A study to determine factors associated with domestic violence among concordant and discordant couples in Zimbabwe

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Abstract

Background*: HIV/AIDS and domestic violence are two of the major health problems affecting the lives of millions of people worldwide. Many people have fallen victim to these two pandemics especially in sub-Saharan Africa and much of the developing countries.*

Aim*: In the present paper, we investigate factors associated with domestic violence amongst four couple groups namely: concordant negative, concordant positive, discordant male positive and discordant female positive.*

Methods*: Data from the Zimbabwe Demographic Health Survey (2005-2006) was used to run a Chi-square test to compare couples on demographic factors, economic factors and decision making. A logistic regression model which helps to control for confounding was fitted to identify factors associated with domestic violence for the different couple groupings.*

Results*: Domestic violence prevalence ranges from 39.4% to 53.5% for the four couple groupings, which is quite high requiring corrective measures. Concordant positive couples experienced the most domestic violence with 53.5% reporting that they experienced domestic violence and discordant female positive couples experienced the least domestic violence with 39.4% of them reporting that they experienced domestic violence. Among the factors associated with domestic violence, it was found that wealth has an inverse relationship with domestic violence, meaning the richer the couples the lesser the number of cases of domestic violence.*

Conclusion*: Higher household economic status was associated with less domestic violence in marriage and thus we recommend that communities engage in income generating projects as an indirect way of reducing domestic violence.*

Key words: Concordant couples, discordant couples and Logistic regression model

1 Introduction

Human immunodeficiency virus (HIV) and Acquired immunodeficiency Syndrome (AIDS) and domestic violence are two of the major health problems affecting the lives of millions of women worldwide. Many people have fallen victim to these two pandemics especially in sub-Saharan Africa and much of the developing countries. This is due to their far reaching social, economic and public health consequences. Domestic violence is a neglected public health problem that in recent times has gained the attention of researchers, policymakers, and practitioners. Many studies have been carried out to try and determine its effects and magnitude in different countries. [10] found that 20 to 50 percent of women experience violence from their intimate male partners globally. In Zimbabwe, 95 percent of all cases of domestic violence are perpetrated against women [1], According to Zimbabwe Demographic Health Survey (ZDHS) 1999, 51% of the women in Zimbabwe believe that men are justified to beat them.

This belief makes it difficult for them to negotiate for safe sex since they have a feeling that men can do whatever they want with their bodies. Durojaye E, 2002 noted that women in Africa continue to be vulnerable to HIV and AIDS pandemic because of violence which they experience on daily basis. For millions of women, the experience or fear of violence is a daily reality and increasingly, so is HIV and AIDS. Studies done in Sub-Saharan Africa have revealed that high rates of HIV infection occur in marriages. Couples can be classified into four groups, namely concordant negative and concordant positive, discordant male positive and discordant female positive. Concordance occurs when the couples have the same HIV status i.e. they can all be HIV positive (concordant positive) or all HIV negative (concordant negative).

Couples are said to be discordant if they have different HIV status. There are two types of discordant couple namely discordant male positive, female negative and discordant male negative female positive. [8] found out that discordance was common in countries with high HIV and AIDS prevalence. It is however important to realize that most concordant positive couples were, at some point in the past, discordant unless if both partners were HIV positive at the time they got married. Domestic violence contributes to the spread of HIV and AIDS. (From Fact Sheet: Gender and HIV/AIDS, UN Special Session on HIV/AIDS (25-27 June 2001)). The spread of HIV and AIDS seriously affects the economy of the country since most of the people who are supposed to spearhead developmental projects will be on sick beds or will be dead. This research seeks to identify factors associated with domestic violence among couples where the pandemic has been reported to be spreading very fast. The importance of examining the connections among gender equality, various types of gender-based violence, HIV and AIDS is apparent within the context of achieving the Millennium

Development Goals (MDGs), and especially, the promotion of gender equality and women's empowerment. Increasingly, as gender violence and gender inequality are cited as determining factors in women's risk of contracting HIV and AIDS, urgent inter-programmatic efforts are needed to increase women's access to health, health care, and their ability to make decisions regarding their health if we are to curb the growing rates of HIV and AIDS infection among women and reduce their susceptibility to HIV infection due to sexual violence. Children are often the unintended victims of domestic violence. They are the silent victims that are put into a dual threat when living in a home with an abuser: the threat of witnessing traumatic events and the threat of physical harm. Domestic violence should be controlled to reduce its effects on the children who are tomorrow's future. Most studies have shown that there is an association between HIV status and domestic violence but little has been done to specifically look at concordance and discordance among couples. It is with this in mind that this research tries to examine the relationship between domestic violence and the HIV status of the couple.

2 Conceptual Framework

Domestic violence

Individual and Household Characteristics

In a study conducted in Jordan, it was found that neither men's nor women's education was associated with men's perpetration of domestic violence [2] found out that men with fewer years of education were more likely to report perpetrating domestic violence in the past ten years in South Africa. A recent study from India found that, in comparison with women having some college education, women with fewer years of education had a higher risk of lifetime and recent (past year) experience of domestic violence (Jeyaseelan et al., 2007).

Wealth: A recent study in India explored the risk and protective factors for women experiencing intimate partner violence (IPV) and found that greater wealth and social support were protective against violence [2].

Number of decisions in which partner takes part: Findings on the relationship between women's decision making autonomy and their experience of domestic violence have been mixed. [5] used data from the Cebu Longitudinal Health and Nutrition Survey to look at the associations between women's reports of physical violence and household decision making. They found that male-dominated or female-dominated decision making was associated with more reports of physical violence, while joint decision making was protective. Similarly in Haiti, women who had the final say alone on major household purchases were more likely to report emotional, physical, or sexual violence than women who reported that decisions on major household purchases were made jointly (Gage, 2005). In Peru, women were more likely to report experiencing physical violence when decisions were dominated by women or when they were divided between partners than when decision making was "egalitarian" (decisions made by one person) (Flake,2005). Based on the 2003 Kenya DHS, Lawoko and colleagues (2007) found that women who reported that they had at least some say on decisions about their own health care were significantly less likely to report physical, emotional, or sexual domestic violence.

Attitudes towards wife beating: Based on data from the 2000 Haiti DHS, sexual violence was associated with women's approval of wife beating [3]. Data from men and women in refugee camps in Jordan show that both men who have perpetrated Intimate Partner Violence (IPV) and women who have experienced spousal IPV were significantly more likely to approve of wife beating than those who had not [6].

Alcohol consumption: Many studies in both the United States and developing nations found an association between alcohol consumption and domestic violence [5].

Links between domestic violence and HIV and AIDS: [9] found out that, coercive sexual intercourse may directly increase women's risk for HIV through physiological trauma if the partner is HIV infected.[4] domestic violence and threats of it may limit women's ability to negotiate safe sexual behaviours thereby putting the women at risk of contracting HIV and AIDS.

In a study done by Gielen et al, (1997) in the United States and by Rothenberg et al. (1995) in the sub-Saharan Africa it was suggested that women who disclose their HIV status to partners may be at increased risk for violence and that the threat of violence may play a key role in deterring women who wish to disclose their status to their partners

3 Methods

The Zimbabwe Demographic Health Survey (ZDHS) is conducted after every five years by the Central Statistical Office (CSO). The 2005-06 ZDHS was the first survey to cover domestic violence and malaria. The sample for the 2005-06 ZDHS was designed to provide population and health Indicator estimates at national and provincial levels. The whole country was divided into ten provinces: Manicaland, Mashonaland East, Mashonaland West, Mashonaland Central, Midlands, Masvingo, and Matebeleland North, Matebeleland South, Bulawayo and Harare. The provinces were further divided into four strata except for Harare and Bulawayo. The division was based on land use. There were altogether 34 strata. A sample of 10 800 households were selected across the whole country. The selection was conducted in two stages. The first stage was to determine the Enumeration zones (EAs) and the second stage involved the selection of households. Systematic random sampling was used to select the EAs. The selection was done independently for each of the 34 strata. The EAs in the 34 strata were further divided into three replicates of 400 EAs each. Random sampling was used to select households.

Selection criteria: All women aged 15-49 years and all men aged 15-54 years who were either permanent residents of the households in the 2005-06 ZDHS sample or visitors present in the household on the night before the survey were eligible to be selected. People living in barracks, hospitals, police camps, boarding schools and all institutional households were not selected.

HIV testing: All women and men who were eligible for HIV testing were asked to voluntarily provide five droplets of blood for the test. The protocol for the blood specimen collection and analysis was based on the anonymous linked protocol developed to MEASURE DHS. The protocol allows for the merging of the HIV results to the socio-demographic data collected in the individual questionnaires.

Secondary Data management: In this research we used secondary data from the ZDHS 2005 to 2006.
ZDHS contains data on couples, demographic data, and place of residence, HIV status and domestic violence. The ZWCR50FL file was used. This file includes data from currently married or cohabiting women aged 15-49 and their husband/partners who were administered the domestic violence module and completed the questions related to spousal violence. This file was merged with the HIV file (All HIV results) to obtain the HIV status of the men and women. Couples were classified into two groups concordant and discordant. Concordant couples were further divided into concordant positive and negative. Discordant couples were split into discordant male positive and discordant female positive. In this research we looked at any domestic violence by sex, type of union, number of decisions in which partner takes part, reasons for justifying wife beating partner, province, place of residence, number of children in the union, the wealth status of the couple and who decides on how cash is to be used. Stata 10 was used in the analysis and excel 2007 was used for imputing data into tables.

Variable coding: Variables coded were domestic violence dependent, and the following all of which were independent: Age group, province, type of residence, number of unions, number of decisions in which partner takes, reasons for which wife beating is justified, household wealth, number of children ever born in the family, age gap and education gap.

Statistical Techniques: STATA 10 was used to run frequency tables for demographic factors, economic factors and decision making. A chi-squared test was conducted to compare couples on demographic and economic factors as well as decision making. A logistic regression model was fitted to identify the factors associated with domestic violence for concordant positive, concordant negative, discordant couples. Logistic regression helps to control for confounding. In this research we used the step-wise selection procedure to choose risk factors which are significantly associated with domestic violence for concordant and discordant couples. In forward selection, variables are added one at a time starting with the most significant variable. The variable with the smallest p-value is the most significant one. For a variable to be fitted into the regression model its p-value in the univariate analysis should be less than or equal to 0.25 and a significance level of 5%. STATA 10 can check for co linearity when running logistic regression.

Co linearity occurs when two or more independent variables are correlated to the extent that they give essentially the same information about the dependent variable, which in this case is domestic violence, and causes the coefficients to be unstable. The variables are considered to be collinear if their correlation coefficient, $r = 0.5$

Ethical issues

This is a secondary data analysis. Permission was sought from the Central Statistics Office now the Zimbabwe statistical Agency (ZIMSTAT) which runs the Zimbabwe Demographic Health Survey (ZDHS) after every five years.

4 Results

Out of a total of 1 847 couples who took the HIV test and collected their results, 73.5% were concordant negative couples, 14.1% were concordant positive couples and 7.4% (Discordant male positive) and 5% (Discordant female positive) making a total of 12.4% discordant couples as shown in table 1 below.

Type of couple	**Frequency n (%)**
Concordant negative	1 357(73.5)
Concordant positive	260(14.1)
Discordant male positive	137(7.4)
Discordant female positive	93(5.0)
Total	**1 847(100)**

Table 1: Distribution of couples by HIV status

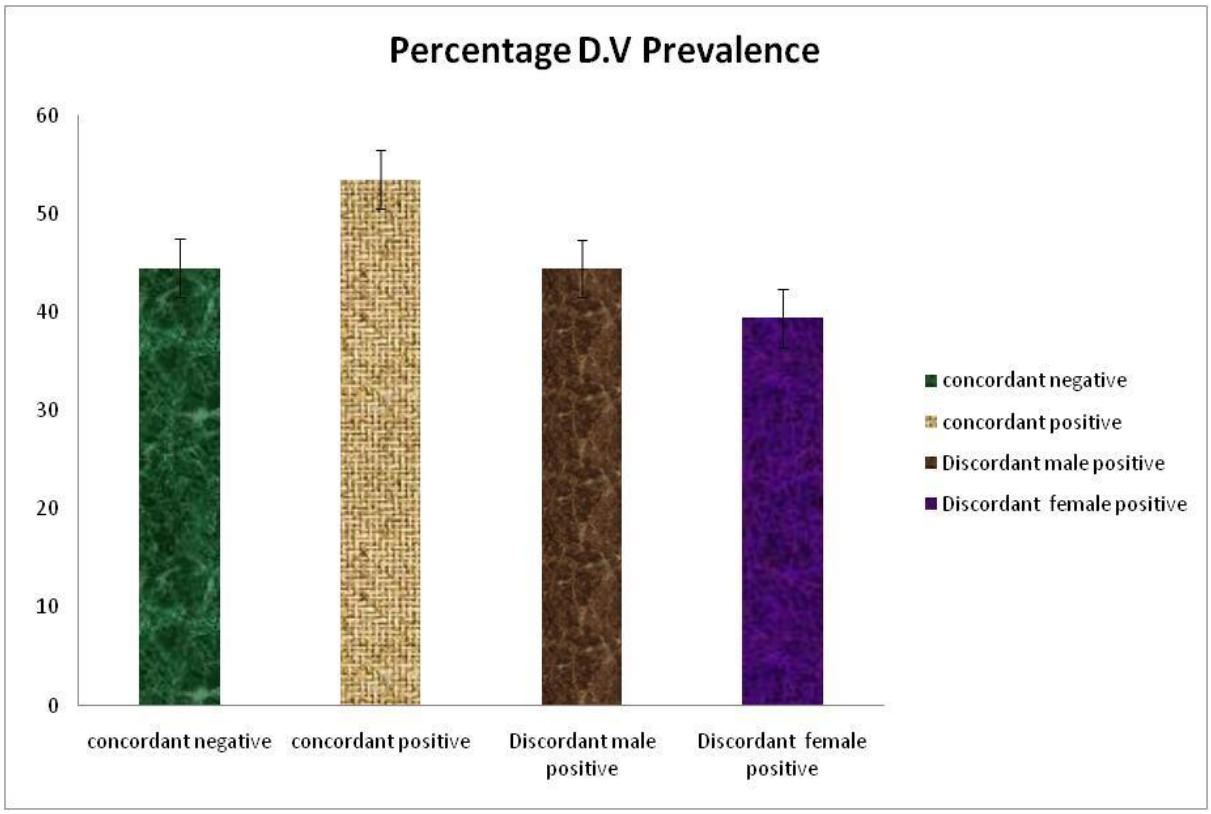

Figure 1: Domestic Violence prevalence by couple category

Concordant positive couples reported the highest domestic violence of 53.5% and the discordant female positive couples experienced the least domestic violence with 39.4% reporting to have experienced domestic violence. All the confidence intervals overlap which implies that domestic violence experienced by the different types of couples is not statistically different.

Factors Associated with D.V without controlling for confounding.

Demographic factors for all couple groupings

1. Age groups
2. Provincial location of couple
3. Educational level of couples
4. Religion
5. Number of children a couple has
6. Household wealth

Statistically significant factors for concordant negative couples were: age group, provinces, religion, and family wealth, number of unions and cash earnings combined with working. Age group, provinces, education, education gap between partners and cash work were found to be significant for concordant positive partners.

For discordant male positive only household wealth was found to be statistically significant. Provinces, religion, number of decisions in which partner takes part and number of reasons for which wife beating is justified were found to be statistically significant for discordant female positive couples.

Factors associated with D.V for Concordant negative couples which are statistically significant after controlling for confounding using multiple logistic regression.

For concordant negative, provinces, number of children ever born and house hold wealth were factors found to be statistically significant after using multiple logistic regression to control for confounding. While in comparison with concordant positive, only provinces were found to be significant.

Variables	Odds ratio/confidence interval	P-values
Provinces		
Manicaland	1.0	-
Mashonaland Central	1.0(0.63-1.61)	0.976
Mashonaland East	2.1(1.25-3.40)	0.005
Mashonaland West	1.6(0.97-2.50)	0.065
Matebeleland North	0.8(0.45-1.38)	0.403
Matebeleland South	1.7(0.92-3.27)	0.086
Midlands	2.3(1.54-3.56)	0
Masvingo	0.9(0.59-1.51)	0.814
Harare	1.8(1.05-3.26)	0.034
Bulawayo	0.6(.28-1.27)	0.183
Number of children ever born		
0	1.0	-
1 or 2	2.2(1.28-3.67)	0.004
3 or 4	2.0(1.18-3.470)	0.01
5+	1.6(0.90-2.72)	0.109
Household wealth		
Lowest quintile	1.0	-
Second quintile	0.8(0.55-1.03)	0.073
Third quintile	0.6(0.41-0.84)	0.003
Fourth quintile	0.5(0.37-0.78)	0.001
Highest quintile	0.3(0.18-0.49)	0

Table 2: Significant factors for concordant negative couples after adjusting for the effects of other variables

From Table 2 above, women living in the Midlands province were 2.3 times more likely to experience domestic violence as compared to people living in Manicaland and staying in Bulawayo was protective against domestic violence as compared to staying in Manicaland. Women with 1 or 2 children were 2.2 times more likely to experience domestic violence as compared to women with no children. The more the children the woman had the less likely she was to experience domestic violence. In our own opinion if a couple has no children, each of them is free to leave the other in the case of domestic violence knowing that there are no children to suffer. With that in mind, each of the couples tends to avoid violence tendencies. Household wealth was protective against any domestic violence. Women staying in households' with more family wealth experienced the least domestic violence. It is interesting to note that only provinces were significant for concordant positive couples. Further just like in the case of concordant negative couples, women in the Midlands province were 4.4 times more likely to experience domestic violence as compared to their counter parts in Manicaland. The graph below shows the comparison between the two couple groupings.

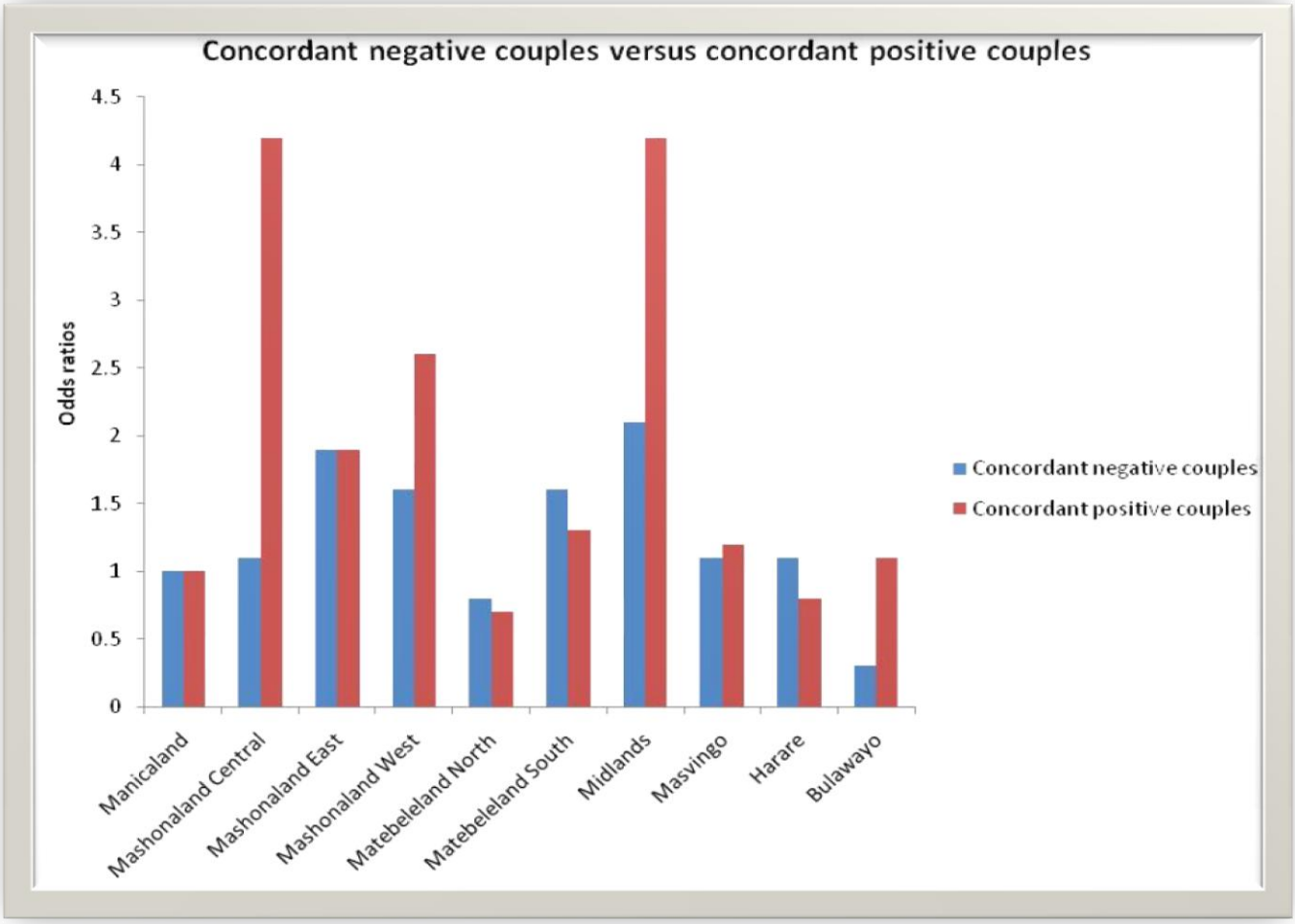

Figure 2: Domestic violence per province: Concordant negative versus positive

For the case of discordant male positive couples, Household wealth is significantly associated with domestic violence after adjusting for the effect of other variables. Women whose household wealth was in the third quintile were 80% less likely to experience domestic violence as compared to women whose household wealth was in the lowest quintile.

For the case of discordant female positive couples, Number of reasons for which wife beating is justified, type of union, who decides on how to use cash and household wealth were found to be the factors significantly associated with domestic violence. Women in polygamous union were 4.4 times more likely to experience domestic violence than those in monogamous union.

5 Discussion and Recommendations

We managed to obtain the prevalence of domestic violence for all the four types of couples. Results show that discordant female positive couples experienced the least percentage of domestic violence. This was not what was expected. Studies show that women are blamed for bringing the HIV into the marriage and as a result experience more domestic violence. Household wealth was significantly associated with domestic violence for three types of couples not all four which is consistent with what [10] found in Vietnam. They found that though household wealth was protective against domestic violence it was not consistently significant. Higher household economic status was associated with less domestic violence in marriage in Vietnam [4]. In Mexico, household socioeconomic status was not consistently associated with women's reports of physical violence by partners in the 12 months prior to the survey [8]. We also found that the number of reasons for which wife beating is justified is significantly associated with domestic violence for discordant female positive couples which is what [2] found in a study among men in Cape Town, South Africa. They found that men who believe that wife beating was acceptable were likely to perpetrate violence against a partner in the past 10 years. We recommend that more educational campaigns against domestic violence be undertaken in provinces like Midlands where prevalence is high possibly due to cultural beliefs, norms and values.

Furthermore government should discourage polygamous unions by perhaps giving incentives for those in monogamous unions if domestic violence is to be reduced in Zimbabwe. Women empowerment is most welcome as this ensures better wealth and subsequently a reduction in domestic violence.

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