NO ANSWER ................................................................ 99</td>
</tr>
</tbody>
</table>
In your opinion, can a married woman refuse to hit/beat his wife if:

a) She does not complete her household work to his satisfaction
b) She disobeys him
c) She refuses to have sexual relations with him
d) She asks him whether he has other girlfriends
e) He suspects that she is unfaithful
f) He finds out that she has been unfaithful

In your opinion does a man have a good reason to generally agree or disagree with the statement. There are no right or wrong answers.

<table>
<thead>
<tr>
<th>Timeframe</th>
<th>YES</th>
<th>NO</th>
<th>DK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Every day or nearly every day</td>
<td>1</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Once or twice a week</td>
<td>1</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>1 – 3 times a month</td>
<td>1</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Less than once a month</td>
<td>1</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Never</td>
<td>1</td>
<td>2</td>
<td>8</td>
</tr>
</tbody>
</table>

Since you have known him, has he ever been involved in a physical fight with another man?

- Yes
- No
- Don’t know/don’t remember
- Refused/no answer

<table>
<thead>
<tr>
<th>Timeframe</th>
<th>YES</th>
<th>NO</th>
<th>DK</th>
</tr>
</thead>
<tbody>
<tr>
<td>During the day</td>
<td>1</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>1 – 3 times a day</td>
<td>1</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Weekly</td>
<td>1</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Once or twice a week</td>
<td>1</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Once a month</td>
<td>1</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Less than once a month</td>
<td>1</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Never</td>
<td>1</td>
<td>2</td>
<td>8</td>
</tr>
</tbody>
</table>

SECTION 5a ATTITUDES TOWARDS PARTNER BEATING

In this community and elsewhere, people have different ideas about families and what is acceptable behaviour for men and women in the home. I am going to read to you a list of statements, and I would like you to tell me whether you generally agree or disagree with the statement. There are no right or wrong answers.
## SECTION 6  RESPONDENT AND HER PARTNER

When two people marry or live together, they usually share both good and bad moments. I would now like to ask you some questions about your current and past relationships and how your husband/partner treats (treated) you. I would again like to assure you that your answers will be kept secret, and that you do not have to answer any questions that you do not want to.

<table>
<thead>
<tr>
<th></th>
<th>In general, do (did) you and your (current or most recent) husband/partner discuss the following topics together:</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>601</td>
<td>a) Things that have happened to him in the day</td>
<td>YES</td>
<td>NO</td>
<td>DK</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>b) Things that happen to you during the day</td>
<td>1</td>
<td>2</td>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>c) Your worries or feelings</td>
<td>1</td>
<td>2</td>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>d) His worries or feelings</td>
<td>1</td>
<td>2</td>
<td>8</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>In general, do (did) you and your (current or most recent) husband/partner discuss together how you should have sex, when, how often?</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>602</td>
<td>RARELY ......................................................................1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>OFTEN.........................................................................3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>DON’T DISCUSS.....................................................89</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>REFUSED/NO ANSWER.............................................99</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>In your relationship with your (current or most recent) husband/partner, how often would you say that you quarrelled? Would you say rarely, sometimes or often?</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>603</td>
<td>RARELY .................................................................1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>OFTEN .......................................................................3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>DON’T KNOW/DON’T REMEMBER ..........................8</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>REFUSED/NO ANSWER .........................................9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>In your opinion do you think it is a woman’s responsibility, man’s responsibility or both’s responsibility to avoid getting pregnant?</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>604</td>
<td>Woman........................................................................1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Man..........................................................................2</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Both .........................................................................3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## DECISION MAKING SUBSCALE

I am now going to ask you about some situations that are true for many women. Thinking about your (current or most recent) husband/partner, would you say it is generally true that he:

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>605</td>
<td>a) Tries to keep you from seeing your friends</td>
<td>SEEING</td>
<td>YES</td>
<td>NO</td>
<td>DK</td>
</tr>
<tr>
<td></td>
<td>b) Tries to restrict contact with your family of birth</td>
<td>FRIENDS</td>
<td>1</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>c) Insists on knowing where you are at all times.</td>
<td>FAMILY</td>
<td>1</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>d) Gets angry if you speak with another man.</td>
<td>WANTS</td>
<td>1</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>e) Is often suspicious that you are unfaithful</td>
<td>TO KNOW</td>
<td>1</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>f) Asks you to ask his permission before seeking health care for yourself</td>
<td>GETS</td>
<td>1</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>a) Seeing</td>
<td>ANGRY</td>
<td>1</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>b) Contact</td>
<td>SUSPICIO</td>
<td>1</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>c) Family</td>
<td>US</td>
<td>1</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>d) Wants</td>
<td>HEALTH</td>
<td>1</td>
<td>2</td>
<td>8</td>
</tr>
</tbody>
</table>

172
### Emotional Violence

Has your current (or most recent) husband/partner or any other partner ever...

<table>
<thead>
<tr>
<th></th>
<th>A) If YES continue with B. If NO skip to next item</th>
<th>B) Has this happened during the 12 months before recent pregnancy?</th>
<th>C) Has this happened during the most recent pregnancy?</th>
<th>D) Has this happened after you disclosed your HIV test result to your partner during most recent pregnancy?</th>
<th>E) During most recent pregnancy would you say that this has happened once, twice or thrice/more?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>YES NO</td>
<td>YES NO</td>
<td>YES NO</td>
<td>YES NO</td>
</tr>
<tr>
<td>1</td>
<td>a) Insulted you or made you feel bad about yourself?</td>
<td>1 2</td>
<td>1 2</td>
<td>1 2</td>
<td>1 2</td>
</tr>
<tr>
<td>2</td>
<td>b) Belittled or humiliated you in front of other people?</td>
<td>1 2</td>
<td>1 2</td>
<td>1 2</td>
<td>1 2</td>
</tr>
<tr>
<td>1</td>
<td>c) Done things to scare or intimidate you on purpose (e.g. by the way he looked at you, by yelling and smashing things)?</td>
<td>1 2</td>
<td>1 2</td>
<td>1 2</td>
<td>1 2</td>
</tr>
<tr>
<td>2</td>
<td>d) Threatened to hurt you or someone you care about?</td>
<td>1 2</td>
<td>1 2</td>
<td>1 2</td>
<td>1 2</td>
</tr>
</tbody>
</table>

### Physical Violence

Has your current (or most recent) husband/partner, or any other partner ever...

<table>
<thead>
<tr>
<th></th>
<th>A) If YES continue with B. If NO skip to next item</th>
<th>B) Has this happened during the 12 months before recent pregnancy?</th>
<th>C) Has this happened during the most recent pregnancy?</th>
<th>D) Has this happened after you disclosed your HIV test result to your partner during most recent pregnancy?</th>
<th>E) During most recent pregnancy would you say that this has happened once, twice or thrice/more?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>YES NO</td>
<td>YES NO</td>
<td>YES NO</td>
<td>YES NO</td>
</tr>
<tr>
<td>1</td>
<td>a) Slapped you or thrown something at you that could hurt you?</td>
<td>1 2</td>
<td>1 2</td>
<td>1 2</td>
<td>1 2</td>
</tr>
<tr>
<td>2</td>
<td>b) Pushed you or shoved you or pulled your hair?</td>
<td>1 2</td>
<td>1 2</td>
<td>1 2</td>
<td>1 2</td>
</tr>
<tr>
<td>1</td>
<td>c) Hit you with his fist or with something else that could hurt you?</td>
<td>1 2</td>
<td>1 2</td>
<td>1 2</td>
<td>1 2</td>
</tr>
<tr>
<td>2</td>
<td>d) Kicked you, dragged you or beaten you up?</td>
<td>1 2</td>
<td>1 2</td>
<td>1 2</td>
<td>1 2</td>
</tr>
<tr>
<td>1</td>
<td>e) Choked or burnt you on purpose?</td>
<td>1 2</td>
<td>1 2</td>
<td>1 2</td>
<td>1 2</td>
</tr>
<tr>
<td>2</td>
<td>f) Threatened to use or actually used a gun, knife or other weapon against you?</td>
<td>1 2</td>
<td>1 2</td>
<td>1 2</td>
<td>1 2</td>
</tr>
</tbody>
</table>
### ECONOMIC VIOLENCE

<table>
<thead>
<tr>
<th>608</th>
<th>SEXUAL VIOLENCE</th>
<th>A) (If YES continue with B. If NO skip to next item)</th>
<th>B) Has this happened during the 12 months before recent pregnancy?</th>
<th>C) Has this happened during the most recent pregnancy?</th>
<th>D) Has this happened after you disclosed your HIV test result to your partner during most recent pregnancy?</th>
<th>E) During most recent pregnancy would you say that this has happened once, twice or thrice/more?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>YES NO</td>
<td>YES NO</td>
<td>YES NO</td>
<td>YES NO</td>
<td>YES NO</td>
</tr>
<tr>
<td>609</td>
<td>ECONOMIC VIOLENCE</td>
<td>Has your husband or partner (current or previous) ever...</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>A) (If YES continue with B. If NO skip to next item)</td>
<td>B) Has this happened during the 12 months before recent pregnancy?</td>
<td>C) Has this happened during the most recent pregnancy?</td>
<td>D) Has this happened after you disclosed your HIV test result to your partner during most recent pregnancy?</td>
<td>E) During most recent pregnancy would you say that this has happened once, twice or thrice/more?</td>
</tr>
<tr>
<td>a)</td>
<td>prohibited you from getting a job, going to work, trading, earning money or participating in income generating projects?</td>
<td>YES NO</td>
<td>YES NO</td>
<td>YES NO</td>
<td>YES NO</td>
<td>YES NO</td>
</tr>
<tr>
<td>b)</td>
<td>taken your earnings from you if you have had any income?</td>
<td>YES NO</td>
<td>YES NO</td>
<td>YES NO</td>
<td>YES NO</td>
<td>YES NO</td>
</tr>
<tr>
<td>c)</td>
<td>forced you or your children to leave the house where you were living?</td>
<td>YES NO</td>
<td>YES NO</td>
<td>YES NO</td>
<td>YES NO</td>
<td>YES NO</td>
</tr>
<tr>
<td>d)</td>
<td>not provided money to run the house or look after the children, but has money for other things?</td>
<td>YES NO</td>
<td>YES NO</td>
<td>YES NO</td>
<td>YES NO</td>
<td>YES NO</td>
</tr>
</tbody>
</table>
VIOLENCE IN PREVIOUS PREGNANCIES

610 You said that you have been pregnant ____ times. Was there ever a time when you were slapped, hit or beaten by (any of) your partner(s) while you were pregnant?

YES ......................................................... 1
NO ............................................................ 2
DON’T KNOW/DON’T REMEMBER .............. 8
REFUSED/NO ANSWER .............................. 9
  ➞ 6 14

611 Were you ever punched or kicked in the abdomen while you were pregnant? Did this happen in the last pregnancy?

IF RESPONDENT WAS PREGNANT ONLY ONCE, CIRCLE CODE ‘1’.

YES ......................................................... 1
NO ............................................................ 2
DON’T KNOW/DON’T REMEMBER .............. 8
REFUSED/NO ANSWER .............................. 9

612 During the most recent pregnancy in which you were beaten, was the person who has slapped, hit or beaten you the father of the child?

YES .......................................................... 1
NO ............................................................ 2
DON’T KNOW/DON’T REMEMBER .............. 8
REFUSED/NO ANSWER .............................. 9

613 Compared to before you were pregnant, did the slapping/beating (REFER TO RESPONDENT’S PREVIOUS ANSWERS) get less, stay about the same, or get worse while you were pregnant? By worse I mean, more frequent or more severe.

GOT LESS .................................................. 1
STAYED ABOUT THE SAME ..................... 2
GOT WORSE ............................................. 3
DON’T KNOW/DON’T REMEMBER .............. 8
REFUSED/NO ANSWER .............................. 9

614 Has anyone ever forced you to have sex or to perform a sexual act or ever touched you sexually when you did not want to at the time you were pregnant but not during the most recent pregnancy?

YES ......................................................... 1
NO ............................................................ 2
DON’T KNOW/DON’T REMEMBER .............. 8
REFUSED/NO ANSWER .............................. 9

SECTION 7 INJURIES

I would now like to learn more about the injuries that you experienced from (any of) your partner’s acts that we have talked about (MAY NEED TO REFER TO SPECIFIC ACTS RESPONDENT MENTIONED IN SECTION 6). By injury, I mean any form of physical harm, including cuts, sprains, burns, broken bones or broken teeth, or other things like this.

701 Have you ever been injured as a result of these acts by (any of) your husband/partner(s). Please think of the acts that we talked about before.

YES ......................................................... 1
NO ............................................................ 2
DON’T KNOW/DON’T REMEMBER .............. 8
REFUSED/NO ANSWER .............................. 9
  ➞ 703

702 Has this happened during the most recent pregnancy?

YES ......................................................... 1
NO ............................................................ 2
DON’T KNOW/DON’T REMEMBER .............. 8
REFUSED/NO ANSWER .............................. 9
  ➞ 703

703 In your life did you ever lose consciousness because of what (any of your) your husband/partner(s) did to you?

YES ......................................................... 1
NO ............................................................ 2
DON’T KNOW/DON’T REMEMBER .............. 8
REFUSED/NO ANSWER .............................. 9
  ➞ 705

704 Has this happened during your most recent pregnancy?

YES ......................................................... 1
NO ............................................................ 2
DON’T KNOW/DON’T REMEMBER .............. 8
REFUSED/NO ANSWER .............................. 9

705 In your life, were you ever hurt badly enough by (any of) your husband/partner(s) that you needed health care (even if you did not receive it)? IF YES: How many times? IF NOT SURE: More or less?

TIMES NEEDED HEALTH CARE ............. [ ] [ ]
DON’T KNOW/DON’T REMEMBER ........... 99

If 00 go to S.8

706 Has this happened during the last 12 months?

YES ......................................................... 1
NO ............................................................ 2
DON’T KNOW/DON’T REMEMBER .............. 8
REFUSED/NO ANSWER .............................. 9
A lot of people have found that they needed to start or continue having sex with someone whilst they receive certain items such as food, a place to stay (shelter), money, gifts, clothes, etc. I will say out some statements so that you confirm if you once did that or not.

**SECTION 8: TRANSACTIONAL SEX/SEXUAL RISK BEHAVIOURS**

<table>
<thead>
<tr>
<th>Statement</th>
<th>True</th>
<th>False</th>
</tr>
</thead>
<tbody>
<tr>
<td>A lot of people have found that they needed to start or continue having</td>
<td></td>
<td></td>
</tr>
<tr>
<td>sex with someone whilst they receive certain items such as food, a place</td>
<td></td>
<td></td>
</tr>
<tr>
<td>to stay (shelter), money, gifts, clothes, etc. I will say out some</td>
<td></td>
<td></td>
</tr>
<tr>
<td>statements so that you confirm if you once did that or not.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have stayed with a main partner longer than I wanted to because I was</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>worried about how to pay for things I couldn’t afford by myself, having a</td>
<td></td>
<td></td>
</tr>
<tr>
<td>place to live or paying for food, or other bills, my ability to support my</td>
<td></td>
<td></td>
</tr>
<tr>
<td>children or someone else who depends on me for financial support, OR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>maintaining the social status or lifestyle that my partner provided for me</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have had a relationship with a casual partner in part because I hoped</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>he would help me pay for things I couldn’t afford by myself, having a</td>
<td></td>
<td></td>
</tr>
<tr>
<td>place to live or paying for food, or other bills, my ability to support my</td>
<td></td>
<td></td>
</tr>
<tr>
<td>children or someone else who depends on me for financial support, OR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>maintaining the social status or lifestyle that my partner provided for me</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have had sex with a once-off partner because I needed help paying for</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>things I couldn’t afford by myself, having a place to live or paying for</td>
<td></td>
<td></td>
</tr>
<tr>
<td>food, or other bills, my ability to support my children or someone else</td>
<td></td>
<td></td>
</tr>
<tr>
<td>who depends on me for financial support, OR maintaining the social</td>
<td></td>
<td></td>
</tr>
<tr>
<td>status or lifestyle that my partner provided for me</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### SECTION 8a: HIV TESTING

I would like to ask you about your relations with your partner after you tested for HIV during the current pregnancy. Remember I said I will not ask you about your HIV status in this interview and I do not need to know your status at all.

<table>
<thead>
<tr>
<th>Question</th>
<th>Answers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have you ever been treated/diagnosed of an STI during your most recent pregnancy?</td>
<td>YES........................................1  NO........................................2  DON'T KNOW/DON'T REMEMBER... 8  REFUSED/NO ANSWER...........9</td>
</tr>
<tr>
<td>Have you ever had sex with a person who injects drugs (injection drug user)?</td>
<td>YES........................................1  NO........................................2  DON'T KNOW/DON'T REMEMBER... 8  REFUSED/NO ANSWER...........9</td>
</tr>
<tr>
<td>Have you ever had sex with a partner who was once diagnosed of an STD/STI?</td>
<td>YES........................................1  NO........................................2  DON'T KNOW/DON'T REMEMBER... 8  REFUSED/NO ANSWER...........9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Question</th>
<th>Answers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did you test for HIV during pregnancy?</td>
<td>Yes,........................................1  No,........................................2  REFUSED/NO ANSWER.........................9</td>
</tr>
<tr>
<td>Did you know your results before testing during pregnancy?</td>
<td>YES........................................1  NO........................................2  REFUSED/NO ANSWER.........................9</td>
</tr>
<tr>
<td>Did you tell your husband/partner about your HIV test result?</td>
<td>YES........................................1  NO........................................2  REFUSED/NO ANSWER.........................9</td>
</tr>
<tr>
<td>Are you planning to tell your husband/partner about your HIV test result?</td>
<td>YES........................................1  NO........................................2  REFUSED/NO ANSWER.........................9</td>
</tr>
<tr>
<td>When do you think you will tell him?</td>
<td>Within 3 days.........................1  Within a week..........................2  Within a month...................3  Within three months........4  Within six months..........5  No, I will not tell him...6  I do not know............................7</td>
</tr>
<tr>
<td>How long did it take you to disclose your HIV test results to your husband/partner?</td>
<td>Within three days.........................1  Within a week..........................2  Within a month...................3  Within three months........4  Within six months..........5  Over six months.................6</td>
</tr>
<tr>
<td>814</td>
<td><strong>What was his reaction after telling him or after he knew your HIV status?</strong></td>
</tr>
<tr>
<td>-----</td>
<td>--------------------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>Helped me.................................................A</td>
</tr>
<tr>
<td></td>
<td>Shouted at me.............................................B</td>
</tr>
<tr>
<td></td>
<td>Supported me..............................................C</td>
</tr>
<tr>
<td></td>
<td>Violence..................................................D</td>
</tr>
<tr>
<td></td>
<td>Emotional violence.....................................E</td>
</tr>
<tr>
<td></td>
<td>Thought about his HIV status........................F</td>
</tr>
<tr>
<td></td>
<td>Asked about my sexual history.........................G</td>
</tr>
<tr>
<td></td>
<td>consulted the doctor/nurse..............................H</td>
</tr>
<tr>
<td></td>
<td>Threatened to beat me...................................J</td>
</tr>
<tr>
<td></td>
<td>Threatened rejecting me.................................J</td>
</tr>
<tr>
<td></td>
<td>Rejected me................................................K</td>
</tr>
<tr>
<td></td>
<td>Withdrew sexual intercourse............................L</td>
</tr>
<tr>
<td></td>
<td>Took other sexual partners..............................M</td>
</tr>
<tr>
<td></td>
<td>I don’t know...............................................n</td>
</tr>
<tr>
<td></td>
<td>Was happy...................................................O</td>
</tr>
<tr>
<td></td>
<td>Others........................................................X</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>815</th>
<th><strong>Why did you not tell him your HIV test result?</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>I do not know much about HIV................................A</td>
</tr>
<tr>
<td></td>
<td>He might leave me............................................B</td>
</tr>
<tr>
<td></td>
<td>He might be afraid of catching HIV from me...............C</td>
</tr>
<tr>
<td></td>
<td>He might get angry with me..................................D</td>
</tr>
<tr>
<td></td>
<td>He might think I am a bad person...........................E</td>
</tr>
<tr>
<td></td>
<td>He might tell others.........................................F</td>
</tr>
<tr>
<td></td>
<td>He has many problems to deal with at the moment........G</td>
</tr>
<tr>
<td></td>
<td>There is no need to tell him until I am sick.............H</td>
</tr>
<tr>
<td></td>
<td>I do not worry about that....................................I</td>
</tr>
<tr>
<td></td>
<td>I might be forced to leave his house/him..................J</td>
</tr>
<tr>
<td></td>
<td>He might hurt me physically................................K</td>
</tr>
<tr>
<td></td>
<td>Other..........................................................L</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>816</th>
<th><strong>Do you think your relationship with your partner changed for the better or for the worse or did not change after telling him your HIV status?</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Better................................................................1</td>
</tr>
<tr>
<td></td>
<td>Worse...............................................................2</td>
</tr>
<tr>
<td></td>
<td>Nothing changed...................................................3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>817</th>
<th><strong>Did you tell any other person about your HIV status?</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>YES........................................................................1</td>
</tr>
<tr>
<td></td>
<td>NO..........................................................................2</td>
</tr>
<tr>
<td></td>
<td>Refused/No answer..................................................9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>818</th>
<th><strong>Who did you tell?</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Friend..................A</td>
</tr>
<tr>
<td></td>
<td>Relative................B</td>
</tr>
<tr>
<td></td>
<td>Neighbour..............C</td>
</tr>
<tr>
<td></td>
<td>Parent(s).................D</td>
</tr>
<tr>
<td></td>
<td>Organisation............E</td>
</tr>
<tr>
<td></td>
<td>Counsellor.............F</td>
</tr>
<tr>
<td></td>
<td>Pastor..................G</td>
</tr>
<tr>
<td></td>
<td>Health worker..........H</td>
</tr>
<tr>
<td></td>
<td>Others..specify.........I</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>819</th>
<th><strong>What type of support did you receive from him/her?</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Counselling..................................................1</td>
</tr>
<tr>
<td></td>
<td>Money...........................................................2</td>
</tr>
<tr>
<td></td>
<td>Information..................................................3</td>
</tr>
<tr>
<td></td>
<td>Medicines/drugs.................................4</td>
</tr>
<tr>
<td></td>
<td>Others.......................................................5</td>
</tr>
<tr>
<td></td>
<td>Nothing.......................................................6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>820</th>
<th><strong>Does your partner know his HIV status?</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>YES.........................................................1</td>
</tr>
<tr>
<td></td>
<td>NO.....................................................2</td>
</tr>
<tr>
<td></td>
<td>REFUSED/NO ANSWER....................................9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>821</th>
<th><strong>In your opinion is he willing to get tested?</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>YES.........................................................1</td>
</tr>
<tr>
<td></td>
<td>NO.....................................................2</td>
</tr>
<tr>
<td></td>
<td>Don’t know.............................................3</td>
</tr>
<tr>
<td></td>
<td>REFUSED/NO ANSWER....................................9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>822</th>
<th><strong>Have you asked him to get tested?</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>YES.........................................................1</td>
</tr>
<tr>
<td></td>
<td>NO.....................................................2</td>
</tr>
<tr>
<td></td>
<td>REFUSED/NO ANSWER....................................9</td>
</tr>
</tbody>
</table>
SECTION 9 COMPLETION OF INTERVIEW

901 We have now finished the interview. Do you have any comments, or is there anything else you would like to add?

________________________________________________________________________________________
________________________________________________________________________________________
________________________________________________________________________________________
________________________________________________________________________________________
________________________________________________________________________________________

902 I have asked you about many difficult things. How has talking about these things made you feel....?
WRITE DOWN ANY SPECIFIC RESPONSE GIVEN BY RESPONDENT

GOOD/BETTER ...............1
BAD/WORSE ...................2
SAME/ NO DIFFERENCE ...3

903 Would you like to be interviewed again on these women’s health issues next month?
Yes..............................1
No.................................2

FINISH
I would like to thank you very much for helping us. I appreciate the time that you have taken. I realize that these questions may have been difficult for you to answer, but it is only by hearing from women themselves that we can really understand about their health and experiences of violence.

IF RESPONDENT HAS DISCLOSED PROBLEMS/VIOLENCE: From what you have told us, I can tell that you have had some very difficult times in your life. No one has the right to treat someone else in that way. However, from what you have told me I can see also that you are strong, and have survived through some difficult circumstances.

Here is a list of organizations that provide support, legal advice and counselling services to women in HARARE. Please do contact them if you would like to talk over your situation with anyone. Their services are free, and they will keep anything that you say private. You can go whenever you feel ready to, either soon or later on.

904 RECORD TIME OF END OF INTERVIEW: Hour [ ] [ ] | min [ ] [ ] (24 h)

Interviewer Comments (after interview)
________________________________________________________________________________________
________________________________________________________________________________________
________________________________________________________________________________________
________________________________________________________________________________________
________________________________________________________________________________________
Appendix L: PhD Conference Papers and Posters


REFERENCES


182


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