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Female Autonomy and Intimate Partner Violence: Findings from the Zimbabwe Demographic and Health Survey, 2015

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Abstract

Intimate partner violence (IPV) is a persistent social problem in Zimbabwe and has been linked to dominant patriarchal attitudes that promote the superiority of men in marital relationships while denying women agency. Using the 2015 Zimbabwe Demographic and Health Survey data, we examined the influence of female autonomy on IPV. Our analysis was restricted to 2847 women who were in some form of sexual union. Consistent with earlier studies, our results show that more than 40% of the women had experienced some form of IPV. The most prevalent forms of IPV was emotional violence, followed by physical violence and sexual violence. Low levels of economic autonomy and supportive attitudes towards wife-beating increased the risk of IPV, while late marriage reduced the risk of all forms of IPV. The findings provide a basis for interventions that may increase economic control and improve decision making for women, although the association between economic violence and economic decision making requires further research that examines the possibility of reverse causality.

Keywords: decision-making; female autonomy; IPV; Zimbabwe

Introduction

Intimate partner violence (IPV) is a far-reaching and multi-faceted societal problem that is associated with various health and societal consequences (Word Health Organisation, WHO 2013; Rahman et al. 2013). Globally, it is estimated that one in three women have experienced IPV at some point in their lives, although these estimates vary widely between countries (Jewkes et al. 2017; Abramsky et al. 2011). Several social and demographic predictors, such as age at first marriage, spousal age difference, education, alcohol consumption, marriage type and household characteristics have been investigated, and in some cases, these predictors have been found to be inconsistently associated with IPV (Adebowale 2018; Atteraya, Gnawali and Song 2015; Abramsky et al. 2011). This has led some scholars to argue that IPV "is entirely a product of its social context" (Jewkes 2002: 1423) and that determinants may vary from one context to another (Tenkorang 2018).

In Zimbabwe, IPV exists alongside political violence, harsh economic conditions and is linked to patriarchal behaviour (Fidan and Bui 2016; Wekwete et al. 2014) and regarded as a structural driver of HIV and AIDS (Mugweni, Pearson and Omar 2012; Shamu et al. 2014). Despite the gains made in education and the structural changes towards gender equality, the combination of patriarchal cultural practices and gender inequality continues to subjugate, dehumanise and demean women (Fidan and Bui 2016; Chitakure 2016). In some communities, traditional beliefs that justify wife-beating are used to rationalise the use of violence against women, while marriage practices, such as paying bridewealth, which culturally gives the husband sexual rights over the wife, have been linked to sexual violence (Chitakure 2016; Wojcicki, van der Straten and Padian 2010). Moreover, the patriarchal nature of many Zimbabwean communities excludes women from household decision-making, and where they are involved, the patriarchal aunt or mother is given authority over the wife (Chitakure 2016). These restrictions can increase marital discord and lead to violent relationships (Tenkorang 2018; Rahman et al. 2013). Thus, understanding IPV in a country like Zimbabwe requires examining the problem in the context of female agency, gender roles and family life. These issues influence the control that Zimbabwean women have over decisions that affect many aspects of their lives.

Research has identified a positive association between higher levels of autonomy for women within their households and improved maternal and health outcomes (Yilmaz 2018; Thapa and Niehof 2013). Greater autonomy for women has also been linked to lower levels of fertility (Osamor and Grady 2016) and child mortality (Adhikari and Sawangdee 2011) as well as better health and educational outcomes for family members (Hendrick and Marteleto 2017). However, evidence regarding the link between IPV and female autonomy is less clear, with some studies presenting the latter as a protective factor, while other studies show the opposite. In a study conducted in China (Tu and Lou 2017), women with low financial autonomy were found to be at greater risk of IPV, while another study in Ghana found evidence of economic decision-making by women being positively associated with emotional violence (Tenkorang 2018). Inconsistent results have also been found within countries. For instance, using nationally representative data from Bangladesh, Rahman et al. (2013) found that women who had high levels of autonomy and decision-making power were less likely to

report all forms of IPV, while two studies in the same country (Koenig et al. 2003; Fakir et al. 2016) found that greater autonomy was associated with increased risk.

Explanations for these differences have been linked to methodological differences and the diversity of definitions of autonomy indicators that remain debatable, and perhaps even context-specific (Schuler and Sohela 2018; Rahman et al. 2013). Other scholars have argued for the endogeneity of female autonomy and IPV, suggesting that there might be simultaneous or reverse causality (Fakir et al. 2016). The argument presented is that men might resort to IPV to reinforce their dominance when they feel that patriarchal norms are being challenged. On the other hand, there is also the belief that women who have low autonomy, especially financial autonomy are less likely to show resistance due to fear that the husband might leave them (Fakir et al. 2016). These debates notwithstanding, the present study focuses only on the effect of autonomy on IPV. In a highly patriarchal country such as Zimbabwe, it is necessary to understand whether empowering women to make decisions can increase or inhibit IPV.

To date, relatively few studies have examined the effect of female autonomy on IPV in Africa with a recent systematic review by Osamor and Grady (2016) on women's autonomy and health care decision-making finding that only 17 studies had assessed this aspect. In Zimbabwe, the research on IPV has mostly focused on its prevalence (Fidan and Bui 2016) and associations with women's reproductive health, especially HIV and AIDS (Shamu et al. 2014; Mugweni, Pearson and Omar 2012), IPV against women with disabilities (Rugoho and Maphosa 2015, mental health and IPV (Machisa and Shamu 2018). Research on women's autonomy as a construct has received little attention, although there are a few studies that have included some indicators of autonomy in their measures of women empowerment (Wekwete et al. 2014; Shamu, Shamu and Machisa 2019).

Defining female autonomy in the context of IPV

Although several definitions of the concept of female autonomy have been used in the literature, the central theme has focused on the ability to make decisions (Tenkorang 2018; Rahman et al. 2013). This thinking is rooted in the wellbeing concept (Sen 1999; Kabeer 1999) and assumes that a woman's capacity to make decisions on matters that affect her wellbeing is central to the eradication of gender inequalities. In this study, as decision-making in the mainly patriarchal Zimbabwean society is the privilege of males, this conception of autonomy is also preferred. Autonomy is defined as the power and agency that a woman possesses in the family or household (Hasselberger 2012) and is understood in the context of a woman's social relationships (Osamor and Grady 2016). This is because, in social relationships such as a marriage, decisions are made by an 'embedded self'; thus, autonomy should be recognised as a form of interdependence, rather than independence (Tenkorang 2018; Osamor and Grady 2016). Taking this position, therefore, in this study, a woman is said to have some autonomy if she has a say in family decision making, either individually or jointly.

Different indicators of autonomy have been used in the literature. For instance, Willie, Callands and Kersha (2018) focused on sexual autonomy, measured as condom use assertiveness as well as sexual communication. Other studies have used economic decision-making, family planning decision-making, and freedom of movement as dimensions of autonomy (Tenkorang 2018; Rahman et al. 2013). Following this earlier

research, we also measure female autonomy using the dimensions of: i) economic decision-making; ii) personal health care decision-making, and iii) freedom of movement. We hypothesised that women who had freedom of choice in these three areas were less likely to be at risk of IPV.

Methods

To examine the influence of female autonomy on IPV in Zimbabwe, data from the 2015 Zimbabwe Demographic and Health Survey (ZDHS) was used. Using the couples' recode file, we extracted 3499 cases of ever married or partnered women. We restricted our analysis only to those women who were currently married or in some form of sexual union and had also provided complete information on the indicators of IPV and autonomy that were included in this study. This resulted in the initial exclusion of 533 cases. On one of the variables, spousal age difference, we additionally excluded a few cases (119) where the woman was older than the husband/partner as this category constituted less than 4% of the eligible sample. Thus, our final analytic sample consisted of 2847 women. The ZDHS is a cross-sectional nationally representative study of health and demographic indicators of women aged 15-49. Approximately 11 000 households were sampled using a two-stage cluster sampling design which was also stratified by region as well as urban or rural residence. The 2012 Zimbabwe Population Census was used as the sampling frame and participants were selected for inclusion from the country's 10 provinces.

Measures

The main outcome variable was IPV while female autonomy was the primary explanatory variable. The descriptions of the variables used in this study are presented in the following section.

Intimate partner violence

The ZDHS included thirteen questions on lifetime experience of emotional, physical and sexual violence. The participants were asked if their husband/partner had:

a) Humiliated, threatened them with harm, insulted or made them feel bad = Emotional Violence ;
b) Pushed, shaken or thrown something at them; slapped; punched; kicked or dragged; strangled or burnt; threatened with a knife, gun or another weapon; arm twisted, or hair pulled = Physical Violence ;
c) Physically forced them into unwanted sex; forced into unwanted sexual acts; physically forced to perform unwanted sexual acts = Sexual Violence .

A yes response to any of these questions on emotional, physical and sexual violence was coded as having experienced that form of IPV. We also created a composite dichotomous variable, any IPV, which was a measure of ever experiencing emotional, physical and sexual violence. That is, if a woman responded yes to any of the thirteen questions, she was captured as (1) having experienced any IPV, otherwise 0.

Female autonomy

To establish female autonomy, data was extracted from the ZDHS that related to economic decision-making, freedom of movement and health decision-making. Regarding economic decision-making the following questions were asked: Who usually makes decisions about: a) how to spend respondent's earnings; b) how to spend husband's earnings; and c) large household purchases? Women's economic dependency has been widely acknowledged as a risk factor for IPV (Postmus et al. 2018; Rahman et al. 2013). Economic independence might provide freedom from abuse in some contexts, but it can also have an opposite effect where men use violence as a way of compensating for the perceived loss of power. The freedom of movement indicator consisted of two questions: Who makes decisions about: a) visiting family and relatives; and b) visiting a health centre or hospital. We drew on several studies (Osamor and Grady 2016; Rahman et al. 2013) which have shown that women's freedom of movement is an enabling factor in helping women to make their own choices, to change their attitudes, to improve their social networks. Personal health decision-making was derived from two questions, which were: Who makes decisions about: a) their own health; b) contraceptive use. There is empirical evidence, which indicates that decision-making autonomy is associated with holistic wellbeing as it shapes women's utilisation of health facilities for delivery (Osamor and Grady 2016).

In the dataset, the responses for each of these questions on decision making were coded as: 1 - respondent alone; 2 - respondent and husband/partner; 3 - respondent and other; 4 - husband/partner alone; 5 - someone else; 6 - other; or 7 - husband not working (in the case of the person who has the final say regarding husband/partner's income). The question on decision- making about contraceptive use had the first five responses mentioned above only. Binary variables were created by merging responses 1-3 into (1) as the women having capacity, and responses 4-7 as (0) their not having capacity. For economic decision-making, women who indicated that they were not working and earning an income were considered to lack autonomy. These three dichotomised variables were then combined into a composite variable to reflect overall autonomy. Those who had a score of 3, indicating they had autonomy in all three dimensions were categorised as having high autonomy, those who participated in 1 or 2 decisions had moderate autonomy while a score of zero was recoded as low autonomy. This method has been used in previous studies that investigated female autonomy (Biswas et al. 2017; Atteraya, Gnawali and Song 2015).

Other explanatory factors

We hypothesised that the following additional factors might also influence a woman's capacity to make decisions and coded them as follows:

- *The women's and their husbands'/partners' education*: 1 = primary level education or lower; 2 = secondary level education, 3 = higher education.
- *Age difference between wife and husband:* 1= ≤0-4 years; 2 = 5-9 years; 3 = ≥10 years. Marital relationships where there is an age difference of five years or more are referred to as age-disparate relationships, while with an age difference of fewer than five years are called non-disparate relationships (Beauclair and Delva 2013). The age disparity between a woman and her partner has also been identified as a risk factor for IPV (Adebawole 2018). We contended that wider

age differences could also result in a power imbalance, where the husband would be more likely to exert control over the wife. Using data on the woman and her partner's actual age which was captured as a continuous variable in the ZDHS, we created the spousal age difference variable by subtracting the wife's age from that of her partner.

- *Age at cohabitation:* 1 = ≤17 years, 2 = 18-21 years, 3= ≥22 years. This categorisation was motivated by several factors. First, we considered that globally, marriage before the age of 18 is generally considered as child marriage (Marphatia, Ambale and Reid 2017). Secondly, Zimbabwe has a 7-4-2 basic education structure consisting of seven years of primary, followed by fours of lower secondary schooling and two years of advanced level. Thus, an individual is most likely to be 19 years of age by the time they complete this cycle. Given that some might repeat a grade or start school late, we decided to add a few years to the second category.
- *Attitudes towards IPV* were assessed by asking whether beating a wife/partner was justified if she: a) went out without telling her husband/partner; b) neglected children; c) argued with the husband; d) refused sex, and e) burnt food. The data was recorded as 0 = non-tolerant or 1 = tolerant.
- *Wealth quintile*: categorised as 1 = poor, 2 = moderate, and 3 = rich.
- We also included *socio-demographic variables* that consisted of age, religion, and place of residence. We recoded age into three categories as 1= 15-24; 2= 25-34; and 3= 35-49. Place of residence was a binary variable of 1 = Rural and 2 = Urban), while religion was transformed into a three categorical variable (1 = Christian; 2 = Apostolic; 3 = Other), as Christianity and apostolic faith are the major religions in Zimbabwe.

Data Analysis

The analysis was conducted using the Stata software (version 14). Data were also weighted to adjust for differences in the probability of selection as well as non-response bias. Given the binary nature of the outcome variable, we opted to use logistic regression models. We also used the chi-square test to examine the differences in the proportion of exposure to IPV amongst the explanatory variables selected for this study. For the logistic regression, we fitted two models for each of the IPV dimensions. The first model for each dimension estimated the influence of the female autonomy indicators on the different forms of IPV while the second model included all the controls. The results are presented as odds ratios (ORs) with their confidence intervals in brackets.

Results

Of the 2847 records extracted from the ZDHS, as presented in Table 1, approximately [1]44.6% (1269) of the women aged 15-49 had experienced some form of IPV. Of these women, 30.4% (866) had experienced emotional violence, 29.7% (846) physical violence, and 10.5% (300) sexual violence. Table 1 also shows the association between IPV and the different variables, with most, except for wealth quintile and place of residence, being found to be significantly associated with IPV. Overall, the results show that the majority of Zimbabwean women generally have decision-making power in matters relating to personal health (56.4%, 1606), freedom of movement (83.5%, 2380) and economic decision making (84,2%, 2398). Also, the results show that respondents with low decision making power or those who were tolerant of wife-beating were likely to be victims of all forms of IPV.

< Table 1 about here >

Logistic regression results

Table 2 presents the results of the logistic regression models for any IPV, emotional, physical and sexual violence. The unadjusted models for dimensions of autonomy show that low economic decision-making autonomy increased the risk of all types of IPV (OR=1.5-1.7), while the personal health and freedom of movement dimensions were for the most part insignificant. For overall autonomy, the risk was higher for women with low autonomy (OR=1.5-2.1) across all forms of IPV. Moderate autonomy only accounted for the risk of emotional, physical and sexual violence, (OR=1.2-1.3).

<Table 2 about here>

The results for the adjusted models show that low overall autonomy also increased the risk for all forms of IPV (AOR=1.5-1.9). Moderate overall autonomy increased the risk of emotional violence (AOR=1.3) while for physical and sexual violence, the estimates attenuated to non-significant levels. We do not present the estimates for the controls in the overall autonomy adjusted models, although the results generally suggest that women who were more tolerant of gender-based violence, aged 15-34 and those with a spousal age difference of less than ten years were at increased risk of IPV. We also found that low economic decision-making autonomy increased the odds of experiencing all forms of IPV (AOR=1.6-1.7). Tolerant attitudes towards wife-beating accounted for increased risk of emotional violence, physical violence and any IPV (AOR=1.3-1.4). Other factors which increased the risk of IPV include age category 25-34, (AOR 1.5-1.6) for emotional violence, physical violence, and any IPV; age category 15-24, physical violence (AOR=1.3); religion 'other' category (AOR=1.4-1.6 for physical and sexual violence, and any IPV); non-disparate spousal age difference, 0-4years(AOR 1.4-1.8 for any IPV and physical violence) and 5-9 years (AOR=1.2-1.5 for

[1] In other words, 55.4% of the women in the sample had not experienced any form of IPV. The proportions for emotional, physical and sexual violence should be read in a similar manner.

physical violence, sexual violence, and any IPV). Cohabiting at ages 18-21 reduced the risk of emotional violence, physical violence, and any IPV (AOR= 0.6-0.8) while cohabiting at age 21 reduced the risk of all forms of IPV (AOR= 0.5-0.8).

The woman's higher level of education reduced the risk of emotional violence and any IPV (AOR=0.6) while factors such as place of residence and wealth quintile accounted for emotional and physical violence, respectively. Women residing in urban areas were up to 50% more likely to report emotional violence relative to their rural counterparts, while those from the middle wealth quintile were up to 40% less likely to experience sexual violence. We did not find any significant effect of the autonomy dimensions of freedom of movement and personal health, as well as the husband or partner's education on any of the IPV forms.

Discussion

The purpose of this study was to examine the effect of female autonomy on IPV. The results show that at least one in four women in Zimbabwe has experienced some form of IPV, with emotional violence being the most prevalent form, followed by physical and sexual violence. This is consistent with literature from other parts of Africa, with a study conducted in Ghana reporting that 58% of the women surveyed had experienced emotional violence, 40%, physical violence, and 35%, sexual violence (Tenkorang 2018). In one Nigerian district, 28.2% of women had experienced physical violence, 50.1% psychological (emotional) violence EV) and sexual violence (13.6%) (Owaoje and Olaolorun 2012). Explanations for the pervasiveness of IPV in Zimbabwe have been attributed to persistent gender norms and social expectations which continue to promote male dominance at the household level (Fidan and Bui 2016; Chitakure 2016). There is also agreement in the literature that male to female IPV is influenced by the desire to enforce this dominance (Rahman et al. 2013; Tenkorang 2018).

The study also found that contrary to expectations, most Zimbabwean women have autonomy in all of the dimensions investigated in this study. We also found that economic decision making power was a strong predictor of all forms of IPV while the other forms of autonomy were largely insignificant predictors in both the adjusted and unadjusted models. Low overall autonomy, which was a composite index of the three forms also accounted for increased risk of all forms of IPV.

The lack of association between IPV and some of the autonomy indicators used in this study is not surprising, as earlier research in the field has generally shown inconsistent associations (Rahman et al. 2013; Koenig et al. 2003; Fakir et al. 2016; Schuler and Sohela 2018). It is possible that similar indicators of autonomy will have different implications in different contexts. These inconsistencies notwithstanding, the link between economic control and emotional violence is now widely acknowledged (Rahman et al. 2013; Postmus et al. 2018). Studies investigating this link have shown that economic control in marital relationships is intertwined with emotional violence and that the former should be conceptualised as a form of emotional violence. Thus, our results are an important extension of this literature and emphasise that in the Zimbabwean context, participation in household economic decisions is a significant dimension of autonomy.

In Zimbabwe, the association between emotional violence and economic decision making can also be explained by the harsh economic situation and endemic

poverty in the past three decades which has resulted in high levels of unemployment and a rise in informal trading dominated by women (Muzvidziwa 2012). Thus, there is a possibility that women through informal trading have become primary breadwinners, yet culturally, the husband is expected to make financial decisions at the household level (Wojcicki, van der Straten and Padian 2010). Research has also shown that when men have fewer resources or fewer than their wives or partners, they are most likely to use violence to compensate for the shortage of resources (Conroy 2013). There is, however, a need for more research, which explores how the current economic situation has affected marital relationships in Zimbabwe.

Tolerant attitudes towards IPV were found to be positively associated with most forms of IPV except sexual violence. Several studies have also assessed this relationship and came up with similar findings (Tenkorang 2018; Khan and Islam 2018; Tran, Nguyen and Fisher, 2016). Thus, the present study provides additional support for the relevance of including such attitudes as predictors of IPV. It has been suggested IPV has the potential to reinforce the imposition of gender norms and can be used as a way of forcing women to endorse such attitudes (Lundgren et al. 2019). Thus, women who have been exposed to dehumanising practices may end up believing that a husband's behaviour, including abusive behaviour, is always justified and right (Rahman et al. 2013; Jewkes 2002). Unfortunately, this 'internalised acceptance' propagates such gender norms and perpetuates the prevalence of IPV. Thus, to effectively end IPV, there might be a need for programmes which counter these beliefs and perhaps change attitudes about the acceptability of male to female IPV. Similar programmes have been developed in countries such as India and South Africa and have shown considerable success in reducing the prevalence of IPV as well as altering gender norms (Gibbs, Dunkle and Jewkes 2018; Santhya et al. 2019). In a society where violence is an acceptable way of resolving marital conflict, such interventions, coupled with community activism, are urgently needed.

The finding that younger age at cohabitation predisposes women to experience IPV has been echoed in several studies. In this study, approximately 35% (1009/2847) of the women had married before their 18th birthday. Similar results were reported in the Zimbabwe Multiple Indicator Cluster Survey (MICS) Report of 2014, which found that child marriages in the country in 2014 stood at 32.8%. This is despite constitutional prohibitions, which criminalise such practices (Hallfors et al. 2013). Research shows that in some families – primarily among the poor rural population, and especially among the Shona (who are predominantly traditional) young girls are continually being married early (Wojcicki, van der Straten and Padian 2010; ZMCIS 2014; Chenge and Maunganidze 2017). Some families pledge their young daughters to wealthy families *(kuzvarira)* in exchange for grain, cows or money or to avoid the expense of educating them (Chitakure 2016). There are other practices such as marrying off a young girl as a 'replacement' bride *(chimutsamapfiwa)* to a deceased older sister's husband (Chitakure 2016). A study by Hallfors et al. (2013) found affiliation with the apostolic faith sect also increased the probability of dropping out of school and early marriage amongst young girls, while Mukanangana et al. (2014) found that forced marriages were common amongst the same religious sect. Thus, there is a possibility that young girls find themselves in poorly functioning marriages from the onset (Hallfors et al. 2013). Moreover, early marriage constrains the human and socio-economic capital that young girls bring to the marriage (Marphatia, Ambale and Reid 2017). Women who marry as

children are more likely to have low education, to be poor and to be accepting of traditional gender norms, including IPV. In contrast, later marriage often coincides with enhanced educational attainment and labour force participation, both of which expand a woman's economic and social capital. Thus, later marriage has the potential to increase a woman's agency and is possibly protective against IPV.

In contrast to the literature which suggests that younger women are more likely to be at risk at IPV, our results show that the age category 15-24 did not have a significant effect on most forms of IPV. A straightforward interpretation of this finding is that the age category might be highly correlated with age at first marriage. Women aged 15-17 at the time of the survey might have also been included in our child marriage category. Nonetheless, the age category 25-34 had a significant effect on emotional violence, physical violence, and any IPV. There are studies, which have also reported similar findings, concluding that IPV is common among women in their mid-20s to early 30s (Rivara et al. 2009).

Although factors such as religion and education have been hypothesised as strong predictors of IPV, in this study, they were inconsistently associated with most forms of IPV. However, some of the effects that were present on these variables are consistent with previous studies both globally and from Zimbabwe which have shown negative associations between higher levels of education and IPV (Abramsky et al. 2011; Fidan and Bui 2016; Nyamayemombe et al. 2010). The influence of religion on IPV has not been well theorised although several small scale and qualitative studies have suggested that holding strong traditional beliefs might elevate the risk of IPV (John et al. 2018; Chenge and Maunganidze 2017; Hallfors et al. 2013).

Previous research has also shown that IPV differs by geographical location or place of residence (Abramsky et al. 2011; García-Moreno et al. 2005). However, we did not find any significant influence of geographic location on sexual and physical violence, , except for emotional violence. Women who reside in urban areas were more likely to be at risk of emotional violence relative to their rural counterparts. How can these results be interpreted? It is possible that since attitudes serve as expectations, women who reside in rural areas do not consider certain behaviours as violence as compared to those who live in urban areas. The latter also have more access to information and social networks, which can alter attitudes (Kishor and Johnson 2004). Thus, there might be heterogeneity in the socio-cultural contexts and more studies that compare these between rural and urban women in Zimbabwe are needed to understand how they interact with IPV.

Age discrepancy has been identified in several studies as a predictor of IPV. We found that in cases where the partner age difference was 0-4 years or 5-9 years, the woman was more likely to report physical violence, sexual violence and any IPV. This finding was rather surprising, as we had anticipated that in a patriarchal society when the partner age difference is wider (more than ten years); the man was likely to be more controlling resulting in a power imbalance. Nonetheless, studies examining spousal age difference and IPV have also generally shown conflicting results (Adebowale 2018; Kishor and Johnson 2004). However, our finding supports the outcome of the study by Nyamayemombe et al. (2010) who, using the 2010 ZDHS who found that women whose partners or husbands were younger or of the same age were more likely to report IPV relative to those who had partners or husbands who were 10 or more years older. It is

possible that for this sample, older partners were more mature and better able to handle marital differences (Adebowale 2018).

Limitations

Some limitations should be taken into account when interpreting the results of this study. First, the study only focuses on one direction of the relationship between autonomy and IPV; that is the effect of autonomy on IPV. Second, the survey data used in this study is drawn from self-reported responses, which could suggest both under and over-reporting of experiences of IPV. Third, the study adopted a research design that cannot be used to interpret causal relationships, and the analysis was limited to observable factors, such as reports of IPV, education, age etc., and does not allow for a full exploration of unobservable factors that may have affected the associations.

These limitations notwithstanding, the findings from this study affirm the importance of female autonomy, in particular, economic decision-making autonomy on IPV and provide the basis for interventions that may increase economic control and improve decision making for women. In other words, increasing female economic decision-making autonomy at the household level may not only be a component of a woman's wellbeing but can be an end in itself. Our findings also suggest that IPV is a multi-faceted problem that is influenced by an array of contextual and situational factors. Thus, there is need for more research, in particular, longitudinal studies, which examines the risk factors for IPV across different socio-cultural contexts and takes into consideration the prevailing socio-economic conditions. In addition, further research is required to examine the possibility of reverse causality between autonomy and IPV.

Disclosure Statement

There was no potential conflict of interest

Data availability

The data used in this study is available online from the Demographic and Health Survey website at https://dhsprogram.com

References

Abramsky, T., C.H. Watts, C. García-Moreno, Devries, K., K. Legia., Ellsberg,M, Jansen, H.A.F.M. and Heise, L. 2011. "What Factors Are Associated with Recent Intimate Partner Violence: Findings from the WHO Multi-Country Study on Women's Health and Domestic Violence?" *BMC Public Health* 11 (1): 109. https://doi.org/10.1186/1471-2458-11-109

Adebowale, A.S. 2018. "Spousal Age Difference and Associated Predictors of Intimate Partner Violence in Nigeria." *BMC Public Health* 18 (1): 212. doi:10.1186/s12889-018-5118-1.

Adhikari, R., and Y. Sawangdee. 2011. "Influence of Women's Autonomy on Infant Mortality in Nepal." *Reproductive Health* 8 (7): 1-8. doi:10.1186/1742-4755-8-7.

Atteraya, M.S., S. Gnawali, H. Song. 2015. "Factors Associated With Intimate Partner Violence Against Married Women in Nepal." *Journal of Interpersonal Violence* 30 (7): 1226–1246. doi: 10.1177/0886260514539845.

Beauclair, R and Delva, W. 2013. "Is Younger Really Safer? A Qualitative Study of Perceived Risks and Benefits of Age-Disparate Relationships among Women in Cape Town, South Africa." *PLoS One* 8 (11): e81748. doi: 10.1371/journal.pone.0081748

Biswas, A.M., T. Shovo, M. Aich, and S. Mondal. 2017. "Women's Autonomy and Control to Exercise Reproductive Rights: A Sociological Study from Rural Bangladesh." *SAGE Open* 7 (2): 1–10. doi.org/10.1177%2F2158244017709862

Chitakure, J. 2016. *Shona Women in Zimbabwe. A Purchased People? Marriage, Bridewealth, Domestic Violence, and the Christian Traditions on Women*. Eugene: Pickwick Publications.

Conroy A. A. 2013. "Gender, Power, and Intimate Partner Violence: A Study on Couples from Rural Malawi." *Journal of Interpersonal Violence* 29 (5): 866-88. doi: 10.1177/0886260513505907

Chenge, E., and L.Maunganidze. 2017. "Patterns and Circumstances of Girl Child Marriages in Mount Darwin District in Zimbabwe." *International Journal of Law, Humanities and Social Science* 1 (4): 24-40.

García-Moreno, C., H. A.F.M. Jansen, M. Ellsberg, L. Heise and C. Watts. 2005. *WHO Multi-country Study on Women's Health and Domestic Violence against Women Initial results on prevalence, health outcomes and women's responses*. Geneva: World Health Organization.

Fidan, A., and H.N. Bui. 2016. "Intimate Partner Violence against Women in Zimbabwe." *Violence against Women* 22 (9): 1075-96. doi: 10.1177/1077801215617551.

Fakir, A.M.S., A. Anjun, F. Bushra and N. Nawar. 2016. "The Endogeneity of Domestic Violence: Understanding Women Empowerment through Autonomy." *World Development Perspectives* 2: 34-42. doi.org/10.1016/j.wdp.2016.09.002

Gibbs, A., K. Dunkle and R. Jewkes. 2018. "Emotional and Economic Intimate Partner Violence as Key Drivers of Depression and Suicidal Ideation: A Cross-Sectional Study among Young Women in Informal Settlements in South Africa." *PLoS One* 13 (4): e0194885. doi:10.1371/journal.pone.0194885

Hallfors, D. D., H. Cho, B.J. Iritani, J.Mapfumo, E. Mpofu, W.K. Luseno and J. January. 2013. "Preventing HIV by Providing Support for Orphan Girls to Stay in School: Does Religion Matter?" *Ethnicity and Health* 18 (1): 53–65. doi: 10.1080/13557858.2012.694068.

Hasselberger, W. 2012. "Agency, Autonomy, and Social Intelligibility". *Pacific Philosophical Quarterly* 93 (2): 255-278. DOI: 10.1111/j.1468-0114.2012.01419.x

Hendrick, C.E. and L. Marteleto. 2017. "Maternal Household Decision-Making Autonomy and Adolescent Education in Honduras." *Population Research and Policy Review* 36 (3): 415-439. doi: 10.1007/s11113-017-9432-6.

Jewkes, R., E. Fulu, N.R. Tabassam, E. Chirwa, K. Dunkle, R. Haardörfer, R. and C. García-Moreno. 2017. "Women's and Men's Reports of Past-year Prevalence of Intimate Partner Violence and Rape and Women's Risk Factors for Intimate Partner Violence: A Multicountry Cross-Sectional Study in Asia and the Pacific." *PLoS Med* 14 (9): e1002381. https://doi.org/10.1371/journal.pmed.1002381

Jewkes, R. 2002. "Intimate Partner Violence: Causes and Prevention." *The Lancet* 359 (9315): 1423–29.

John, A.N., J. Edmeades, L. Murithi, and I. Barre. 2018. "Child Marriage and Relationship Quality in Ethiopia." *Culture, Health & Sexuality* 21 (8): 853-866. doi.org/10.1080/13691058.2018.1520919

Kabeer, N. 1999. "Resources, Agency, Achievements: Reflections on the Measurement of Women's Empowerment". *Development and Change* 30 (3): 435–464. doi.org/10.1111/1467-7660.00125

Khan, M.N., and M.M. Islam. 2018. "Women's Attitude Towards Wife-beating and its Relationship with Reproductive Healthcare Seeking Behavior: A Countrywide Population Survey in Bangladesh." *PLoS One* 13 (6): e0198833. https://doi.org/10.1371/journal.pone.0198833

Kishor, S. and K. Johnson. 2004. *Profiling Domestic Violence: A Multi-Country Study. Demographic and Health Survey Report*. Calverton MD: ORC Macro, 2004.

Koenig, M.A., S. Ahmed, M.B. Hossain, and A.B.M. Khosherd. 2003. “Women's Status and Domestic Violence in Rural Bangladesh: Individual- and Community-level Effects.” *Demography* 40 (2): 269–288. doi: 10.1353/dem.2003.0014

Lundgren, R. S. Burgess, H. Chantelois, S. Oregede, B. Kerner and A. E. Kågesten. 2019. “Processing Gender: Lived Experiences of Reproducing and Transforming Gender Norms over the Life Course of Young People in Northern Uganda.” *Culture, Health & Sexuality* 21 (40): 387-403. doi: 10.1080/13691058.2018.1471160

Machisa, M., and S. Shamu. 2018. “Mental Ill Health and Factors Associated with Men's Use of Intimate Partner Violence in Zimbabwe.” *BMC Public Health* 18 (1): 376. doi:10.1186/s12889-018-5272-5.

Marphatia, A.A., G.S. Ambale, and A.M. Reid. 2017. “Women's Marriage Age Matters for Public Health: A Review of the Broader Health and Social Implications in South Asia.” *Frontiers in Public Health* 5 (269): 1-23 269. doi:10.3389/fpubh.2017.00269.

Mugweni, E., S. Pearson, and M. Omar. 2012. “Traditional Gender Roles, Forced Sex and HIV in Zimbabwean Marriages.” *Culture, Health & Sexuality* 14 (5): 577-590. doi: 10.1080/13691058.2012.671962.

Muzvidziwa, V. 2012. “Cross-border Traders: Emerging, Multiple and Shifting Identities.” *Alternation* 19 (1): 217 – 238.

Mukanangana, F., S. Moyo, A. Zvoushe and O. Rusinga. 2014. “Gender Based Violence and its Effects on Women’s Reproductive Health: The Case of Hatcliffe, Harare, Zimbabwe.” *African Journal of Reproductive Health* 18 (1): 110-122.

Nyamayemombe, C., V. Mishra, S. Rusakaniko, C. Benedikt, M. Gwazane, and P. Mukweza. 2010. *The Association between Violence against Women and HIV: Evidence from a National Population-Based Survey in Zimbabwe. Zimbabwe Working Papers* Calverton, Maryland, USA: ICF Macro, 2010, No. 4.

Osamor, P.E., and C. Grady. 2016. “Women's Autonomy in Health Care Decision-making in Developing Countries: A synthesis of the literature”. *International ournal of Women's Health* 8: 191-202. doi: 10.2147/IJWH.S105483

Postmus, J. L., G.L, Hoge, J, Breckenridge, N, Sharp-Jeffs and D, Chung. 2018. “Economic Abuse as an Invisible Form of Domestic Violence: A Multicountry Review”. *Trauma, Violence, and Abuse* 21 (2): 261-283. doi.org/10.1177/1524838018764160

Rahman, M., K, Nakamura, K. Seino, and M. Kizuki. 2013. “Does Gender Inequity Increase the Risk of Intimate Partner Violence among Women? Evidence from a National Bangladeshi Sample”. *PLoS One* 8 (12): e82423. https://doi.org/10.1371/journal.pone.0082423

Rivara, F.P, Anderson, M.L, Fishman, P, Reid, R.J, Bonomi, A.E, Carrell, D, et al. 2009. Age, Period, and Cohort Effects on Intimate Partner Violence. *Violence and Victims* 24 (5): 627–38. doi: 10.1891/0886-6708.24.5.627

Rugoho, T., and F. Maphosa. 2015. "Gender-based Violence Amongst Women with Disabilities: A Case Study of Mwenezi District, Zimbabwe." *Gender Questions* 3 (1): 97-113. doi.org/10.25159/2412-8457/822.

Santhya, K.G, S.J. Jejeebhoy, R. Acharya, N.Pandey, A. Gogoi, M. Joshi, S.K.Singh, K. Saxena, and S.K. Ojha. 2019. "Transforming the Attitudes of Young Men about Gender Roles and the Acceptability of Violence against Women, Bihar." *Culture, Health & Sexuality* 21 (12): 1409-1424. doi: 10.1080/13691058.2019.156857

Shamu,S., Shamu, P., and Machisa, M. 2018. "Factors Associated with Past Year Physical and Sexual Intimate Partner Violence against Women in Zimbabwe: Results from a National Cluster-Based Cross-Sectional Survey." *Global Health Action* 11 (sup3): 59-68. doi: 10.1080/16549716.2019.1625594

Shamu, S., C. Zarowsky, T. Sheffer, M. Temmerman and N. Abrahams. 2014. "Intimate Partner Violence after Disclosure of HIV Test Results among Pregnant Women in Harare, Zimbabwe". *PLoS One* 9 (10): e109447. doi.org/10.1371/journal.pone.0109447

Schuler, S.T., and N. Sohela. 2018. "Does Intimate Partner Violence Decline as Women's Empowerment becomes Normative? Perspectives of Bangladesh Women". *World Development* 101: 284-292. doi:10.1016/j.worlddev.2017.09.005.

Sen, A. 1999. *Development as Freedom.* New York: Oxford University Press.

Tenkorang, E.Y. 2018. "Women's Autonomy and Intimate Partner Violence in Ghana". *International Perspectives on Sexual and Reproductive Health* 44 (2): 51-61. doi: 10.1363/44e6118.

Thapa, D.K., and A, Niehof. 2013. "Women's Autonomy and Husbands' Involvement in Maternal Health Care in Nepal". *Social Science and Medicine* 93 (September 2013): 1-10. doi: 10.1016/j.socscimed.2013.06.003.

Tran, T.D., H, Nguyen, J. Fisher. 2016. "Attitudes towards Intimate Partner Violence against Women among Women and Men in 39 Low- and Middle-Income Countries". *PloS One* 11 (11): e0167438. doi:10.1371/journal.pone.0167438

Tu, X., and C, Lou. 2017. "Risk Factors Associated with Current Intimate Partner Violence at Individual andRrelationship Levels: A Cross-sectional Study among Married Rural Migrant Women in Shanghai, China". *BMJ Open* 7 (4): e012264. doi:10.1136/bmjopen-2016-012264

Wekwete, N. N., H, Sanhokwe, W, Murenjekwa, F, Takavarasha,N, Madzingira. 2014. "Spousal Gender Based Violence and Women's Empowerment in the 2010-11 Zimbabwe Demographic Health Survey". *African Population Studies* 28 (3): 1413-1431. doi.org/10.11564/28-3-640

Willie, T.C., Callands, T.A. and T.S. Kersha. 2018. "Intimate Partner Violence, Sexual Autonomy and Postpartum STD Prevention among Young Couples: A Mediation Analysis." *Perspectives on Sexual and Reproductive Health* 50 (1): 25-32. doi: 10.1363/psrh.12050

Wojcicki, J.M., A, van der Straten, and N, Padian. 2010. "Bridewealth and Sexual and Reproductive Practices among Women in Harare, Zimbabwe". *AIDS Care* 22 (6): 705-710. doi: 10.1080/09540120903349094.

World Health Organisation (WHO). 2013. Responding *to Intimate Partner Violence and Sexual Violence against Women. WHO Clinical and Policy Guidelines* Geneva: World Health Organisation. www.who.int/reproductivehealth/publications/violence/9789241548595/en/index.html

Yilmaz, O. 2018. "Female Autonomy, Social Norms and Intimate Partner Violence against Women in Turkey". *The Journal of Development Studies* 54 (8): 1321-1337.

Zimbabwe National Statistics Agency, *Zimbabwe Multiple Cluster Indicator Survey (ZMICS) 2014, Final Report,* 2014, Harare: ZIMSTAT

Table 1: Descriptive statistics for IPV, and associations with selected variables of married women aged 15-49, 2015 ZDHS, n=2847

Variable	n	EV	PV	SV	Any IPV
Experience of IPV	2847	**30.4**	**29.7**	**10.5**	**44.6**
Overall autonomy index					
High	1283	26.8	26.8	9.2	41.0
Moderate	1098	32.2	30.2	10.2	45.9
Low	466	36.3 *	36.5 *	15.0 *	51.3 *
Economic Power index					
High	2398	29.1	28.2	9.9	42.9
Low	449	37.6 *	38.1 *	14.0 †	53.7 *
Personal Health					
High	1606	29.0	28.1	9.5	42.9
Low	1241	32.2 §	31.8 †	11.9 †	46.7 †
Mobility					
High	2380	29.3	28.9	9.8	43.5
Low	467	36.0 *	33.8 †	14.4 *	49.9 †
Attitudes towards wife-beating					
Tolerant	1019	34.7	36.1	12.0	50.7
Non-tolerant	1828	28.0 *	26.2 *	9.7 §	41.1 *
Respondent's age					
15-24	754	30.1	31.3	11.3	44.0
25-34	1329	33.1	32.6	10.4	48.1
35-49	764	26.1 *	23.2 *	10.1	39.1 *
Residence					
Urban	1160	30.9	28.6	9.7	44.5
Rural	1687	30.1	30.4	11.1	44.6
Religion					
Other	205	34.2	38.5	12.2	51.2
Apostolic	1232	30.8	31.2	11.8	46.5
Christian	1410	29.5	27.2 *	9.2 §	41.9 †
Respondent's Education					
Primary	827	32.7	33.1	11.0	47.4
Secondary	1827	30.5	29.6	10.7	44.6
Higher	193	20.2 *	16.6 *	7.3	31.6 *
Husband's Education					
Primary or lower	592	33.8	34.1	11.5	47.1
Secondary	1898	30.6	30.0	10.6	45.4
Higher	328	22.6 *	18.9 *	7.9	34.5 *

Statistical significance: §p<0.10; †p<0.05; *p<0.005. Percentages presented are for the women who experienced IPV (for instance, 30.7% of women experienced IPV, therefore 69.3% did not.) For husband or partner's education, there were 29 missing cases. Note: EV=emotional violence, PV=physical violence and SV=sexual violence. Any IPV is a composite measure of ever experiencing any form of IPV.

Table 1: Descriptive statistics for IPV, and associations with selected variables of women aged 15-49, 2015 ZDHS, N=4593, continued

Variable	n	EV	PV	SV	Any IPV
Wealth Quintile					
High	1427	29.9	28.1	9.8	43.7
Middle	439	28.9	31.9	8.9	45.6
Low	981	31.8	28.1	12.3	45.4
Age at first cohabitation				§	
17 and below	1009	34.5	36.8	12.1	50.7
18-21	1229	28.9	27.8	11.3	42.9
22 and above	609	26.8	21.8	6.4	37.8
		*	*	*	*
Age Difference					
0-4	1211	30.0	32.4	10.4	45.7
5-9	1124	30.8	28.5	11.2	44..4
10+	512	30.7	26.2	9.4	42.4
			†		

Statistical significance: §p<0.10; †p<0.05; *p<0.005

Table 2: Logistic regression results assessing the probability of experiencing IPV among married women aged 15-49, ZDHS n=2847)

Variable	EV		PV		SV		Any IPV	
	Model 1 OR(95% CI)	*Model 2* AOR(95% CI)	*Model 3* OR(95% CI)	*Model 4* AOR(95% CI)	*Model 5* OR(95% CI)	*Model 6* AOR(95% CI)	*Model 7* OR(95% CI)	*Model 8* AOR(95% CI)
[2]Overall autonomy(ref=high)								
Moderate	1.3(1.0-1.6) †	1.3(1.0-1.6) †	1.2(1.0-1.5)§	1.2(1.0 -1.5)	1.2(0.8-1.6)	1.1(0.8-1.6)	1.2(1.0-1.5) §	1.2(1.0-1.4)
Low	1.7(1.3-2.2) *	1.6(1.2-2.1)*	1.5(1.2-1.9)*	1.5(1.1-2.0) †	2.1(1.4-2.9)*	1.9(1.3-2.8)*	1.5(1.2-2.0)*	1.5(1.1-12.0)*
	Model 1 OR(95% CI)	*Model 2* AOR(95% CI	*Model 3* OR(95% CI	*Model 4* AOR(95% CI	*Model 5* OR(95% CI	*Model 6* AOR(95% CI	*Model 7* OR(95% CI	*Model 8* AOR(95% CI
Economic decision making (ref =high)								
Low	1.5(1.2-2.0)*	1.6(1.2-2.1)*	1.7(1.3-2.1)*	1.7(1.3-2.2)*	1.6(1.2--2.3) *	1.6(1.1-2.2) †	1.7(1.3-2.1) *	1.7(1.3-2.2)*
Freedom of movement (ref=high)								
Low	1.2(0.9-1.5)	1.1(0.8-1.3)	1.1(0.9-1.4)	1.0(0.7-1.2)	1.4(1.0-1.9-) §	1.2(0.9-1.7)	1.1(0.9-1.4)	1.0(0.8-1.3)
Personal Health (ref=high)								
Low	1.1(0.9-1.4)	1.1(0.9-1.3)	1.0(0.7-1.3)	1.0(0.9-1.2)	1.2(0.9-1.7)	1.2(1.0-1.5)	1.1(0.9-1.3)	1.0(0.9-1.2)
Attitudes towards wife-beating (ref= Non-tolerant)								
Tolerant-attitudes		1.3(1.1-1.6)*		1.4(1.1-1.7) *		1.1(0.9-1.4)		1.4(1.2-1.7)*
Age group (ref=35-49)								

[2] Overall autonomy was estimated separately from economic, personal health and freedom of movement decision making. Only the adjusted odds ratios (AOR) for the overall autonomy index are presented (i.e we do not present the results for the controls in these models, which are available on request).
Note: EV=emotional violence, PV=physical violence and SV=sexual violence. Any IPV is a composite measure of ever experiencing any form of IPV.

15-24	1.1(0.8-1.5	1.3(1.0-1.7) §	0.9(0.6-1.4)	1.1((0.8-1.4)
25-34	1.5(1.1-1.8)*	1.6(1.2-2.1)*	1.1(0.8-1.6)	1.5(1.2-1.8) *
Residence (ref=rural)				
Urban	1.5(1.0-2.1) †	1.2(0.8-1.7)	0.9(0.6-1.5)	1.3(0.9-1.8)

Statistical significance: §p<0.10; †p<0.05; *p<0.005

Table 2 continued: Logistic regression results assessing the probability of experiencing IPV among married women aged 15-49, ZDHS n=2847)

Variable	EV		PV		SV		Any IPV	
	Model 1 OR(95% CI)	Model 2 AOR(95% CI)	Model 3 OR(95% CI)	Model 4 AOR(95% CI0	Model 5 OR(95% CI	Model 6 AOR(95% CI)	Model 7 OR(95% CI)	Model 8 AOR(95% CI)
Religion (ref=Christian)								
Apostolic		0.9(0.7-1.2)		1.0(0.8-1.3)		1.3(0.9-1.8)		1.0(0.9-1.3)
Other		1.2(0.8-1.7)		1.4(1.0-2.0) §		1.6(1.0-2.8) §		1.4(1.0-2.0) §
Respondent's education (ref =Primary)								
High		0.6(0.4-1.0)§		0.6(0.3- 1.2)		0.8(0.3-1.7)		0.6(0.4-1.0) †
Secondary		(0.9(0.7-1.0)		1.0(0.8-1.3)		1.3(0.9-1.8)		0.9(0.8-1.2)
Partner's education (ref=Primary)								
High		0.9(0.5-1.4)		0.8(0.5-1.4)		1.0(0.6-1.8)		1.0(0.7-1.6)
Secondary		0.9(0.7-1.2)		0.9(0.7-1.2)		1.0(0.7-1.5)		1.0(0.8-1.3)
Wealth quintile (ref=poor)								
Rich		0.9(0.6-1.3)		1.1(0.7-1.6)		1.0(0.6-1.6)		1.0(0.7-1.4)
Middle		0.9(0.7-1.2)		1.2(0.9-1.7)		0.6(0.4-1.1)§		1.1(0.8-1.5)
Age at first cohabitation (ref=17 and below)								
18-21		0.8(0.6-0.9) †		0.6(0.50-0.8)*		1.0(0.7-1.4)		0.7(0.6-0.9) *
21 and above		0.8(0.6-1.0) §		0.5(0.4-0.7) *		0.6(0.4-1.0)†		0.6(0.5-0.8) *
Spousal age difference ref=10+)								
0-4 years		1.1(0.9-1.5)		1.8(1.4-2.3)*		1.4(0.9-2.2)		1.4(1.1-1.8) †
5-9 years		1.1(0.8-1.4)		1.3(1.0-1.7)§		1.5(1.0-2.3)†		1.2(1.0-1.5)§

Statistical significance: §p<0.10; †p<0.05; *p<0.005