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Intimate Partner Violence in sub-Saharan Africa: Characteristics, Patterns, and Multi-Level Influences

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Intimate Partner Violence in sub-Saharan Africa: Characteristics, Patterns, and Multi-Level Influences

by

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A Dissertation
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Intimate Partner Violence in sub-Saharan Africa: Characteristics, Patterns, and Multi-Level Influences

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ABSTRACT

Approximately one-third of women across the globe have been raped and/or assaulted by an intimate partner in their lifetimes, with these rates of intimate partner violence (IPV) exceeding 50% for women in some areas of sub-Saharan Africa. Despite these prevalence rates, however, there is little empirical work that explores potential differences in experiences of intimate partner violence (IPV). Research tends to oversimplify IPV, viewing it as a unitary homogenous experience, rather than a multifaceted experience, limiting our understanding of the different types or variations of IPV, and the factors related to them. This research begins to address this gap in knowledge using Demographic and Health Survey data collected from women in three countries in sub-Saharan Africa (Kenya, Tanzania, and Uganda), a world region with one of the highest lifetime prevalence rates of IPV. Three exploratory analyses were conducted to model diversity in IPV experiences and to examine the potential covariates for different types of IPV. Descriptive analyses and latent class analyses (LCA) were used to assess the nature of IPV experiences, including whether women experience distinct types of IPV, and what these types look like. In the final analysis, an LCA model was combined with an ecological framework, by adding multi-level covariates to the model to identify the factors in women's social-ecological environment that were differentially related to the distinct types of IPV. Findings from these analyses support the study of IPV experiences collectively among women in Kenya, Tanzania, and Uganda. For these women, IPV is not a homogenous experience. Results from the latent class analysis demonstrate that there are different types of IPV experienced among women in eastern

sub-Saharan Africa. LCA supported the selection of a five-class model of IPV. The five classes include a *No Violence* class, and four additional IPV classes. The *No Violence* class (Class 1) included women who had a low likelihood of experiencing violence (< 1%). The remaining four classes included a class of women experiencing *Predominantly Control* (Class 2), two classes of physical IPV, distinguished by the severity of abuse (e.g., *Less Severe Physical IPV* (Class 3)*, and *Severe Physical IPV* (Class 4), and a class of women experiencing *Sexual IPV* (Class 5). So, while class 1 represents experiences of women not experiencing violence, the remaining four classes describe different types of IPV. Class 2 and Class 5 both characterize types of abuse that occur in the absence of or very low likelihood of physical violence, while Class 3 and Class 4 describe abusive experiences that include elements of emotional abuse <u>and</u> physical abuse. Noteworthy here is the pervasiveness of control across all classes, even in the *No Violence* class, the finding that Sexual IPV is distinct from physical IPV (as most research tends to combine physical and sexual IPV), and the two distinct forms of physical IPV that suggest that not all physical forms of IPV are the same. These different classes of IPV were influenced differentially by the multi-level (micro-, meso-, exo-, macro-) factors across the social-ecological context, illuminating the need to include not only individual-level covariates but also relationship-level and community-level covariates when assessing factors related to IPV experiences. Implications for future research, including the need for research that seeks to understand in-depth what these types of IPV mean to women, and whether these types are evident in other locations, or if they are regionally specific are discussed.

Keywords: Latent class analysis; intimate partner violence; social-ecological model

DEDICATION

This dissertation is dedicated to my parents, Terri and Joe Peirone, my children Lucas and Ezra, and my partner, Andrew Hatfield.

Mom and dad, without your continued support, I would not have been able to do this - thank you.

Lucas and Ezra, thank you for always being so understanding about my crazy work schedule and writing time.

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I love you all.

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LIST OF ABBREVIATIONS

VAW: Violence Against Women

IPV: intimate Partner Violence

WHO: World Health Organization

CDC: Centre for Disease Control

KDHS: Kenyan Demographic Health Survey

TDHS: Tanzanian Demographic Health Survey

UDHS: Uganda Demographic Health Survey

NGO: Non-Governmental Organization

UN: United Nations

CHAPTER 1 : INTRODUCTION AND RESEARCH OBJECTIVES

Violence against women (VAW), and more specifically intimate partner violence (IPV), is a pervasive social problem (Dobash & Dobash, 2004; Dutton & Nicholls, 2005) and serious public health issue (Cavanaugh et al., 2012; World Health Organization (WHO), 2001; WHO, 2013). It has been gaining increasing global attention, especially in relation to its association with adverse demographic and health outcomes (Kishor & Johnson, 2004; National Research Council, 2015; WHO, 2013). Intimate partner violence includes physical violence, sexual violence, stalking, and psychological aggression by a current or former intimate partner (Centre for Disease Control (CDC), 2015). The far-reaching social, economic, and health impacts of intimate partner violence on individuals and communities have been documented by researchers globally, emphasizing the importance of understanding this multifaceted phenomenon and its associated patterns, causes, and outcomes (Sinha, 2013; WHO, 2010; Zhang, Hoddenbagh, McDonald, & Scrim, 2012). Global estimates suggest approximately one-third of women have been raped and/or assaulted by an intimate partner in their lifetimes (Fulu & Heise, 2015; WHO, 2013). Obscured by these statistics however are other forms and variations of intimate partner violence (Davies, Ford-Gilboe, Willson, Varcoe, Wuest, Campbell, & Scott-Storey, 2015; Smith, Thornton, DeVellis, Earp, & Coker, 2002; Sullivan, Cavanaugh, Buckner, & Edmondson, 2009; WHO, 2001). Little is known about the heterogeneous patterns of intimate partner violence and the associated risk factors for different types of violence (Cavanaugh et al., 2012). This research uses latent class analysis (LCA) to identify diverse patterns of IPV and their

correlates among women in three countries in sub-Saharan Africa, a world region with

one of the highest lifetime prevalence rates of IPV (WHO, 2013).

While the lifetime prevalence of IPV across sub-Saharan Africa is 37% (WHO,

2013), in Kenya, Tanzania, and Uganda, approximately 50% of women between the ages

of 15 and 49 report experiencing physical and/or sexual abuse by a current or former

partner (Kenya Demographic and Health Survey (KDHS), 2015; National Research

Council, 2015; Tanzania Demographic and Health Survey (TDHS), 2011; Uganda

Demographic and Health Survey (UDHS), 2012). There is a lack of understanding and

data regarding the various regional and context-specific aspects of IPV (National

Research Council, 2015). Given the immense differences between the North American

and African contexts, it is questionable whether the approaches, theories, and

interventions developed out of culturally and geographically specific norms and ways of

conceptualizing and addressing violence against women in the western world[1] are

relevant to experiences in Africa (Bowman, 2003; Goodmark, 2015). Research has

tended to oversimplify IPV viewing it as unitary rather than as multifaceted; thereby,

limiting understanding of the different types or variations of IPV (Grych & Hamby, 2014).

By focusing specifically on three geographically connected countries in eastern sub-

Saharan Africa that share specific historical and political characteristics, this research

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[1] While there are multiple terms used to reference different world regions (e.g., global north/global south, developed/developing, high-income/low-income, western/non-western), for simplicity, the terms "west" "western" or "global west" are used interchangeably throughout this dissertation to refer to wealthier global regions including Europe, the Americas, Australia, and New Zealand.

can help contribute to our knowledge and understanding of the heterogeneity and

diversity of IPV experiences and can help inform the development of regionally relevant

interventions.

Background

Table 1.1 Population Characteristics Derived from International Sources

	Kenya	**Tanzania**	**Uganda**
Population	46 million	51 million	33 million
Rural Population	74 %	68 %	85 %
% of Pop. In Poverty	36 %	28 %	19.0 %
% of Rural Pop. In Poverty	49 %	33 %	22.0 %
Average years of education	12-13 years	12-13 years	12-13 years
Female literacy rate (% 15 yrs +)	74 %	73 %	61 %
Male literacy rate (% 15 yrs +)	84 %	83 %	83 %
GDP	61.4 billion	47.4 billion	20.2 billion
GINI Index	40.8	37.8	41.0
Female % of total labor force	48.3 %	48.9 %	47.4 %
Gender Equality Rating (CPIA) (1=low to 6 = high)	3.5	3.5	3.5
"Gender equality assesses the extent to which the country has installed institutions and programs to enforce laws and policies that promote equal access for men and women in education, health, the economy, and protection under the law" (World Bank)			

* Data estimates are derived from sources (e.g., The World Bank, DHS, WHO) reporting estimates for the same or similar period the Demographic and Health Survey (DHS) data used in this research were collected in each country. As a result, while these may not be exact to the timeframe the survey data were collected, they are close approximations.

Located on the eastern part of the African continent, Kenya, Tanzania, and

Uganda share geographical borders (see Figure 1.1 in Appendix A). Gaining

independence from Great Britain in the early 1960s, these three countries have been

described by World Bank and other national and international sources (Table 1.1) as

multiethnic, predominantly rural, and poor (World Bank, 2016; KDHS, 2015; TDHS, 2011;

UDHS, 2012; Mugoya, Witte, & Ernst, 2015), with poverty rates highest among rural

residents (World Bank, 2018). Poverty is highly intertwined with gender, especially in

countries in sub-Saharan Africa where gender norms emphasize male dominance,

control, and superiority in the household (Institute of Economic Affairs Kenya, 2008;

World Bank, 2016). Consequently, despite representing almost half of the total labour

force, women are more likely than men to be living in poverty, independent of rural or

urban residence or whether the household is female-headed or male-headed (KHDS,

2015; Institute of Economic Affairs Kenya, 2008). Adult literacy ranges from 64% to 80%,

with the average education 12-13 years for all three countries (The World Bank, 2016).

Literacy rates and educational attainment also tend to vary by gender, as men typically

have, on average, slightly higher levels of education and rates of literacy compared to

women (KDHS, 2014; UDHS, 2010; World Bank, 2016).

There are substantial variations in the legislative approaches to gender-based

discrimination in Kenya, Tanzania, and Uganda. Gender-based discrimination is generally

prohibited in the constitutions of each country, but this does not always include

domestic violence. For instance, the Constitution of Tanzania bans gender-based

discrimination, but there is no reference to domestic violence, and there are no acts or

laws specifically addressing spousal violence. The Constitution of Kenya prohibits gender-based discrimination, and domestic violence (including sexual violence) is prohibited in *The Protection Against Domestic Violence Act, 2015.* However, neither legislation prohibits forced sexual intercourse by a spouse or spousal rape. In contrast to Tanzania and Kenya, the Constitution of Uganda has been lauded as one of the most gender-sensitive in all of Africa (National Research Council, 2015). Uganda's *The Domestic Violence Act, 2010* criminalizes domestic violence by a spouse, including physical, emotional, economic, and sexual abuse; however, spousal sexual rape is not explicitly criminalized, as the Act defines sexual abuse as "any conduct of a sexual nature that abuses, humiliates, degrades, or otherwise violates the dignity of another person" (the Republic of Uganda, 2010).

Despite legislation prohibiting gender discrimination and domestic violence, consistent enforcement is highly problematic. Cultural norms that accept domestic violence and emphasize a "culture of silence" on matters of the family, render these laws largely ineffective (Heise, 2011; National Research Council, 2015). Kimuna, Tenkorang, and Djamba (2018) point out, in their overview of gender-based violence in sub-Saharan Africa, that although laws have been enacted to protect women from abuse, local norms often supersede laws and legislation. For instance, resistance to changes in family law can be thwarted or stalled by religious leaders, chiefs, and those who are strongly committed to cultural norms and practices that allow them to benefit both economically and politically from the divisive nature of current laws (Tripp, 2015,

p. 3). Thus, while laws may be enacted to improve the status of women, "legal change often precedes actual changes in practices" (Badri, 2015, p. 232).

Women in Kenya, Tanzania, and Uganda live with cultural norms that emphasize male superiority over females (Jakobsen, 2014; Jayachandran, 2015; Kimuna, Tenkorang, & Djamba, 2018; Svenkeson, 2018). These norms cut across tribal and ethnic groups, holding men and women to prescribed modes of behaviour that carry punishment and stigma when violated (Barnett, Maticka-Tyndale, & Trocaire Kenya, 2016). A primary notion is that husbands and wives fulfill different, unequal roles. More specifically, husbands are typically the head of the household. Wives are expected to obey their husbands and to act and appear submissive; whereas husbands are expected to be decision-makers in complete and continual control of their wives and their households (Adjei, 2012; Bingeheimer, 2010; Cubbins et al., 2014; Jakobsen, 2014; Swart, 2017). Although gendered beliefs, norms, and practices within Eastern Africa are not inherently violent, in the current post-colonial context, their emphasis on male dominance and female submissiveness serve to legitimate and normalize violence as a method of maintaining status differences based on gender.

Studies across numerous countries in sub-Saharan Africa have shown that some degree of violence toward women is endorsed by both men and women, with women as likely or more likely than men to endorse tolerance of abusive behaviours (Adjei, 2015; Koenig et al., 2003; McCloskey, Boonzaier, Steinbrenner, & Hunter, 2016; Mugoya, Witte, & Ernst, 2015; Uthman, Lawoko, & Moradi, 2009). Any discussion of these findings and related behaviours in regions of sub-Saharan Africa require recognition of

the historical, political, social, and economic contexts and conditions that can lead to

violence and tolerance of violence (Mama, 1997 as cited in Iman, Mama, & Sow, 1997).

While dominant western discourses tend to portray gender as "transhistorical and

therefore essentialist" (Connell, 2015), postcolonial feminists and researchers from the

African diaspora stress that pre-colonial societies were not all structured by gender

(Connell, 2015; Oyewumi, 2011). Gendered structures and a dominant gender-system

became the "norm" in many sub-Saharan cultures through the imposition of western

religion, education, marriage systems, legal systems, political systems, and social

systems that stressed distinctions between public and private spheres (Hall, 2015) and

differentiated between men's and women's roles within each. These changes resulted in

a shift in women's traditional status and limited their access to new types of status (e.g.,

through employment or education) (Akin-Aina, 2011; Burrill, Roberts & Thornberry,

2010; Fallon, 2008; De Haas & Frankema, 2018). They stress that the emphasis on

gender categories and categorization represents a "colonial imposition" of gender

distinctions (Connell, 2015; Oyewumi, 2011), that have been internalized, reproduced,

and that persist to this day (Oyewumi, 2011). It is against this historical backdrop that

analysis of social conditions and experiences, including those of intimate partner

violence, must be examined and interpreted to ensure that research methodologies,

interpretations, and presentations of findings are "attuned to local contexts, gender

struggles and challenges" (Mama, 2011, p. e18).

     This research builds on prior research and understanding of IPV in sub-Saharan

Africa, focusing specifically on Kenya, Tanzania, and Uganda. These countries were

chosen for several reasons. With rates of lifetime IPV exceeding 50% among women in these countries (National Research Council, 2015), the population experiencing IPV can produce samples of a size that is large enough to identify variations in underlying patterns or types of IPV experiences and their correlates. Their geographic proximity, similarities in histories as former British colonies and in demographic profiles, and their publicly accessible, detailed data provided further rationale for selecting these three countries to examine diversity in IPV experiences among a sample of women in eastern sub-Saharan Africa.

Research Objectives

This research will add to our knowledge about IPV through three separate, albeit connected, analyses that correspond to three primary research objectives. These guiding research objectives are:

1) To describe the ways women in Kenya, Tanzania, and Uganda experience IPV by examining the frequency and nature of the violence experienced and its similarity within and across the countries.

2) To examine the multifaceted nature of IPV by using latent class analysis (LCA) to identify the presence of a latent class structure of IPV among women in Eastern sub-Saharan Africa. Specifically, to identify distinct types or classes of IPV within and/or across these countries.

3) To take an ecological approach to examine IPV by looking at the simultaneous effects of individual, relationship, community, and country-level factors on IPV,

and more specifically on class membership (as identified in objective two).

Particularly, to identify factors related to membership in each of the IPV classes.

Thesis Format

This thesis takes the format of three integrated articles to address these

objectives. *Chapter One: Introduction* includes an introduction and synopsis of the

associated research objectives guiding this thesis, as well as some background

information on each of the countries of interest. *Chapter Two: Review of the*

Theoretical Literature contains a broad review of the literature and relevant

methodological and theoretical contributions. More focused literature reviews and

methodological and theoretical discussions are in each of the integrated articles.

Chapter Three: IPV in Eastern Sub-Saharan Africa: A descriptive analysis represents the

first article of this thesis and takes a strictly descriptive approach to the analysis of IPV in

Eastern sub-Saharan Africa.[2] *Chapter Four: IPV in Eastern Sub-Saharan Africa: A Latent*

Class Approach presents a typology of violence in Kenya, Tanzania, and Uganda, by

employing LCA to assess the underlying patterns of IPV. *Chapter Five: Exploring the*

Diverse Connections between Multi-level Factors and Types of IPV takes a social-

ecological approach to simultaneously examine the relationship between individual-

level, relationship-level, community-level, and country-level factors on types of IPV.

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[2] While sub-Saharan Africa refers to the African countries south of the Sahara, for the purpose of this dissertation, when discussing sub-Saharan Africa, the referent is specifically Eastern sub-Sahara, and is limited to Kenya, Tanzania, and Uganda.

Chapter Six: Discussions and Conclusions will provide a general discussion of the findings

in these three analyses, as well as a discussion regarding the implications of these

findings, their applicability to the field of IPV research in a global context, limitations of

this thesis, and directions for future research.

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CHAPTER 2 : LITERATURE REVIEW

Despite having one of the highest rates of IPV globally, Olayanju and colleagues (2013) stress that Africa has fewer research studies on IPV compared with the rest of the world. There is a lack of research exploring the simultaneous influence of personal-level and social/political variables, or structural influences or explanations for violence (Heise, 1998; Crowell & Burgess, 1996). There is also a dearth of research exploring how theories or explanations for violence developed elsewhere can help to explain or account for the nature and prevalence of violence in Africa (Bowman, 2003; Goodmark, 2015; Olayanju, Naguib, Nguyen, Bali, & Bung, 2013).

The overarching objective of this dissertation is to explore, in-depth, the nature and diversity of IPV experiences among women in Kenya, Tanzania, and Uganda, and to examine the multi-level factors or influences related to IPV. While this research is exploratory, the rationale for the design, conceptual framework, analyses, and interpretation of results is grounded in and guided by some of the dominant theoretical and methodological trends and approaches to the study of intimate partner violence (IPV). In this chapter, the trends and influential approaches guiding this research are briefly summarised, and the ecological framework is used to integrate the various approaches and provide a framework for a review of the extant research literature on IPV. The research literature included here was chosen based on the recency of publication, and the use of robust research methodologies, with a preference for studies conducted in sub-Saharan Africa, studies utilizing large population-based samples, and those providing scoping reviews or syntheses.

Background Context: Kenya, Tanzania, and Uganda

Challenging the universalizing tendencies of the presentation of African societies as "violent, backward cultures" where women are in need of protection provided by the "non-cultural, and therefore non-violent" west (Hall, 2015, p. 406), post-colonial researchers, feminists, and African scholars from the diaspora have stressed that it is crucial to look to the colonial period in order to understand the meaning, quality, and historical continuation of domestic violence in Africa (Ampofo et al., 2004; Burrill, Roberts, & Thornberry, 2010; Connell, 2015; Geiger, Musisi, & Allman, 2002; Hall, 2015; Oyewumi, 2011; Steady, 2005; Swart, 2017; Wilson, 2015). Given that IPV is "grounded in an inter-play among personal, situational, and socio-cultural factors" (Lawson, 2012, p. 263), research that examines IPV in post-colonial countries like Kenya, Tanzania, and Uganda, must be designed and interpreted in a way that takes the historical context into account. That is, research must take into account how historical processes and experiences of colonization impact personal, situational, socio-cultural, and structural factors that can set the stage for IPV victimization and/or perpetration.

Although gender norms and differentials in gender predate colonialism in many African cultures (see Mbote & Mubuu, 2007 for a discussion of the Kenyan context), it was not uncommon for women across sub-Saharan Africa to own land and/or other assets, to engage in community activities, politics, and organizations, and to hold meaningful and even authoritative positions as female rulers, leaders, and queens (Aulette, 2009; Fallon, 2008; Geiger, Musisi, & Allman, 2002; Oyewumi, 2011). However, with the colonial era came western models of education, religion, family/marriage, law,

politics, economics, and social systems that stressed distinctions between public and private spheres, and emphasized and encouraged distinct gendered roles within each (Berger, 2014; Burrill, Roberts, & Thornberry, 2010; Fallon, 2008; Hall, 2015; Musandu, 2012). British influence stressed that women were not capable leaders (Aulette, 2009) and that women's role was in the domestic (private) sphere, while men's role was in communities, politics, formal education, and the market economy (Fallon, 2008; Thomson, Bah, Rubanzan, & Mutesa, 2015). Power and status were bestowed on African men by the British, and women were excluded from political realms and formal positions of leadership (Aulette, 2009; De Haas & Frankema, 2018; Wester, 2009). Through the processes of colonization, pre-existing norms that privileged men and the norms and systems imposed via British colonial rule reinforced and transformed each other (De Haas & Frankema, 2018, Schmidt, 1991), resulting in a "reconfiguration of gender inequality" and men's political re-positioning above women (De Haas Frankema, 2018), and contributing to a patriarchal model of gender relationships. Women were severely restricted, marginalized, and excluded from formal systems of education, politics, economics, and social life (Aulette, 2009; Akin-Aina, 2011; Burrill, Roberts, & Thornberry, 2010; De Haas & Frankema, 2018; Fallon, 2008; Musandu, 2012). Men often left rural areas to seek employment, whereas women were left at home to care for the household and children. This role barred them from education and employment, resulting in the "subsequent feminization of poverty within the household" (Thomson, Bah, Rubanzan, & Mutesa, 2015), and overall institutionalized gender inequality (De

Haas & Frankema, 2018). Oyewumi describes colonization and its aftermath as the core

of male domination:

> Africa's colonization by Europeans in a sense was a gift to white people, and a
>
> boon for both white and African men, albeit in varying degrees. For the
>
> colonizers and their inheritors, it is a gift that keeps on giving. However, for
>
> African men, it is a toxic gift. And alas, those who would transform Africa are also
>
> the class and gender beneficiaries of the colonial state. This is at the core of why
>
> male dominance continues to gain footholds and to expand in our current
>
> dispensation. (2011, p. 29-30)

This analysis, as well as any analysis using data collected in post-colonial countries, must

be interpreted with a recognition of the historical and modern implications of

colonialism. Recognizing the historical, political, social, and economic conditions that

encourage violence, leads to tolerance of violence among women and men, and

encourages men to perpetrate VAW (Mama, 1997, as cited in Iman, Mama, & Sow,

1997), can help to ensure that research is grounded in local contexts and is attentive to

women's multiple sites of oppression (Parashar, 2016).

The Nature of Intimate Partner Violence (IPV)

The theoretical, methodological, and practical developments and knowledge

made by researchers studying IPV from a wide variety of perspectives and contexts (e.g.,

feminist frameworks, family violence frameworks, integrative frameworks, post-colonial

frameworks, etc.) are instrumental to the understanding of IPV. Research emerging

from these perspectives has led to a robust body of knowledge on the characteristics,

epidemiology, prevalence, and seriousness of IPV (Burczycka, 2016; Davies et al., 2015; Nurius & Macy, 2008; Sinha, 2013; Tjaden & Thoennes, 2000a, 2000b). Given global diversities in cultures, histories, and social systems it is not surprising that research into the characteristics of and factors related to IPV has produced diverse and seemingly discrepant results (Fulu & Heise, 2015). For example, in the North American literature, a substantial body of research has documented patterns of IPV characterized by relatively minor instances of physical and/or emotional violence perpetrated by both males and females, and explained as a "normal" response to stress, conflict, or frustration (Dutton, 1995; Lysova, Dim, & Dutton, 2019; Straus & Smith, 1990; Straus, 1990; Straus & Gelles, 1986). In seeming contrast, an equally abundant body of research has identified and reported on IPV experiences characterized by a pattern of pervasive physical, emotional, and sexual violence perpetrated predominantly by men, described as rooted in patriarchy, and fueled by objectives of control over female partners (Dobash & Dobash, 1979; Kurz, 1989; Yllo, 1993). The former, less severe pattern of IPV is typically reported in research that utilizes population-based surveys that measure discrete forms of physical and/or sexual contact, resulting in conclusions that support a gender symmetry perspective where both men and women are perpetrators of IPV. The latter, more severe pattern of IPV is most often uncovered in research using samples of victims (predominantly females) who have attended shelters, police stations, or other services, resulting in patterns of IPV that support a gender asymmetry perspective where IPV is perpetrated almost exclusively by men (Fulu & Heise, 2015; Johnson, 1995; Lawson, 2012). However, as initially pointed out by Johnson (1995), using different

methodological approaches and studying IPV among distinct samples can account for the primary differences in findings on the nature of IPV (e.g., gender symmetry/ asymmetry, the severity of and motivations for violence) (see Johnson, 1995; Johnson & Kelly, 2007).

In response to these apparent differences, integrative approaches like Johnson's (1995) typology of IPV (see also: Ansara & Hindin, 2010; Cavanaugh et al., 2012; Kelly & Johnson, 2008) have been used to situate findings from multiple perspectives into a broader context of IPV. They have contributed to identifying diverse patterns of IPV experiences (Ansara & Hindin, 2010; Cavanaugh et al., 2012; Johnson, 1995; Kelly & Johnson, 2008; Nurius & Macy, 2008; Gulliver & Fanslow, 2015), and have concluded that IPV cannot be viewed as a monolithic, homogenous construct, but should be viewed instead as multifaceted, heterogeneous, and complex (Hardesty et al., 2015). In this vein, the World Health Organization has broadly defined IPV as any "behaviour by an intimate partner or ex-partner that causes physical, sexual or psychological harm, including physical aggression, sexual coercion, physical abuse and controlling behaviours" as well as restricting access to financial resources (WHO, 2012; 2017) and applied this definition globally.

Women in abusive relationships share the experience of being abused; however, the way abuse manifests and is experienced varies. For instance, as was indicated by Johnson (1995; 2006) and others who have found distinctions in IPV experiences and outcomes (see for example: Ansara, 2009; Ansara & Hindin, 2010; Cavanaugh et al., 2012; Johnson & Leone, 2005; Nurius & Macy, 2008; Gulliver & Fanslow, 2015), some

types of abuse may be more likely to involve severe forms of violence (e.g., physical

and/or sexual), coupled with control, and resulting in significant fear and/or injury.

Other types of abuse may be less likely to involve physical violence and may be

characterized by verbal or emotional abuse and control, resulting in poor mental health

and financial dependence. These patterns of IPV experiences exemplify the likelihood of

different needs among victims of IPV. In the former example, women may be most in

need of physical safety and/or medical attention; whereas, in the latter, they may be

most in need of access to financial independence. If we can identify and distinguish not

only the common patterns or types of IPV but also their associated risk factors and

consequences, response, and intervention policies can be designed accordingly.

Therefore, while it is essential to understand what experience(s) of IPV look like (e.g.,

severe forms of physical abuse or typically emotional abuse only, etc.), equally

important is to understand the factors or influences related to these experiences.

A Social-Ecological Model of Intimate Partner Violence: An Organizing Framework

The social-ecological model conceptualized by Uri Bronfenbrenner (1977;1994)

brings together multiple levels of influence (individual, relational, community, societal,

and historical) to understand the interplay of factors and characteristics associated with

violence, including types or classes of IPV (Heise, 1998; Lawson, 2012; WHO, 2013).

Conceptualizing violence "as a multifaceted phenomenon grounded in an inter-play

among personal, situational, and socio-cultural factors" (Lawson, 2012, p. 263), the

ecological model facilitates the synthesis of the existing bodies of knowledge across

disciplines and perspectives. Moreover, this framework helps to place diverse types or

classes of IPV into local and historical contexts, and broadens explanations of IPV to include factors that go beyond patriarchy and gender to take into account other status-linked attributions and structural factors or characteristics that can impact pathways to IPV victimization or perpetration (Heise, 1998; 2011; Lawson, 2012).
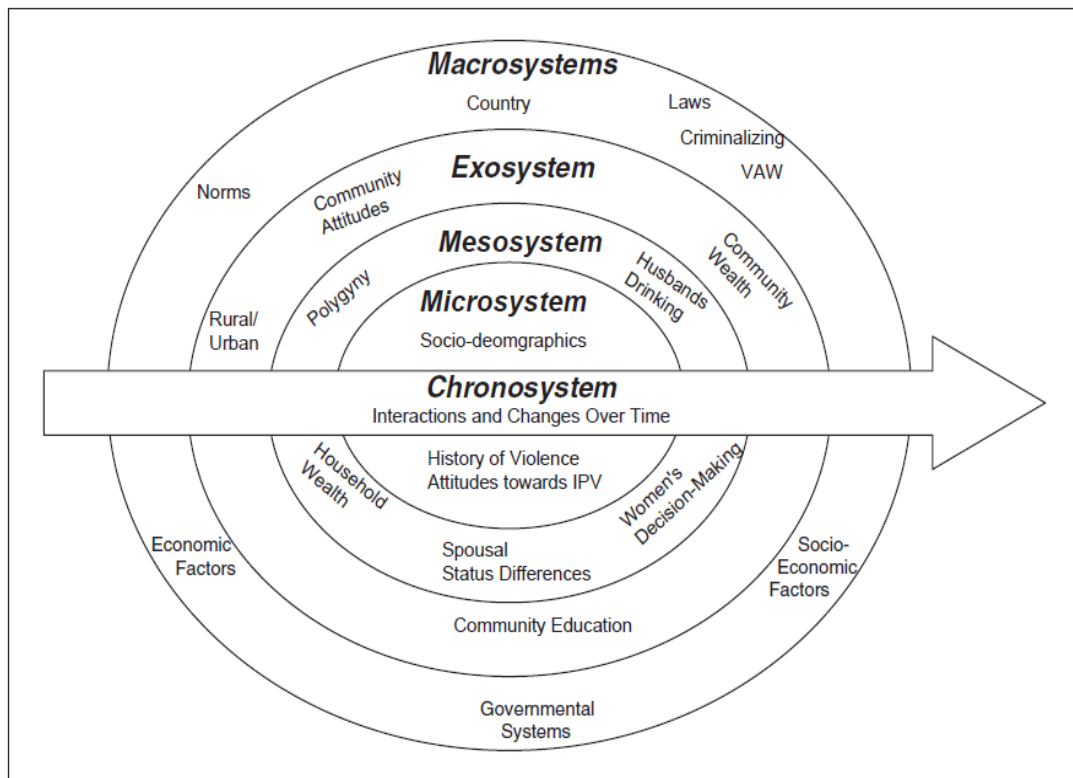
Figure 2.1: The Social-Ecological Model Applied to the Study of IPV

Footnote: Figure 2.1 The social-ecological model of IPV based on Bronfenbrenner's original ecological model and adapted by other researchers studying violence (Antai, Adaji, 2012; Heise, 1998; Hoffman & Kruczek, 2011; Lawson, 2012).

Bronfenbrenner's (1977) social-ecological model views the interrelationship between person and context as essential to understanding human development, socialization, and behaviour. The context or environment is viewed as a multi-layered,

nested set of structures consisting of the macro-, exo-, meso-, micro-, and chrono-levels

(Bronfenbrenner, 1994). Utilizing this model or framework for organizing IPV

experiences, violence results from an interplay within and between the factors in each

of the different levels (See Figure 2.1).

While findings on IPV reported in the literature in North America may be specific

to the North American context (WHO, 2012), in her comprehensive review of the global

IPV literature, McCloskey (2016), as well as authors of comprehensive reports written

for the World Health Organization (2012; 2013) conclude that many risk factors for IPV

are consistent across countries. Considering the sub-Saharan African context, these

findings showing similarities and consistency in factors related to IPV victimization may

reflect the pervasive imprint and legacy of colonialization on social and cultural systems

(Alesina, Brioschi, & Ferrara, 2016; De Haas & Frankema, 2018; Guarnieri & Rainer,

2018; Mbote and Mubuu, 2007). Based on these conclusions, in the absence of country-

specific findings, research conducted elsewhere may still be informative, especially for

model building purposes. The following presentation of the literature, although

containing research conducted in the West focuses, when available, on research

conducted using data collected in sub-Saharan Africa. The research findings are

synthesized and organized under the key headings of Bronfenbrenner's original social-

ecological model (1979; 1994). The ecological model deals in contexts and is used here

as a guiding framework for the placement of variables into the different levels in this

model. There is considerable room for interpretation as to where a variable or factor

most appropriately fits into the framework (Heise, 1998); nevertheless, what is essential

for how these factors influence vulnerability to IPV victimization and/or perpetration is not the exact location of any single factor, but rather the "dynamic interplay between factors operating at multiple levels" (Heise, 1998, p. 266).

Chronosystem: Interactions and Changes Over Time

The chronosystem accounts for change (or consistency) over time in personal, environmental, or contextual characteristics (Bronfenbrenner, 1994). For example, these changes include those that occur over time in individual and/or community level cultural beliefs, attitudes, or tolerance towards IPV; changes in laws, legislation, or enforcement of laws criminalizing IPV; and changes in other socio-cultural contexts following changes in the environment (Bronfenbrenner & Ceci, 1994). Political events, movements, and/or other structural-level changes (e.g., colonization, independence from colonial rule, mass conflict, changes in ruling political parties, changes in access to education, the emergence of a market economy) can, through their interaction and influence on multi-level factors in the social-ecological environment impact IPV experiences.

Environmental changes in the social and political contexts in which women and men live can impact experiences of IPV via pathways through different aspects of social organization related to violence and gender (Fulu & Miedema, 2015; Oyewumi, 2011). Pathways include direct influences on the individual, and indirect influences via the family and community, which further influence the individual (Hoffman & Kruczek, 2011). For instance, through individual and community acceptance and resistance of changes (e.g., new gender norms, women's exclusion from formal education,

employment, political engagement, changes in legislation, etc.), what constitutes

masculinity and femininity and what are considered acceptable ways of enacting gender

roles are developed, supported, and/or changed (Fulu & Miedema, 2015). Illustrative of

this, and particularly notable in the context of a study on IPV experiences is resistance

by women and women's activism over time, and how these processes have been shaped

by and shape current multi-level factors including socio-cultural contexts via policies on

VAW, and attitudes towards IPV (Fallon, 2008; Fulu & Miedema, 2015; Htun & Weldon,

2011; 2012; Mwatha, 2015; Weldon & Htun, 2013).

Women's movements in Africa have been influenced by a variety of different

contexts and moments in history, and reflect change over time, extending from the pre-

colonial era through the present time. While the movements themselves may be

characterized as macro-level factors, their actions and influence extend across all

ecological models, making women's movements a useful example to describe their

impact on multi-level changes over time. Akin-Aina describes women's organizations

across Africa as involved in an "ongoing process of self-definition and re-definition"

(2011, p. 66) as they have shaped the position and status of women over time (Akin-

Aina, 2011; Chadya, 2003; Mwatha, 2015). In doing so, they have both impacted and

been impacted by factors and characteristics at different levels of the social-ecological

environment. For instance, some literature portrays African women as passive,

underprivileged victims under the complete control and domination of patriarchy

(Swart, 2017; Tripp & Badri, 2015, p. 22). However, despite women's long-standing

historical disadvantage in African societies, they have consistently enacted and

expressed agency (individually, collectively, and transnationally) in ways that have made

substantial changes to their social contexts (Akin-Aina, 2011; Fallon, 2008; Fulu &

Miedema, 2015; Htun & Weldon, 2012; Mwatha, 2015; Wilson, 2015). Women's efforts

of resistance, mobilization, activism, and organization have incorporated women's pre-

colonial strategies of engagement, agency, and movement development (Mwatha,

2015; Tripp & Badri, 2015) to make appreciable changes and to impact the social

conditions that predispose and protect women from violence.

Women's movements throughout Africa have taken several forms, changing with

the current conditions, and adapting to resistance (Domingo, McCullough, Simbiri, &

Wanjala, 2016; Mwatha, 2015). While by no means exhaustive, some examples of

women's agency, activism, and mobilization in response to social and political changes

such as colonization and independence include unique ways of working within the

confines of patriarchy and direct challenges to patriarchy and the social order. For

example, Mwatha found that during the colonial era, women found ways around

restrictions on women's land ownership by registering land to women's organizations so

women could own property "in a context of patriarchal norms where capital and assets

are synonymous with masculinity" (2015, p. 195). Informal women's organizations

engaged in social welfare and healing (Akin-Aina, 1997), formed an informal economy to

transform women's social relationships (Swart, 2017), and protested the illegal

collection of taxes by dancing and singing insulting songs to threaten the warrant chief's

manhood, demand his resignation, and ensure taxation would not occur (Fallon, 2008,

p. 17). Their individual and collective actions spread across locations, resulting in

women's groups and organizations following similar trends, in an attempt to address

some of the negative impacts of colonialism, and extending to the current post-

independence era. Women's movements and organizing was also influential in forcing

peace agreements (Berger, 2014), forming and advancing the backbone of

independence movements (Tripp, 2015), spearheading movements that helped women

generate income, education, and employment (Mwatha, 2015), making connections

with Non-Governmental Organizations (NGO's) to advocate for legal reforms (Tripp,

2015), and subsequently impacting the development and passage of laws, including laws

on marriage, sexual offences, laws against female genital mutilation, and were impactful

in shaping constitutions in ways that advanced gender equality and women's rights

(Domingo, McCullough, Simbiri & Wanjala, 2016; Hall, 2015; Kamau, n.d; Tripp, 2015;

Mwatha, 2015). In an analysis of factors accounting for governmental action against

VAW, Htun and Weldon (2012) found that the presence of women's autonomous

(feminist) movements determined governmental action and policy change in 70

countries, over four decades, (1975 – 2005). Their research demonstrated that while

changes to laws are essential, women's movements are an influential and essential

force for these changes to have more than a symbolic macro-level impact.

> Social movements have political consequences, including policy change[…]
>
> Autonomous movements articulate the social perspectives of marginalized
>
> groups, transform social practice, and change public opinion. They drive
>
> sweeping policy change as voters, civic leaders, and activists pressure

policymakers to respond to their demands and as policymakers themselves

become sympathetic to the movement's goals. (Htun & Weldon, 2012, p. 564)

The chronosystem helps explain and account for differences in IPV victimization

experiences that may have emerged at different times and in response to different

political events, economic changes, legislative changes, and as illustrated above, via

women's movements. That is, chronosystem changes are overarching and include all

levels of the ecological framework: macrosystem, exosystem, mesosystem, and

microsystem (Hoffman & Kruczek, 2011), meaning that individual experiences of IPV can

only be fully understood within the context of these broader processes.

Macrosystem: Societal-Level Factors

The macrosystem represents the outermost layer of an individual's current

environment. It includes the broad cultural values, customs, beliefs, and opportunity

structures that inform and influence an individual both directly and indirectly through

other levels or layers of the ecological system (Brofenbrenner, 1994; Heise, 1998).

Scholars have reflected on how these macro-level factors have changed over time, with

changes in sub-Saharan African particularly affected by colonization (Aulette, 2009; De

Haas & Frankema, 2018; Fallon, 2008; Oyewumi, 2011; Schmidt, 1991; Wilson, 2015).

While acknowledging such changes, this, as is the case in most research, is set in the

current, post-colonial moment in time. At the macro- or societal-level, salient factors

when studying IPV in sub-Saharan Africa include: poverty and gender inequality; societal

norms and beliefs about the normalcy of violence, masculinity and femininity, and male

ownership of women; conflict and societal violence; legislation and legal sanctions

against IPV, whether there are laws in support of women's rights (e.g., laws related to equitable divorce and marriage), and whether these laws are enforced (Heise, 1998; Jewkes et al., 2002; WHO, 2012).

When family, politics, economics, and social institutions are dominated by patriarchal beliefs and ideals, they reproduce and authenticate men's superiority over women and lead to the assumption that men's power is natural, with violence characterizing a practical and reasonable tool to subordinate, correct, or punish women (Adjei, 2015; Allen & Devitt, 2012; Yodanis , 2004). Macro-level factors can influence IPV by shaping individual opportunities and constraints provided by society, as the historical perpetuation and continued reinforcement of patriarchal gender beliefs allow for the normalization and continuation of violence against women (Allen & Devitt, 2012; Cools & Kotsadam, 2017).

Gender (in)equality: the status of women.

Poverty is a significant risk for IPV. As Jewkes and colleagues point out, poverty increases "vulnerability through increasing relationship conflict, reducing women's potential for economic and educational power, and reducing the ability of men to live in a manner that they regard as successful…[the consequence is that] violence is used frequently to resolve a crisis of male identity" (2002, p. 253). In a cross-national study of 27 North American and European countries, Yodanis (2004) examined the relationship between societal-level measures of gender inequality and violence against women (VAW). Gender (in)equality was measured using the United Nations (UN) country-level measures of the educational, occupational, and political status of women. Findings

suggest that the status of women in a country is significantly related to the prevalence

of violence (including sexual violence) against women. More specifically, the lower the

educational and occupational status of women in a country, the higher the rates of

country-wide sexual violence (Yodanis , 2004). Women do not need to have

experienced sexual violence firsthand to be fearful. Hearing or knowing about acts of

sexual violence against other women can contribute to a culture of violence which

secures men's status as superior (Yodanis , 2004). Studies in the United States found a

negative relationship between structural gender inequality and VAW, with women's

higher status related to lower rates of state-wide wife abuse (Straus, 1994). This

relationship, however, is not always linear, as research has also reported curvilinear

relationships, with VAW highest in states where gender inequality was both the highest

and lowest (Yllo, 1983). In research on IPV in Kisumu Kenya, Uwayo (2013) conducted

face-to-face survey interviews, key informant interviews, and focus group discussions,

and concluded that the predominant macro-level factors related to IPV were gender

inequality as evidenced through poverty, unemployment, and gender beliefs about

women's and men's roles in society. Global analyses consistently emphasize poverty

and country-wide subordination via rates of gender inequality as the predominant

macro-level factors that significantly contribute to the continuation of violence against

women (Fulu & Heise, 2015; WHO, 2012). In sum, higher levels of country-wide

poverty, unemployment, and gender beliefs emphasizing men's dominance over women

are related to IPV victimization, while IPV victimization is further related to continued

poverty (see individual-level factors). These findings are echoed in a multi-country

review by McCloskey and colleagues:

> It is important to recognize that IPV and sexual assault derive from pervasive
>
> gender inequality in much of sub-Saharan Africa restricting girls and women in
>
> education, access to healthcare, decision-making in marriage and divorce,
>
> fertility, and equal employment. (2016, p. 304)

Social and legal attitudes and norms towards IPV.

Legislation and enforcement of legislation reflect and reinforce wide-spread

societal norms, beliefs, and attitudes regarding gender roles, including the acceptance

or tolerance of IPV. Laws criminalizing violence against women and spousal violence are

not consistent across sub-Saharan Africa, with variations ranging from a complete lack

of legislation addressing violence against women and discrimination based on gender to

specific legislation criminalizing IPV and providing guidelines for recourse (Bowman,

2013; Goodmark, 2015). While, on paper, legislation that prohibits IPV may appear to be

a step forward in addressing VAW, Goodmark (2015) points out that the impact of these

laws on women in sub-Saharan Africa is largely unknown and highly understudied.

Nevertheless, perceptions that societal and government sponsored policies prohibit (or

do not prohibit) abuse in marriage can influence individual-, relationship-, and

community-level beliefs about the acceptability of violence in intimate relationships

(Linos et al., 2013). For instance, in a survey about Nigerian women's beliefs regarding

domestic violence (n=18,000), Linos and colleagues (2013) found that women from

communities in which the local government was unlikely to uphold laws protecting

women from violence (including rape) were more likely to be victimized and to endorse tolerance of violence towards women in intimate relationships. In areas where local governments banned and sanctioned violence towards women, attitudes were less tolerant, and victimization rates were lower (Linos et al., 2013). Based on research such as this, McCloskey et al. observe that "the state's explicit messages, therefore, shape community norms surrounding violence in marriage; laws and policies prohibiting IPV may directly reduce rates of perpetration in African communities" (2016, p. 287).

Although legislation can criminalize violence against women, the implementation of these laws often fails to take into account the structural causes of violence against women, including difficulties contacting or reaching the police to report abuse, financial challenges associated with reporting abuse, issues impeding police response or action, and issues associated with a lack of rehabilitative options in lieu of punishment oriented approaches for dealing with abuse (Goodmark, 2015; Manjoo, 2016). Thus, it is not only the laws themselves that have the potential to indirectly influence IPV through broad conceptions of gender and the role of women in society, but equally, if not more important, is the infrastructure around the enforcement of laws or legislation. Legal limitations, together with legislation that reflects patriarchal ideologies (e.g., property ownership, inheritance) will continue to contribute to the perpetuation of IPV (Olayanju et al., 2013; Bowman, 2003). That is, violence against women emerges out of social relations (Klein, 1984), and it is unlikely that legislation without social change that targets these relations will have any appreciable effect.

The relevance of Htun and Weldon's findings, and the presence and actions of women's organizations, both discussed earlier, are salient here. "Feminist movements are the primary drivers of change because they articulate social group perspectives, disseminate new ideas and frames to the broader public, and demand institutional changes that recognize these meanings" (Htun & Weldon, 2012, p. 552). This connects with Pierotti's (2013) findings on global trends in women's attitudes about IPV that suggest attitude change is the result of global cultural scripts and depends on activists to translate and adapt these scripts to the local context (Pierotti, 2013). To examine both global and country-wide changes in attitudes towards IPV, Pierotti (2013) utilized two waves of DHS survey data (early 2000's for period 1, and mid-late 2000's for period 2) in 26 countries globally. Results show that 23 of 26 countries across global regions exhibited increasing trends rejecting tolerance of IPV. Structural, socioeconomic, and demographic changes including urbanization, education, access to media, fail to explain the almost universal trend of decreasing tolerance for IPV perpetration. The conclusion was that the diffusion and transmission of global cultural scripts condemning VAW resulted in changes in attitudes at the individual level (Pierotti, 2013).

These findings further emphasize how changes in the environment over time (chronosystem) can impact a multitude of factors that interact and influence each other to result in multi-level changes. As this discussion illustrates using women's movements as an example, changes in macro-level factors (dominant global scripts related to VAW), in turn can impact national policies and local government or community initiatives (e.g.,

policies, media coverage, NGO campaigns, school interventions) that can influence

individual attitudes, and thus vulnerability for IPV.

Exosystem: Community-Level Factors

The exosystem refers to the "linkages and processes taking place between two

or more settings, at least one of which does not contain the developing person, but in

which events occur that indirectly influence processes within the immediate setting in

which the developing person lives" (Bronfenbrenner, 1994, p. 40). Personal and family

relationships operate within the exosystem, or community, to interact and create

vulnerability or protection from IPV. Community-level factors include physical

characteristics such as region of residence, or whether the community is in a rural or

urban setting, as well as factors related to IPV victimization such as community attitudes

or tolerance towards IPV, community rates of poverty and community-wide educational

and employment opportunities (Antai & Adaji, 2012; Heise, 1998; Jewkes et al., 2002;

Martin et al., 1999; Ellsberg et al., 1999; Hoffman et al., 1994; Straus, 1990; WHO,

2012).

While some of the global literature indicates that IPV tends to be more common

in rural compared to urban neighbourhoods or communities (Antai & Antai, 2008; Antai

& Adaji, 2012; Ellsberg, Jansen, Heise, Watts, & Garcia-Moreno, 2008; McCloskey et al.,

2016), this is not a consistent finding. Researchers have also reported finding no

significant relationship between IPV and urban/rural residence (Bazargan-Hejazi,

Mederiors, Mohammadi, Lin, & Dalal, 2013), and a positive relationship between urban

residence and abuse (Alesina, Brioschi, & Ferrara, 2016; Evans, 2017; Owusu, Adjah, &

Agbemafle, 2016; Tandrayen-Ragoobur, 2018). Variations in these reported

relationships are likely due to an interplay of other multi-level factors. For instance,

explanations for a heightened vulnerability for IPV in rural areas includes geographical

isolation and the resultant lack of direct access to social, medical, legal, or other

community services, typically lower levels of education and higher levels of illiteracy,

and/or slower transmission of or recognition of changes to legislation and/or social

norms regarding IPV victimization and perpetration (Abuya et al., 2012; Antai & Antai,

2008; Allen & Devitt, 2012; McCloskey et al., 2016).

     Geographical (i.e., rural-urban) variation in attitudes towards violence against

women have been identified, with evidence suggesting both a possible neighbourhood

and country contextual phenomenon (exosystem and macrosystem) that shapes

individual and/or community-level attitudes towards IPV (Ellsberg et al., 2008; Fulu &

Heise, 2001; Uthman et al., 2009). The relationship between geographical residence and

attitudes towards IPV is important, as we know that individual attitudes towards IPV are

significantly related to both IPV victimization and perpetration (Antai & Adaji, 2012;

Cools & Kotsadam, 2017; Mugoya, Witte, & Ernst, 2015; Kimuna, Tenkorang, & Djamba,

2018; Linos et al., 2013; Owoaje & OlaOlorun, 2012; Tenkorang et al., 2013). As a

collective group, rural communities tend to hold more tolerant attitudes towards IPV,

with beliefs about violence towards women strongly tied to patriarchal norms and

cultural customs (Ellsberg et al., 2008; Uthman et al., 2009). Several population-based

studies have also noted that women residing in urban communities were more likely

than women in rural communities to reject IPV, and to support gender equality (Evans,

2017; Pierotti, 2013), even when urban residing women were more likely to experience

IPV (Alesina, Brioschi, & Ferrara, 2016). This unequal "geography of violence" as Fulu

and Heise (2015) have reported, suggests that a multitude of community-level factors

combine (e.g., poverty, the ethnic or religious composition of a community, etc.) to

influence IPV both directly and indirectly.

Intertwined with urban/rural residence are the levels of education, employment,

and socioeconomic status in the community (Antai & Adaji, 2012; Cunradi, Todd, Duke,

& Ames, 2009; Heise, 1998; Krishnan et al., 2010; Heise & Garcia-Moreno, 2002). It

should be noted that within the exosystem these are not an individual's education,

employment, or SES, but rather the overall level of education, employment, and SES of

the communities (women in the community), or neighbourhoods that are the focus. It is

possible that the higher status of women in a community, via higher levels of education

or prestigious positions, can impact both individual- and community-level attitudes

about women (Evans, 2017; Isaksson, Kotsadam, & Nerman, 2013). Seeing women in

respected positions and performing typically masculine roles in urban centres can

influence and "erode gender ideologies" (Evans, 2017), and in turn may account for a

lower tolerance of IPV, despite sometimes higher levels of IPV in urban areas (Alesina,

Brioschi, & Ferrara, 2016). Lower rates of community tolerance towards IPV, yet higher

rates of IPV in urban areas have been explained as a result of faster transmission of

norms in urban compared to rural areas (Alesina, Brioschi, & Ferrara, 2016), poverty in

urban slums (Swart, 2017), and potential differentials in reporting, with women in urban

areas more likely to reveal IPV experiences (Alesina, Brioschi & Gerrara, 2016), or seek

help (Bamiwuye, Owoeye, & Oyiboka, 2015). All of these factors and their interactions are likely to influence women's victimization and men's likelihood of perpetration.

Mesosystem: Relationship-Level Factors

The mesosystem refers explicitly to the context in which abuse takes place, including the interactions and dyadic relationships a person has and the meanings assigned to them (Hatcher et al., 2013; Heise, 1998). The family, or close relationships, represent the primary context for IPV at the mesosystem level. Factors of the mesosystem identified as positively related to IPV victimization and perpetration include polygyny or multiple wives (Djamba & Kimuna, 2008; Lawoko, Jiayou, & Jansson, 2007; McCloskey et al., 2005; WHO, Tandrayen-Ragoobur, 2018), alcohol consumption and conflict over drinking (Fulu & Heise, 2015; Gillum et al., 2018; Heise, 1998; Jewkes et al., 2002), male dominance and male responsibility for decision-making in the family (Antai & Antai, 2008; ; Heise, 1998; Jewkes et al., 2002; Hindin, Kishor & Ansara, 2008; Koeing et al., 2003; Levinson, 1989; WHO, 2012), male control of wealth in the family (Levinson, 1989; WHO, 2012), status differences (including occupation and education) between partners (Antai & Adaji, 2012; Garcia-Moreno et al., 2005; Lawoko, Jiayou, & Jansson, 2007; WHO, 2012), economic stress, and relationships where one partner is responsible for supporting the entire household (Jewkes et al., 2002; WHO, 2012).

Polygyny / multiple wives.

Research in sub-Saharan Africa has shown a positive association between polygyny (the practice of having more than one wife) and IPV victimization and perpetration (Conroy, 2014; Djamba & Kimuna, 2008; Lawoko, Dalal, Jiayou, & Jansson,

2007; McCloskey, Williams, & Larson, 2005; McDermott & Cowden, 2014; Tandrayen-

Ragoobur, 2018; Thomson, Bah, Rubanzan ,& Mutesa, 2015). In addition to polygyny,

arranged marriages and payment of bridewealth or brideprice to obtain a wife are said

to set women up for "debt and servitude" (Ellsberg et al., 2001). McCloskey and her

colleagues point out that these practices set "the stage for the commodification of

women and the acceptance of violence in support of a husband's effort to control"

women broadly and within relationships (2016, p. 279). The exact pathways from

polygyny to IPV are not clear. While polygyny may be a response to existing poverty,

inequality, or marital dissatisfaction, including negative dynamics between partners, and

can be characterized as a relationship already at risk for IPV, we know that polygyny is

often characteristic of broader norms and conceptions of women's role and status

within a family that may predispose women to IPV. Research has shown, however, that

it is not necessarily polygynous unions per se that predispose women to IPV

victimization, but possibly the status of the wife within the polygynous union (Jansen &

Agadjanian, 2016). As new wives arrive, husbands often reassert their power with

violence (McCloskey et al., 2005), resulting in senior wives more likely to experience IPV

than newer junior co-wives, and junior co-wives just as likely to experience IPV as

women in monogamous marriages (Jansen & Agadjanian, 2016). Whether prompted by

pre-existing poverty, inequality, relationship conflict, or stemming from and continuing

to perpetuate norms regarding women's and men's status in a relationship, the

relationship dynamic created by and characteristic of polygynous unions works with

individual and other relationship, community, and macro-level factors to create and influence pathways to IPV.

Alcohol consumption.

Men's alcohol consumption has been identified as a risk factor for IPV perpetration (Gillum et al., 2018; Heise, 2011; Jewkes et al., 2002; Koeing et al., 2003; McCloskey et al., 2016; Pandey, Dutt, & Banerjee, 2009; Tandrayen-Ragoobur, 2018; WHO, 2012). Population studies in Uganda, Kenya, and other parts of Africa have found that a husband's drinking was significantly associated with wife abuse (Djamba & Kimuna, 2008; Koenig et al., 2003; Owoaje & OlaOlorun, 2012; WHO, 2012; Zablotska et al., 2009), excessive injuries (Heise, 2011; McCloskey, et al., 2016), reduced likelihood of help-seeking by the woman (Ghose, 2019). The association between men's alcohol consumption and IPV perpetration is not restricted to any type of violence or location, as this risk factor is consistently cited in the international literature as positively related to IPV experiences (Koenig et al., 2003; Kimuna, Tenkorang & Djamba, 2018; WHO, 2012). For instance, Djamba and Kimuna (2008) and Kimuna, Tenkorang, and Djamba (2018) found that in Kenya, a husband's drinking was positively related to a woman's experiences of physical IPV, severe physical IPV, and sexual IPV. Similar findings were reported by researchers analyzing a survey of women in Uganda (n=5109), where women who had partners who frequently or always consumed alcohol before sex had a five times higher risk for domestic violence than those whose partners never drank, or only drank sometimes (Koenig et al., 2003). Explanations for the link between alcohol consumption and IPV perpetration and victimization stress connections with beliefs

about masculinity (Jewkes et al., 2002), the impact of alcohol on levels of aggression, self-control, and conflict resolution, which can all lead to and exacerbate relationship-level conflicts and stressors, resulting in a heightened risk for IPV (Heise, 2011; Gillum et al., 2018; Ghose, 2019).

Spousal status differences: age, education, and employment disparities.

Research exploring the relationship between IPV victimization and age, education, and employment differences between spouses has produced mixed results. For spousal age differences, these include no relationship between spousal age differences and risk of domestic violence (Antai & Adaji, 2012; Koeing et al., 2003) and a relationship resembling an inverted U-shaped distribution (Djamba & Kimuna, 2008). However, the latter study did not find a significant relationship between spousal age differences and sexual abuse or life-threatening violence, suggesting that the effect of spousal age differences may vary by type of abuse (Djamba & Kimuna, 2008).

Researchers have found that IPV is more likely to occur when power or status differentials in marriage disturb gender roles and beliefs that men should be of a higher status than women, including when women have higher education or higher financial earnings than their husbands (Antai & Adaji, 2012; Bonnes, 2016; Lawoko, Jiayou, & Jansson, 2007). Using DHS data for Malawi, Bonnes' (2016) found that the effect of a woman's level of education on IPV victimization was dependent on her husband's level of education. Specifically, while some education acted as a protector against IPV, having three or more years of education than one's husband was a risk factor for IPV victimization (Bonnes, 2016). Similar findings in Kenya suggest that women who had

equal or higher levels of education than their husbands, and women who had a higher occupational status than their husbands were more likely to report IPV than women who had lower levels of education or occupation compared to their husbands (Lawoko, Dalal, Jiayou, & Jansson, 2007). These findings have been explained as a "backlash effect" against gender discrepancies (Cools & Kotsadam, 2017; Tandrayen-Ragoobur, 2018), whereby women who are employed, and/or women who earn more money (or have a higher education) than their partners face a heightened risk of physical and or sexual abuse at home (Antai & Adaji, 2012; Bonnes, 2016; Cools & Kotsadam, 2017; Heise, 2011; Hindin, Kishor, & Ansara, 2008; Lawoko et al., 2007; MacMillan & Gartner, 1999; Vyas, Mbwambo, & Heise, 2015), because men may use violence or coercion to maintain the dominance they feel is threatened by women's education and/or employment (Alesina, Brioschi, & Ferrara, 2016; Cools & Kotsadam, 2017; Vyas, Mbwambo, & Heise, 2015; Tandrayen-Ragoobur, 2018).

To further explore this backlash theory, Guarnieri and Rainer (2018) examined differences in French and British colonization in Africa by focusing specifically on Cameroon—an African country that, during colonization was arbitrarily divided between France and Britain. Findings suggest that as a result of the different British and French colonial practices (e.g., British emphasis on education and market economy participation compared to French emphasis on education and employment for elite men, and the different ways colonial practices shaped gender roles), women in former British colonies were more likely than those in French territories to be employed, but were also more likely to be victims of domestic violence (Guarnieri & Rainer, 2018).

Researchers concluded that this male backlash helps men to "reinstate a culture of male authority and control over women" and characterizes one of the predominant ways former British colonizing impacts current experiences of domestic violence (Guarnieri & Rainer, 2018, p. 3). Female employment challenges men's traditional "breadwinner status" (Cools & Kotsadam, 2017), and given that IPV is viewed as an acceptable response to gender norm transgressions in sub-Saharan African (Alio et al., 2010; Bonnes, 2016; Hindin, 2003; Jewkes et al., 2002; Uthman et al., 2009), the backlash explanation highlights how the dynamic of women's education and employment status within a relationship can result in an increased risk for IPV victimization.

Decision-making in the relationship/household.

Decision-making in relationships and households are tied to attitudes and norms about gender roles and IPV. In many cultures throughout sub-Saharan Africa, gender roles dictate that men retain control over multiple aspects of women's lives, including decisions about household spending, childcare, cooking, how they will spend their time, and with whom they may spend their time (Cubbins et al., 2014; Koenig et al., 2003). Research has shown that in countries with high levels of VAW, IPV is more likely to occur when men are the economic and family decision-makers than when women are involved in decision-making (Heise, 1998). The most violent husbands tend to make most of the decisions regarding family finances and tend to exert control over their wives' physical movements (Heise, 1998). Low levels of relationship autonomy and decision-making power among women are related to physical and sexual violence, as well as unprotected sex, and HIV infection (Conroy et al., 2016; Dunkle et al., 2004;

Jewkes et al., 2006). These findings suggest that the social conditions that influence who makes decisions and why are likely to influence IPV experiences. For instance, women's lack of decision making can be viewed as a measure of a highly patriarchal relationship characterized by men who are solely responsible for making decisions, exerting high levels of control over their female partners and in their day to day lives.

Decision-making is also tied to attitudes and perceptions regarding the acceptability of IPV (Koenig et al., 2003). For example, among rural women in Nigeria, those who had no autonomy in decisions about their own health, large household purchases, visits to family, and decisions regarding food were found to justify IPV in significantly higher proportions compared to women who had full or partial autonomy in decision-making (Antai & Antai, 2008). In their study exploring the relationship between household decision-making and physical violence, Hindin and Adair (2002) (also see Ahinkorah, Dickson, & Seidu, 2018; Flake, 2005; Gage, 2005) found that when decision-making was solely male-dominated, or solely female-dominated, women reported higher levels of physical violence compared to women who reported shared instances of decision-making. Shared decision-making seems to have an appreciable impact on reducing IPV. More specifically, women who reported having shared decision-making power were less prone to be victimized by their partners (Hindin & Adair, 2002; Hindin, Kishor & Ansara, 2008; Koenig et al., 2003). It is likely that shared decision-making provides women with some autonomy and control in their own lives and households, but not enough to disrupt gender roles, norms, and traditions, like sole female-dominated decision-making that tends to lead to higher levels of IPV in countries

throughout sub-Saharan Africa (Ahinkorah, Dickson, & Seidu, 2018). As is evidenced

throughout this discussion of the mesosystem, many of the factors overlap into

different levels of one's ecological environment, and/or interact with factors at different

levels of the environment to influence risk and protection for IPV, most often through

pathways relating to gender, family, and relationship norms about power, control, and

subordination.

Microsystem: Individual/Personal-Level Factors

Individual or personal-level risk factors for IPV victimization and IPV perpetration

(Jewkes et al., 2002; WHO, 2012) refer specifically to one's socialization experiences or

characteristics of personality that interact with, are influenced by, and influence

responses to relationships (mesosystem), community (exosystem), and societal

(macrosystem) stressors (Heise, 1998). Factors such as low levels of education (Jewkes

et al., 2002; Kimuna, Tenkorang, & Djambe, 2018; McCloskey et al., 2016; WHO, 2012),

previous victimization experiences, including childhood abuse (Dunkle et al., 2004;

Herrenkohl et al., 2008; Jewkes et al., 2002; McCloskey et al., 2016; Owoaje &

OlaOlorun, 2012), witnessing marital or family violence (Ellsberg et al., 1999; Heise,

1998;2011; Jewkes et al., 2002; Svenkeson, 2018; Tenkorang, Owusu, Yeboah, &

Bannerman, 2013; Thomson, Bah, Rubanzan, & Mutesa, 2015; WHO, 2012), and

individual acceptance of social norms of male dominance and the acceptance of physical

violence in close relationships (Antai & Adaji, 2012; Cools & Kotsadam, 2017; Gass et al.,

2011; McCloskey et al., 2016; Okenwa & Lawoko, 2010; Tenkorang et al., 2013; WHO,

2012), have all been identified as micro or personal-level risk factors for victimization by an intimate partner.

Socio-demographic variables.

Sociodemographic characteristics provide limited explanatory contributions to understanding vulnerability to violence (Koenig et al., 2003). Their limited or inconsistent contributions are likely due to interactions among sociodemographic characteristics (reflecting intersectionality) and with other factors at other levels known to be directly related to IPV experiences. Women living in poverty are disproportionality victimized by IPV globally (Heise & Garcia-Moreno, 2002). Approaches to addressing violence against women in developing countries such as those in sub-Saharan Africa include increasing women's empowerment to impact their socioeconomic status through access to education and employment. However, the relationship between women's empowerment via education and employment and the experience of IPV is not clear. While some research shows that higher individual income and education can have a protective effect against violence, other research has found that neither individual education nor employment prevents women from experiencing IPV, and in some cases the opposite occurs (Bonnes, 2016; Hindin, Kishor, & Ansara, 2008; MacMillan & Gartner, 1999). As discussed in the mesosystem, this may relate to the effects of differentials in education, employment, and income between husbands and wives.

The relationship between education level and IPV is quite varied (Hindin, Kishor & Ansara, 2008). Some research suggests that having no education can be a protective factor against abuse (Jewkes et al., 2002), while other research findings suggest that

women who have secondary school experience have significantly lower odds of experiencing domestic violence compared to those with no education (Koenig et al., 2003). Other research suggests that women with higher levels of education (i.e., secondary education or higher) are more likely to experience certain types of abuse compared to women with no education (Pambe et al., 2014; Tandrayen-Ragoobur, 2018), and other research has found that post-secondary education can be a protective factor against abuse (Ahinkorah, Dickson, & Seidu, 2018; Jewkes et al., 2002; Kimuna, Tenkorang & Djamba, 2018; Lawoko, Jiayou, & Jansson, 2007; Okenwa & Lawoko, 2010). These are not the only reported relationships between level of education and IPV, as other researchers have reported an inverted U-shaped distribution between women's level of education and IPV victimization (Cools & Kotsadam, 2017), with findings explained as directly related to prevailing gender norms and stereotypes.

More specifically, on the one hand, compared to women with higher levels of education, women with low levels of education are not in direct opposition to gender roles and stereotypes that prescribe that men should be higher or more superior than women, and this possibly acts as a protective factor. However, while having an education does allow women to challenge gender norms and stereotypes, according to Jewkes and colleagues (2002), there is a risk of violence unless the woman is sufficiently empowered and there is a shift in the gender norms and stereotypes that view women's empowerment as gender norm transgressions, and that normalizes the use of violence in conflict situations. So, while education does become a resource for women to enhance what has been referred to as their "bargaining ability" it is not enough, or at

least not directly enough, to reach "a critical level" to consistently lead to women's

empowerment and thus reduced IPV (Jewkes et al., 2002, p. 1615; Pambe et al., 2014, p.

1154). As stated earlier, it is not necessarily individual-level education that impacts IPV

experiences, but rather spousal disparities in education levels that violate cultural and

gender norms, and place women with high levels of education (relative to their

husbands) at heightened vulnerability for IPV.

Linked to poverty are rates of unemployment, which have also been found to be

related to IPV globally (Cunradi, Todd, Duke, & Ames, 2009; Heise, 1998; Krishnan et al.,

2010; Heise & Garcia-Moreno, 2002). Similar to the other sociodemographic variables,

the relationship between individual employment status or financial earnings and IPV

tends to vary. For instance, a study in Uganda found that when women were employed,

they were less likely than unemployed women to be abused, highlighting how earning

power and higher socioeconomic status were negatively related to IPV (Kwagala et al.,

2013). However, other researchers have reported positive associations between

women's employment and IPV (Ahinkorah, Dickson, & Seidu, 2018; Kimuna, Tenkorang,

& Djamba, 2018). For instance, using DHS data for Kenya, multiple researchers have

found that, compared to non-working women, employed and working women

experienced higher levels of physical, emotional, and sexual violence (Kimuna,

Tenkorang, & Djamba, 2018; Lawoko, Jiayou, & Jansson, 2007), a finding that was also

reported by Antai and Adaji (2012) using DHS data for Nigeria. Again, these findings are

explained as a result of culturally ingrained and continually reinforced gender norms and

expectations.

Women's employment may challenge or threaten patriarchal norms and beliefs that it is men's role and duty to be primary providers and breadwinners for their families, and as a result, this gendered expectation could lead to the belief among men that their wife is not performing her wifely duties. She is, instead, challenging men's roles and accessing different (and public) networks in spaces outside of the household. Collectively, these result in a higher risk for IPV victimization (Cools & Kotsadam, 2017). In a discussion of women's self-image and collective agency via employment and microenterprises, Lo (2011, p. 168) characterizes how women utilize self-empowering strategies by choosing names for their enterprises that "reinforce their agency…and embody symbolic power," with translated names like "Committed and Determined to Work for Our Pride and Dignity." While these naming strategies characterize the collective actions of employed women, they also characterize how women's employment may be interpreted as a public "threat" to masculinity. Thus, violence may be viewed as a legitimate and acceptable tool to use against women whose employment deviates from culturally prescribed gender roles (Antai & Adaji, 2012; Bowman, 2013; Cools & Kotsadam, 2017; Kimuna, Tenkorang & Djamba, 2018; Lawoko, Jiayou, & Jansson, 2007). Although individual education and employment may have some impact on IPV experiences (primarily through attitudes towards IPV), educational and employment differences between spouses (as discussed in the mesosystem section) and the interpretations of the meaning of education and employment (as in the naming of enterprises), might be more important when considering the impact of these individual empowerment measures on IPV.

History of abuse.

Previous victimization, whether in childhood or adulthood, has been found to be a risk factor for IPV in both population-based studies and studies with smaller convenience samples (Dunkle et al., 2004; Erulkar, 2013; Herrenkohl et al., 2008; Kwagala et al., 2013; Owaje & OlaOlorun, 2012; WHO, 2012). For instance, using structured survey interviews with 924 women in Nigeria, Owoaje, and OlaOlorun (2012) found that one of the most significant predictors of physical IPV victimization was previous psychological or sexual victimization. Similarly, Dunkle and colleagues (2004) interviewed 1,395 women attending community clinics in South Africa and reported that previous victimization in the form of child sexual assault was positively associated with increased risk of physical and sexual IPV in adulthood, and that repeated physical and sexual assault were most common when financial and/or emotional abuse was also experienced.

The relationship between witnessing marital violence as a child and its connection to IPV victimization and perpetration is consistent throughout the international literature. Compared to children who do not witness violence in the home, children who witness family violence are more likely to become both victims and perpetrators of IPV (Ellsberg et al., 1999; Gass et al., 2011; Heise, 1998; Jewkes, Levin, & Penn-Kekana, 2001; Koenig, et al., 2003; Nelson & Zimmerman, 1996; Svenkeson, 2018; Tenkorang et al., 2013; Thomson, Bah, Rubanzan, & Mutesa, 2015). Although the exact ways that witnessing or experiencing violence in childhood translates into abusive behaviours or experiences in adulthood is unclear, childhood abuse experiences have

been shown to result in IPV victimization both through social learning and economic pathways. Dutton's (1995) research, for example, demonstrated that early abuse could impact personality and influence behaviour through learning and socialization mechanisms. The effect of such learning and socialization on IPV is illustrated in the analyses of Tenkorang and colleagues (2013) using the Kenyan DHS that showed that women who witnessed family violence (including violence between parents), and who thought wife-beating was justified, were significantly more likely to experience physical and sexual violence in their relationships than those who did not. This supports the conclusion that witnessing family or parental violence or experiencing previous childhood or other abuses set the stage for what is typical, normal, or to be expected within intimate relationships. An economic pathway between early experiences of violence and IPV is illustrated in Henry, Fulco, and Merrick's more recent (2018) research that identified links between early maltreatment and economic difficulties in later life. Combining these pathways, it has been hypothesized that abusive homes not only teach and normalize violence and the tolerance of violence but can also result in substantial psychological and emotional disturbances that can influence and combine with variables from other levels of the ecological model (e.g., education and occupation) to heighten or reduce risk of IPV (Heise, 1998).

Individual attitudes towards IPV.

Considerable research focuses on the centrality of attitudes to the examination of violence against women (Allen & Devitt, 2012; Flood & Pease, 2009; Fulu & Heise, 2015). Gender roles that endorse male authority and power and female acquiescence

and obedience have been associated with the endorsement of violence to control an

erring female (Maldonado, Watkins, & Dilillo, 2015; Ritzel-Jaffe & Wolfe, 2001). When

prevailing attitudes and norms emphasize men's dominance over women, physical

chastisement in the form of wife-beating is not only justifiable but also necessary to

ensure a woman adheres to prescribed norms (Adjei, 2015; Allen & Devitt, 2012; Fidan,

2017; Hajjar, 2004; Haj-Yahia, 2003). In their cross-national survey of attitudes towards

IPV in sub-Saharan Africa, Uthman and colleagues (2009) found that most men were in

support of violence towards one's wife if she expressed disagreement, argued with her

husband, or went out without him knowing. This lack of obedience and submission by

one's wife is emphasized as a reason for physical violence among men in Uganda, where

approximately 70% of men support violence against wives (Koenig et al., 2003). Women

often view violence against women in intimate relationships as a religious or cultural

norm, despite acknowledging its negative impact on health and well-being (Ilika, 2005).

In fact, many studies report that women are often more tolerant of men's violence in

intimate relationships than are men (Koenig et al., 2003; Uthman et al., 2009). For

instance, in Koenig's (2003) study, 7 in 10 men endorsed attitudes supportive of IPV,

while almost 9 in 10 women had tolerance for IPV in at least one specific instance.

Similarly, in their analysis of DHS data from 17 countries in sub-Saharan Africa,

Uthman and colleagues (2009) found that women were 34% more likely than men to

justify intimate partner violence against women. Jakobsen (2014) identified a

differentiation between a "good beating" and a "bad beating." The former refers to a

justified husband-to-wife beating that serves a social purpose and does not impose

excessive physical harm. The latter involves excessive force and injury that impacts on a

wife's ability to work and has no social purpose (Jakobsen, 2014). There is consensus

that a "bad beating" is excessive, unacceptable, and often related to men's alcohol

consumption, while "good beatings" are not only acceptable but are supported when

women do not meet gender norm expectations and need their husbands to correct their

erring ways (Adjei, 2015; Burrill, Roberts & Thornberry, 2010; Heise, Ellsberg, &

Gottmoeller, 2002; National Research Council, 2015). "Good beatings," or forms of less

severe physical abuse, are often conflated with love and affection, with wives believing

that their husbands do not love them if their husbands do not engage in some level of

violence (Ilika, 2005). Gender norms thus support violence with "good beatings" both a

practice of gender and a gendering practice, by enacting masculinity and correcting the

failure of a wife to perform femininity (Jakobsen, 2014; McCloskey et al., 2016).

Being tolerant of wife-beating is positively correlated with the probability of

actual abuse on the part of both victim and perpetrator (Antai & Adaji, 2012; Cools &

Kotsadam, 2017; Linos et al., 2013; Mugoya, Witte, & Ernst, 2015; Uthman et al., 2010).

Studies with women in Nigeria, Kenya, and throughout sub-Saharan Africa have

reported a positive relationship between women's supportive or tolerant attitudes

regarding violence and their experiences of physical and/or sexual IPV (Kimuna,

Tenkorang, & Djamba, 2018; Linos et al., 2013; Owoaje & OlaOlorun, 2012; Tenkorang et

al., 2013; Uthman et al., 2009). Agreement with violence as a means of punishment of

wives for failing to meet prescribed gender roles varies by individual-level factors, as

men with higher incomes and higher levels of educational attainment, and who live in

cities rather than rural areas have been shown to be less likely to agree with violence towards wives (Lawoko, 2008; McCloskey et al., 2016; Uthman et al., 2009). Similar findings have been reported in other studies. Using the DHS for Nigeria (2003), Antai and Antai (2008) explored the predictors of women's attitudes towards IPV in rural Nigeria. Their findings emphasized the interactive elements of different factors associated with IPV, including social, religious, and cultural influences. More specifically, Muslim women, women with low levels of education, and women in a household with low levels of wealth were more likely to tolerate IPV. In total, there were significantly higher proportions of rural women with tolerant attitudes towards violence among the women without access to newspaper or television, as well as among those who were illiterate (Antai & Antai, 2008). Thus, attitudes are influenced by the characteristics of the location of residence, as many women who reside in rural areas may be illiterate and unaware of their rights and as rural residency separates individuals and communities from the "influence of central government or [the] rule of law" prohibiting forms of IPV (Allen & Devitt, 2012; McCloskey et al., 2016). These interaction effects between individual-level factors, relationship-level factors, community-level characteristics, and acceptance of IPV highlight the complexity of victimization in intimate relationships, and the deep-rooted influence of culture, religion, and processes of socialization on women's personal beliefs towards wife-beating (Ilika, 2005; Uthman et al., 2009).

Although the literature on attitudes towards IPV is integral to our understanding, much of this literature on attitudes and tolerance of IPV use DHS data or DHS style

measures of attitudes, which have limited contextual details. For instance, while typical

questions ask whether or not a husband is justified in beating his wife under a series of

circumstances (e.g., if wife goes out without telling husband, neglects the children,

argues with husband, refuses to have sex with husband, or burns the food), the

underlying intention for the wife's or husband's behaviour is not provided (Tsai et al.,

2017). To address this gap in understanding, Tsai and colleagues (2017) explored

attitudes among a sample of men and women in Uganda. Through random assignment,

participants were administered one of three survey conditions varying the wife's

intention for violating behavioural norms: 1) women intentionally violated (e.g., A

husband is justified in hitting or beating his wife if she goes out without telling husband,

"just for fun"); 2) women unintentionally violated (e.g. "A husband is justified in hitting

or beating his wife if she goes out without telling her husband because he is at work,

and she just received news her mother was ill"); and 3) DHS style questions with little

detail about intention (e.g. "A husband is justified in hitting or beating his wife if she

goes out without telling him or asking his permission"). The highest levels of tolerance

for IPV were among those who completed the survey describing the wife as

intentionally violating behavioural standards (e.g., burning the food, neglecting

children), the lowest levels of tolerance were among those who completed the survey of

wife's behaviours as unintentional, and the DHS style questions resulted in tolerance

levels in the middle (Tsai et al., 2017). These findings suggest that while DHS style

questions do elicit tolerance levels in between ascribing fault and not ascribing fault to

women, it is likely that responses to these questions are influenced by assumptions of

the wife's (and/or the husband's) motivations, and may therefore not be completely

accurate reflections of individual beliefs about the acceptability of IPV.

Moreover, research has shown that women have conflated terms like

"punishment" and "beating," suggesting that tolerance for "beating" may reflect a

tolerance for "punishment" (perhaps in the form of a "good beating") which may or may

not be interpreted the same (Ampofo et al., 2004; Barnett, Maticka-Tyndale, & Trocaire

Kenya, 2016). Mixed-methods research in Kenya (n=200) has found similar trends. The

survey findings suggest that while approximately 18% of women accepted and valued

men's use of violence, subjective feelings about one's own experiences of abuse suggest

that only four percent of women believed they deserved the abuse or found it

constructive or educational (Swart, 2017, p. 199). Thus, while many women accept or

tolerate the gendered belief that women deserve to be beaten when they fail to meet

expected gendered responsibilities (National Research Council, 2015) when it comes to

their subjective experiences of IPV, patriarchal norms and ideals appear to be rejected.

As McCloskey and colleagues conclude based on their review of research:

> Beliefs relating to gender roles in marriage lay the groundwork for IPV in many
>
> regions of Africa. Patriarchal beliefs are not the only explanation for partner
>
> abuse, but such attitudes sustain community tolerance of IPV reducing the
>
> chance for a systemic social response…patriarchal ideology is often equally
>
> shared by men and women in Africa; efforts to change ideology need to address
>
> both sexes. (McCloskey et al., 2016, p. 279)

Concluding Thoughts and Next Steps

The dominant theoretical approaches to studying IPV are instrumental in understanding the nature of IPV. While researchers using different approaches to studying IPV view the characteristics and influences of IPV quite differently, integrative approaches like the social-ecological framework facilitate organizing and integrating elements and findings from multiple theoretical approaches. The social-ecological model allows for an examination of IPV experiences among women in post-colonial societies against a backdrop that takes into account the implications of colonialism on the current societal context, including the macro-level norms and beliefs that place women in a subordinate position relative to men (Fulu & Heise, 2015; Yodanis , 2004; WHO, 2012). This model also considers relationship-level dynamics and individual-level characteristics, as IPV results from an interplay of diverse multi-level factors that influence and interact at different levels of one's ecological environment to increase or decrease one's vulnerability for IPV.

Based on the above review of the literature on the nature of IPV and the factors that influence IPV experiences, a theoretically informed model and multi-phase analysis exploring IPV in eastern sub-Saharan Africa has been designed. The goal of this research is to describe and compare IPV experiences among women in Kenya, Tanzania, and Uganda, to explore the underlying types or patterns of IPV among women in these countries, and to examine how the previously identified factors or correlates for IPV are related to different types or classes of IPV. Viewing IPV as comprised of different types of abuse and examining multi-level factors within one's ecological framework, this

research simultaneously incorporates multiple theoretical descriptions and explanations of IPV into a comprehensive model. Such a comprehensive model takes into account large-scale cultural and social norms and attitudes about the acceptability of violence in relationships, the role of patriarchy, and the influence of and interaction of multi-level stressors to "helps researchers grapple with the complexity of real life" (Heise, 1998, p. 285).

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CHAPTER 3 : CHARACTERISTICS OF IPV IN EASTERN SUB-SAHARAN AFRICA

Violence against women (VAW), including intimate partner violence (IPV),

represents a severe social problem, pervasive public health issue, and a fundamental

violation of women's human rights (Cavanaugh et al., 2012; Fulu & Heise, 2015; WHO,

2013; Koenig et al., 2003). Defined as any behaviour by a current or former intimate

partner that causes physical, psychological, or sexual harm (WHO, 2012; 2015), the

consequences of IPV are vast. Reported individual outcomes include: physical injuries;

emotional or psychological trauma; poor mental health including depression and

suicide; harmful impacts to women's sexual and reproductive health including induced

abortion, increased risk of diseases like HIV and other STI's; poor health and well-being

of children of survivors (e.g., low birth weight, premature birth); disability; death;

poverty; and on a broader scale, enormous financial implications to society as a whole

(Amhed et al., 2006; Chai et al., 2016; Devries et al., 2013; Dillon, Hussain, Loxton, &

Rahman, 2013; Dunkle et al., 2004; Ellsberg et al., 2008; Kameri-Mbote, 2000; WHO,

2013). VAW restricts women's participation in society, causes substantial suffering, and

characterizes an essential barrier to eliminating poverty and promoting peace (Fulu &

Heise, 2015; WHO, 2013).

Violence against women is preventable, but "in order to develop and implement

effective prevention and interventions globally, researchers and practitioners need to

understand the scale, scope and nature of the problem" (Fulu & Heise, 2015, p. 5).

Building on our understanding of this problem is the primary objective of this paper, to

be accomplished by developing a profile of IPV[3] experiences among a sample of women

in three countries (Kenya, Tanzania, and Uganda) with high rates of IPV. Rather than

focusing the analysis on a single country, focusing on these three countries collectively

permits the creation of a profile of IPV across countries and to larger geographical

regions and sub-regions (e.g., Eastern sub-Saharan Africa). There is support and a

practical basis for examining these three countries collectively. Kenya, Tanzania, and

Uganda share geographical borders, have similar climatic characteristics, overlap in

multi-ethnic and religious groups, have a shared history of British colonialism, and have

worked together on a regional basis to address common problems such as violence

against women (National Research Council, 2015; Engilbertsdottier, 2011). Additionally,

high-quality population-based surveys have been conducted that have produced specific

and relevant data in all three countries, facilitating both cross-country comparisons and

regional pooled analyses of IPV experiences (National Research Council, 2015). This

research asks: (1) what is the frequency and nature of intimate partner violence in these

countries, and (2) does the violence look different or similar within and across

countries?

Worldwide, approximately 30% of women over the age of 15 have experienced

physical or sexual violence by an intimate partner (Devries et al., 2013; WHO, 2013).

While this lifetime prevalence is characteristic of rates in the Americas where many of

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[3] In this context, "intimate partner violence" (IPV), "domestic violence" (DV), "spousal violence", and "wife-abuse" are used interchangeably. Variations in terminology stem from variations in the literature.

the theoretical approaches and subsequent interventions for IPV have been developed,

rates of IPV in Africa average approximately 37% across the continent, and exceed 50%

in areas of eastern sub-Saharan Africa (NRC & IOM, 2015; Kenya Demographic and

Health Survey (KDHS), 2015; Odero et al., 2014; Tanzania Demographic and Health

Survey (TDHS), 2011; Uganda Demographic and Health Survey (UDHS), 2012; WHO,

2013). Given this persistently high prevalence, "there is a clear need to scale up efforts

across a range of sectors, both to prevent violence from happening in the first place and

to provide necessary services for women experiencing violence" (WHO, 2013, p. 2).

While laws have been enacted to protect women from abuse in several African

countries, enforcement is problematic as many of these laws violate or are in conflict

with gender norms, customs, and beliefs that emphasize that what happens in one's

home is private and not subject to external action (Bowman, 2003; Kameri-Mbote,

2000). In their overview of gender-based violence in sub-Saharan Africa, Kimuna,

Tenkorang, and Djamba (2018) noted that norms, values, and cultural practices

surrounding gender and the prescribed gender roles often supersede laws and

legislation. This highlights the importance of researching IPV through a focused and

tailored approach that recognizes the cultural context of East Africa and how it impacts

the nature of IPV (National Research Council (NRC) & Institute of Medicine (IOM), 2015).

Background: The East African Context

Given that IPV is "grounded in an inter-play among personal, situational, and

socio-cultural factors" (Lawson, 2012, p. 263), research that examines IPV in post-

colonial countries like Kenya, Tanzania, and Uganda must take into account the

historical processes and experiences of colonization and how these impact personal, situational, socio-cultural, and structural factors that can set the stage for IPV (Allman, Geiger, & Musisi, 2002; Ampofo, Beoku-Betts, Njambi & Osirim, 2004; Burrill, Roberts, & Thornberry, 2010; Connell, 2015; Hall, 2015; Oyewumi, 2011; Steady, 2005; Swart, 2017; Wilson, 2015). Although a common tendency in much of the western literature is to perceive gender divisions in sub-Saharan Africa as "traditional" or "indigenous" (Oyewumi, 1997), many scholars argue that pre-colonial societies were neither patriarchal nor structured by gender (Connell, 2015; Oyewumi, 1997, 2011; Steady, 2005). Nevertheless, norms and practices differentiated men from women and 'regulated' relationships in the pre-colonial era (see Mbote & Mubuu, 2007), and prior to colonization, it was not uncommon for women in various regions of sub-Saharan Africa to own land and/or other assets, to engage in community activities, politics, and organizations, and to hold meaningful and even authoritative positions as female rulers, leaders, and queens (Allman, Geiger, & Musisi, 2020; Aulette, 2009; Fallon, 2008; Oyewumi, 2011).

Processes of colonization and the imposition of western ideals and institutions such as education, religion, family/marriage, law, politics, economics, and social systems stressed distinctions between the public and private sphere. Men and women's roles were defined within each with women severely restricted, marginalized, and excluded from the formal systems of education, politics, economics, and social life (Akin-Aina, 2011; Aulette, 2009; Burrill, Roberts, & Thornberry, 2010; De Haas & Frankema, 2018; Fallon, 2008; Hall, 2015; Musandu, 2012). This resulted in a political repositioning of

men above women. Women were relegated to the private, domestic sphere while men

dominated the public sphere of community, politics, formal education, and the market

economy (De Haas & Frankema, 2018; Fallon, 2008; Thomson, Bah, Rubanzan, &

Mutesa, 2015) thereby institutionalizing gender inequality (De Haas & Frankema, 2018).

Pre-colonial norms and the norms, systems, and institutions imposed via

colonization as they reinforced and transformed each other through the process of

colonization (De Haas & Frankema, 2018; Schmidt, 1991). The contemporary practices

associated with IPV that were identified by McCloskey and colleagues based on their

comprehensive review of population-based research on IPV in sub-Saharan Africa reflect

this mixture of the pre-colonial and colonial. These include bridewealth/brideprice or

dowries; polygyny; exclusion, and restriction from education; employment; decision-

making regarding their own and their children's lives; sexual control; and the general

commodification and ownership of women by men (McCloskey et al., 2016). Bride-

wealth provides one example of the implications of the transactional nature of marriage

for women. Bride-wealth constitutes a future husband's payment in livestock or other

assets to the parents of a potential bride. It has been argued that this positions women

as a commodity to be purchased with their subsequent status that of property

belonging to their husbands (Bingeheimer, 2010; Bowman, 2003; Kameri-Mbote, 2000).

This transaction has implications if a woman wants to leave an abusive relationship. She

would have to leave her children who "belong" to their father and his family (National

Research Council, 2015). The woman's family would also be responsible for returning

the bride-wealth, which may represent a severe financial burden for her family

(Bowman, 2003; Kameri-Mbote, 2000).

Women in Kenya, Tanzania, and Uganda live with societal and cultural norms

that emphasize men's superiority over women, and women's subordination to men

(Jakobsen, 2014; Jayachandran, 2015; Kimuna, Tenkorang, & Djamba, 2018). Gender

norms outline how men should perform masculinity and how women should perform

femininity and how these roles establish men's control of women and serve to legitimize

power relations of inequality (Ampofo, 2001; Jakobsen, 2014; Jewkes et al., 2002).

Norms dictate that wives should always obey their husbands and always act and appear

submissive, while husbands should always be the decision-makers who are in complete

control of their wives and their households, and must actively maintain their position of

superiority, authority, and power over women (Adjei, 2012; Bowman, 2003; Cubbins et

al., 2014; Heise, 2011; Jakobsen, 2014). Enacting masculinity and femininity is both a

private and a public matter with punishment the result of transgression in both

domains. In interviews and focus groups with women, men, and service providers in

Tanzania, Jakobsen learned, for example, that if a wife answered her husband too

casually in the presence of others, norms dictated that she should be beaten because of

what the others might think (2014). Violence, therefore, serves not only as a corrective

measure to ensure women are enacting their expected gender roles but also serves to

(re-en) force gendered performances of masculinity and femininity and to maintain

gender hierarchies (Hunnicutt, 2009; Jakobsen, 2014).

Although beliefs, norms, and practices in eastern Africa are not inherently

violent, violence is legitimized, normalized, tolerated and accepted by both men and

women in certain instances (Adjei, 2015; Jakobsen, 2014; Koenig et al., 2003;

McCloskey, Boonzaier, Steinbrenner, & Hunter, 2016; Mugoya, Witte, & Ernst, 2015;

Uthman, Lawoko & Moradi, 2009). Studies across numerous countries in sub-Saharan

Africa have found that violence is perceived along a continuum of acceptability. A "good

beating" as opposed to a "bad beating," which is undeserved, excessive, or stemming

from drunkenness, refers to an acceptable husband-to-wife beating that serves a social

purpose (Jakobsen, 2014). While "bad beatings" are not condoned, "good beatings," or

rather tolerated beatings, are both accepted and supported ways of correcting women's

erring ways to ensure women act according to their expected gender roles (Adjei, 2015;

Bowman, 2003; Heise, Ellsberg, & Gottmoeller, 2002; Ilika, 2005; Kameri-Mbote, 2000;

National Research Council, 2015). Such normalization and acceptance or tolerance of

violence make addressing the problem of VAW challenging (Bowman, 2003; Ilika, 2005;

Fidan, 2017).

Successfully addressing IPV and protecting women requires a multi-faceted

approach dependent on active commitment and collaboration among community

members (both male and female), legal reforms, public education, and individual

psychological change (Bowman, 2003; Fulu & Heise, 2015; Svenkeson, 2018; WHO,

2010). However, to design effective programmes and policies to keep women safe, we

must understand the complexities and characteristics of IPV within the context of

different world regions, including those characteristics that are similar across countries

and regions and those that are unique to more limited jurisdictions. This research begins

this process of understanding, with women from three countries in eastern sub-Saharan

Africa that share several historical, political, and economic characteristics. The primary

objectives of this analysis are to describe the nature of IPV experiences among women

in Kenya, Tanzania, and Uganda, and to explore whether these experiences are similar

or different across these three countries.

Methods

Data and Sampling

A secondary data analysis was run using the 2014 Kenyan, 2015 Tanzanian, and

the 2011 Ugandan Demographic and Health Survey (DHS) data. DHS data are derived

from cross-sectional surveys conducted as structured interviews and designed to collect

data on population and health trends. More recent survey waves include a domestic

violence module to provide information on women's experiences of interpersonal

violence. Although collected approximately every five years, due to the number of

countries surveyed and the procedures involved with data collection and cleaning,

survey dates across countries do not always correspond. The data used in this research

were the most recent available at the time of analysis. Sampling procedures in the DHS

involve two-stage cluster sampling to obtain a nationally representative sample. DHS

interviewers were trained to follow the WHO (2001) ethical and safety

recommendations for research on domestic violence, including "procedures that meet

international requirements of informed consent and privacy" (Kishor & Johnson, 2004,

p. 7; Emery, 2011). Details of the sampling design and procedures are reported in the

official 2014 Kenyan (KDHS, 2014), 2011 Ugandan (UDHS, 2011), and the 2015

Tanzanian (TDHS, 2015) DHS reports. This study used data from women aged 15–49 who

were ever married or in a union[4] and who completed the domestic violence module,

resulting in a total unweighted sample size of 13,821 women across the three countries

(Kenya=4,519 women; Tanzania=7,597; Uganda=1,701).[5]

Data Analysis

Using IBM SPSS Version 24, univariate and bivariate descriptive statistics were

run to assess the nature of IPV experiences, including similarities and differences in IPV

victimization (and perpetration) within and across countries. For all analyses using

individual sociodemographic variables, the data were weighted using the normalized

individual weight while analyses using domestic violence variables were weighted using

the normalized domestic violence weight.[6] Weights were constructed by the DHS to

account for the complex survey design and to ensure findings are representative of the

population for the individual countries. All DHS conventions for using these weights

were followed (DHS, 2018). Since sample sizes vary, and data were collected at different

time periods and thus are neither necessarily representative of any overall population

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[4] Analysis was restricted to all women who indicated they are or have been in a relationship/union.
[5] Reported N represents unweighted number of women who completed the DV module. This sample size varies from analyses using individual weight and analyses using domestic violence weight.
[6] Sampling weights are utilized to adjust for differences in the probability of selection and interview. Due to these weighting protocols N's between individual weighted items and domestic violence weighted items are slightly different. While individual country analyses utilize sampling weights to give each survey a nationally representative estimate, weights were re-normalized for pooled estimates by weighting each survey equally.

nor the overall region of eastern sub-Saharan Africa (which also includes Djibouti,

Eritrea, Ethiopia, Somalia, and Sudan), consistent with advice from DHS experts[7] and

research pooling DHS data (Polis et al., 2016), pooled sub-regional estimates were

derived by giving equal weight to each country, regardless of sample size. As such, the

overall pooled estimates reflect the method-specific (Polis et al., 2016) average rates

across the countries. Descriptive statistics and crosstabulations were run. Since small

differences are often statistically significant with large samples, measures of association

(phi φ) were utilized to examine the strength of the relationship, using the rule that

<0.10 is a negligible relationship, 0.10–0.20 is a weak relationship, 0.20–0.40 is a

moderate relationship, 0.40-0.60 is a relatively strong relationship, and greater than

0.60 is a strong or very strong relationship (Rea & Parker, 1992, p. 203).

Measures

    Sociodemographic factors.

    Sociodemographic factors and characteristics of the sample included *age*,

measured as a continuous variable, e*ducation level* (no education, primary education,

secondary education, and higher education), *place of residence* (urban/rural), *marital*

status (married, living together, divorced, separated, widowed), *employment status*

(employed/not employed), *financial earnings relative to their husband* (earns more

money than husband, earns less money than husband, earns about the same amount of

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[7] https://userforum.dhsprogram.com/index.php?t=msg&th=6919&goto=14451&#msg_14451

money as husband), *asset ownership* (owns a house alone or jointly with husband, owns

land alone or jointly with husband), and whether husbands have *other wives* (yes/no).

While these sample characteristics are not exhaustive, they were included to provide a

broad, overall description of some of the characteristics of these women.

Characteristics of abuse.

Measurement of domestic violence within the DHS was developed after

consultation with experts on domestic violence measurement, gender, and survey

research, and has evolved to ensure measures are valid, ethical standards are

maintained, and underreporting minimized (Ellsberg et al., 2001; Kishor & Johnson,

2004; Macquarrie, Winter, & Kishor, 2014). The domestic violence module uses multiple

items to measure different types of abusive experiences to help ensure that measures

are understood equally across contexts, and international comparisons are possible

(Kishor, 2005). The types of abuse assessed in the domestic violence module of the DHS

include emotional abuse; less severe physical abuse; severe physical abuse; and sexual

abuse. While items measured lifetime experiences of IPV and experiences in the past 12

months, this analysis focused explicitly on abuse in the past 12 months, as this

represents a timeframe considered to characterize women "who are currently at risk"

(Kishor, 2005, p. 5). Individual items were examined and, consistent with DHS reports

and other researchers using DHS data (see for example: Bazargan-Hejazi, Mederios,

Mohammadi, Lin, & Dalal, 2013; Cools & Kotsadam, 2017; Tandrayen-Ragoobur, 2018),

overall recoded binary measures of each of these types of abuse (e.g., emotional, less

severe physical, severe physical, and sexual) were the primary focus. In addition to these

abuse experiences, measures of control and fear were also included, as they have been

identified as integral elements of IPV that can help to account for the context in which

abuse takes place (Clements & Holtzworth-Munroe, 2009; Dobash & Dobash 1979;

2004; Kurz, 1989; Wester, 2009).

Emotional violence/abuse.

Emotional abuse was measured with three questions that asked whether the

woman's husband or partner had ever: humiliated her, threatened to harm or hurt

someone she cares about or insulted her to make her feel bad. If respondents answered

yes to any of these three items in the last 12 months, they were coded as 1

[experienced emotional violence], and if they did not endorse any of the three items,

they were coded as 0 [did not experience emotional violence in the last 12 months].

Physical violence/abuse.

The DHS domestic violence module uses the modified version of the conflict

tactics scale (CTS), which asks respondents to indicate whether they have experienced

any of 10 acts ranging from threats, to beatings, to forcing sexual intercourse. DHS

reports (KDHS, 2015; UDHS, 2012; TDHS, 2016) and subsequent publications utilizing

DHS data (Bazargan-Hejazi, Medeiros, Mohammadi, Lin, & Dalal, 2012; Cools &

Kotsadam, 2017; Dalal, 2011; Ellsberg et al., 2001; Tandrayen-Ragoobur, 2018; WHO,

2012) tend to group these CTS items into three separate composite measures: less

severe physical violence, severe physical violence, and sexual violence. This research

does the same. In keeping with other analyses (Benebo et al., 2018; Durevall & Lindskog,

2015), all three composite measures were recoded into binary items. Endorsement of

any one item measuring each type of violence (e.g., less severe physical abuse, severe physical abuse, and sexual abuse) in the last 12 months was coded as 1.

Less severe physical violence/abuse was measured with four items assessing whether the respondent had been: pushed, shook, or had something thrown at them by husband/partner; slapped by husband/partner; punched with fist or hit with something harmful by husband/partner; or had their arm twisted or hair pulled by husband or partner. A binary item was created, with the endorsement of any one of these four items in the last 12 months coded as 1 [experienced less severe physical violence in the last 12 months].

Severe physical violence/abuse was comprised of three items which asked respondents if they had been: kicked or dragged by husband/partner; strangled or burnt by husband/partner; or threatened with knife/gun or other weapon by their husband/partner. Endorsement of any one of these items within the last 12 months was coded as 1 [experienced severe physical violence in the past 12 months].

Sexual violence/abuse.

Whether women had experienced sexual violence/abuse was assessed with three questions about experiences of having been: physically forced into unwanted sex by husband/partner; forced into other unwanted sexual acts by husband/partner; or physically forced to perform sexual acts the respondent didn't want to. A binary item was created, with the endorsement of any one of these items in the last 12 months coded as 1 [experienced sexual violence by husband/partner in the past 12 months].

Control.

Controlling behaviours/attitudes were measured with four items asking whether a woman's partner/husband: gets jealous if/when she talks to other men, tries to limit her contact with family, has accused her of unfaithfulness, or insists on knowing where she is at all times. If respondents answered yes to any of these four items, they were coded as having experienced controlling behaviours/attitudes by their partners [1]. These items were assessed separately from the final item in this series, which asked whether one's husband/partner does not permit her to meet female friends. Rather than reflecting a controlling behaviour or attitude, this item appears to reflect *achieved control*. Response options to this variable included 1 [yes] and 0 [no]. These distinctions in control contend with Emery (2011) and Gulliver & Fanslow's (2015) criticism that many researchers fail to account for control and the differences between achieved and attempted control, which can represent two very different experiences for women.

Fear.

Fear was measured with an item that asked respondents if they were ever fearful of their partner, with response options of most of the time afraid, sometimes afraid, and never afraid. Response options were dichotomized so that 0 = never afraid, and 1 = afraid sometimes/always. This item was included because, in the IPV literature, researchers have identified fear as a way for men to control female partners (Clements & Holtzworth-Munroe, 2009), with fear resulting from both perceived and actual risk of violence (Jaquier & Sullivan, 2014).

Results

Sample Characteristics

Weighted proportions of the socio-demographic characteristics of the sample are presented in Table 3.1. On average, women were 30-32 years of age, and the majority were rural residents with primary school education. Higher education was least common among women in Tanzania who were significantly less likely than women in Kenya and Uganda to report having higher education, although this relationship was weak ($\varphi = -0.185$; $\varphi = -0.103$ respectively). Most women were married or living with a current husband/partner, with official marriage rates significantly lower among Ugandan women compared to Kenyan and Tanzanian women. Tied to these official marriage rates are rates of polygyny where just under one in five women reported being in polygynous relationships, with the highest rates among women in Uganda. Ugandan women in polygynous relationships report, on average, that their husbands have four other wives, a proportion double that reported among women in Kenya and Tanzania. Most women live in homes where their husbands are the household head and, on average, approximately six in ten women own a house and/or land alone or jointly with their husband.

Table 3.1: Sample Characteristics Weighted by Individual Weight

	Kenya	Tanzania	Uganda	+Total
Average Age	31.54 yrs	31.48 yrs	30.34 yrs	
Rural Residence	60 %	68.7 %	83.4 %	71.4 %
Education				
None	9.5 %	18.3 %	16.2 %	15.0 %
Primary	55.9 %	67.7 %	60.8 %	61.8 %
Secondary	26.5 %	13.1 %	18.7 %	19.0 %
Higher	8.1 %	1.0 %	4.3 %	4.3 %
Husband is Head of House	64.4 %	71.2 %	68.0 %	68.0 %
Marital Status				
Married	77.6 %	60.5 %	45.7 %	60.2 %
Living w/part	7.6 %	24.1 %	39.1 %	24.7 %
Widowed	4.8 %	3.4 %	4.2 %	4.1 %
Divorced	2.4 %	5.4 %	0.6 %	2.8 %
Separated	7.6 %	6.6 %	10.4 %	7.2 %
Multiple Wives	13.9 %	17.3 %	26.8 %	19.8 %
Earns $				
> Husband	11.5 %	9.0 %	8.7 %	9.7 %
< Husband	72.5 %	66.5 %	80.0 %	73.4 %
= Husband	12.2 %	20.9 %	7.4 %	13.2 %
Owns house alone or jointly	58.6 %	51.1 %	55.8 %	55.0 %
Owns land alone or jointly	52.8 %	45.1 %	50.1 %	49.1 %
Any ownership alone or joint	62.0 %	58.1 %	63.8 %	61.3 %

Footnote: Data are based on (individual) weighted data. (Weighted sample sizes for demographic variables for each country are: Kenya 4348; Uganda 1737; Tanzania: 7738) + data are weighted, giving equal weight to each country.

Experiences Of IPV: Nature, Frequency, And Severity

Table 3.2 provides descriptive statistics for the different IPV items. While individual items were asked, the binary composite measures are reported here to illustrate the trends. Please see appendix (Table 3.2a) for the results on the individual items. In addition to the overall violence characteristics, given women's historical omission from formal institutions (e.g., formal education, access to the market economy

and thus paid labour, and ownership laws), additional descriptive statistics were run to

provide details to the profile of IPV experiences among this sample. In particular, given

that approximately 20% of the pooled sample have at least secondary school education,

20% have financial earnings greater than or equal to their husbands, and 60% have joint

or sole ownership of land or property, violence experiences were also examined based

on these characteristics of access to formal education, earnings, and/or access to

ownership (Table 3.3).

Table 3.2: Violence Characteristics Weighted by DV Weight (Past 12 months)

	Kenya	Tanzania	Uganda	Total
Composite Measures				
Emotional Abuse	23.9 %	28.1 %	31.6 %	28.0 %
Less Severe Physical Abuse	35.6 %	38.9 %	41.2 %	38.7 %
Severe Physical Abuse	16.8 %	17.7 %	22.0 %	18. 9 %
Sexual Abuse	13.3 %	13.6 %	27.5 %	18.3 %
Any Abuse Last 12 Mos.	33.0 %	38.0 %	43.0 %	37.7 %
Fear	35.9 %	44.0 %	49. 6 %	43.4 %
Control Measures				
Controlling Behaviours	62.9 %	74.0 %	74.1 %	70.5 %
Achieved Control	20.7 %	17.3 %	28.6 %	22.4 %
Injuries Due to Abuse				
Minor Injury	32.1 %	68.7 %	32.1 %	43.5 %
Moderate Injury	18.4 %	10.9 %	18.7 %	16.2 %
Severe Injury	9.5 %	14.6 %	13.7 %	12.8 %

Footnote: Data are weighted using domestic violence weight. Pooled total proportions are weighted with each survey/country contributing equally. (Weighted sample sizes for DV items for each country are: Kenya 4023; Uganda 1588; Tanzania: 7102)

Physical, emotional, and sexual abuse victimization.

In total, just over one-third of all women reported experiencing at least one

instance of either emotional, physical, or sexual abuse in the last 12 months. Compared

to women in Kenya (33%), a higher proportion of women in Tanzania (38%) and Uganda

(43%) reported abusive experiences. This pattern of women in Kenya reporting the lowest incidences of violence and women in Uganda reporting the highest incidences was replicated across the violence measures, with the largest differences ranging from 5.2% to 14.2% (differences range from < 1% to 14.2%). The largest cross-country differences were found in the proportion of women who experienced emotional and/or sexual IPV. Of the three sexual IPV items (see Table 3.2a: Detailed IPV Characteristics in Appendix B) the item *physically forced into unwanted sex* was reported most in all three countries, with country-level differences at 9.4%. Although more women in Uganda reported experiencing sexual and emotional IPV compared to women in Kenya and Tanzania, women in the latter two countries reported similar experiences of these types of IPV (differences < 1% to 4%).

The most frequently reported type of abuse was less severe physical abuse, which ranged from 36% (Kenya) to 41% (Uganda). Of this type, being slapped was the most commonly reported across countries (18-24%). Emotional abuse constituted the second most frequent type of abuse, with just under one third (28%) of all women reporting at least one instance of emotional abuse. The most frequently experienced instance of emotional abuse was being insulted and/or made to feel bad by one's partner. The next most frequently reported type of abuse for women in Kenya and Tanzania was severe physical abuse, followed by sexual abuse, whereas women in Uganda reported experiencing sexual abuse more frequently than severe physical abuse. Approximately 17% of women in Kenya and Tanzania and 22% of women in Uganda reported experiencing at least one type of severe physical abuse in the past 12

months, most commonly being kicked or dragged, which was reported by 10% of

women across the countries. In terms of sexual abuse, approximately 13% of women in

Kenya and Tanzania, and 28% of women in Uganda reported experiencing at least one

instance of sexual abuse.

More women in Uganda reported experiencing emotional abuse, less severe

physical abuse, severe physical abuse, and sexual abuse than women in both Tanzania

and Kenya. While these differences were statistically significant (Table 3.2b and Table

3.2c in Appendix B), the relationships were negligible to weak ($\varphi = 0.02 - 0.17$). The

abusive experiences of women in Kenya and Tanzania were similar. Although more

Tanzanian women reported experiencing at least one instance of each type of abuse

than women in Kenya, the differences between these two countries ranged from less

than 1% to 4% for the composite measures and less than 1% to 7% for the individual

items. So, while it is evident that a higher proportion of women in Uganda compared to

women in Kenya and Tanzania reported experiencing the different types of abusive

experiences, and most notability sexual abuse, the differences are weak, suggesting

women's experiences of abuse are on average similar in all three countries.

Fear.

Fear of one's partner was a common experience among women in this sample

(36%—50%) and followed the same pattern as physical and sexual abuse, with the

lowest proportion of women reporting fear in Kenya, and the highest in Uganda;

however, these differences were also negligible to weak ($p < 0.01$, $\varphi = 0.05 - 0.14$).

Although nearly a third of women who did not report any experiences of abuse reported

being fearful of their partners (31%), fear was significantly ($p < 0.01$) more likely to be reported by women who experienced abuse (61%) (not in table).

Control.

More than two-thirds of women reported experiencing controlling behaviours by their husbands/partners, and one-fifth of women reported their husband had achieved control over them by limiting their ability to meet with their female friends. Of the specific control items, the most common form of control experienced by women (53%—61%) was that their husbands got jealous if they talked to other men. Having a husband/partner who insists on knowing where his wife/partner is at all times was also a common occurrence (41%—57%) and being accused of being unfaithful was reported by just over one-quarter of all women. Having a husband/partner who tries to limit a wife's contact with her own family was the least commonly reported (12%—20%) experience of control, similar to the measure of achieved control (husband/partner does not permit you to meet female friends), which was reported by 17% to 28% of women. Taken together, these findings suggest that for women in each of these countries, control by their husbands is common and pervasive. Examining these items more closely for women who reported at least one instance of emotional, physical, and/or sexual abuse (38% of the pooled sample), these proportions rise substantially (not reported in the table). More than eight out of every ten women who have experienced abuse (84%—88%) reported that their husband engages in controlling behaviours. Having experienced abuse by one's husband/partner in the previous 12 months was significantly, positively and moderately related to having a husband who engages in

controlling behaviours ($p < 0.001$; $\varphi = 0.261$). While 61% of women who did not

experience abuse reported that their husbands engaged in controlling behaviours, 86%

of women who experienced abuse reported that their husbands were controlling.

Achieved control was similar, where only 13% of women who did not experience abuse

reported that their husband had prevented them from meeting with their female

friends, 31% of those who experienced abuse reported the same.

Injuries.

The proportion of women experiencing injuries was similar among women in

Kenya and Uganda, with just under one-third of women reporting minor injuries, just

under one-fifth of women reporting moderate injuries, and approximately 10% of

Kenyan women and 14% of Ugandan women reporting severe injuries. For women in

Tanzania, however, almost 70% reported experiencing minor injuries, a proportion more

than double that found among women in Kenya and Uganda. This finding was

statistically significant, and its strength was moderate, as women in Tanzania were

significantly more likely than women in Kenya or Uganda to report experiencing minor

injuries ($\varphi = 0.36$). While other country-level differences were evident based on the

proportion of women who reported experiencing moderate or severe injuries, the

relationships were weak ($\varphi = 0.07 - 0.10$) and did not reach the threshold of 0.20-0.40

for a moderate relationship (Rea & Parker, 1992, p. 203). Examining injuries based on

the severity of physical abuse (not in table), results are as expected, with injuries

reported at a higher rate among those who are experiencing severe physical abuse

compared to those who are experiencing less severe physical abuse. This was the case

for more minor injuries like bruises (47% vs. 63%), moderate injuries like eye injuries,

sprains, dislocations and/or burns (18% vs. 29%), as well as severe injuries like wounds,

broken bones, broken teeth, or other serious injuries (14% vs. 24%).

While these findings are diverse, the most common experience across countries

is controlling behaviours. Less severe physical abuse was the next most common,

followed by emotional abuse, and more severe physical or sexual abuse. While findings

from the literature in the West report higher rates of emotional or verbal abuse than

forms of physical abuse (Ansara, 2009; Burczycka, 2014), for women in these countries,

experiences differed. Higher proportions of women reported physical abuse than

emotional abuse. Other researchers using DHS data have also reported physical IPV to

have the highest prevalence (Ahinkorah, Dickson, & Seidu, 2018; Bazargan-Hejazi et al.,

2013), highlighting a key distinction in findings cross-culturally.

To profile IPV experiences in more depth, examinations of IPV experiences based

on three key sociodemographic characteristics (e.g., education level, earnings relative to

husband, and asset ownership) were explored. Pooled frequencies and measures of

association are reported in Table 3.3.

Examining abuse experiences by characteristics of the sample (Table 3.3)

suggests that while most of the relationships were statistically significant, in only three

instances (all relationships with education level) did the strength of the relationship

meet minimum thresholds (>0.10) to be considered at least a weak relationship (Rea &

Parker, 1992, p. 203). Nevertheless, trends are illustrative and informative.

Table 3.3: Violence Experiences by Status Sociodemographic Characteristics

	Emotional Abuse	Less Severe Physical Abuse	Severe Physical Abuse	Sexual Abuse	Fear	Control	Acheived Control
Pooled Sample: Kenya, Tanzania, & Uganda							
< Sec. edu	29.8%	41.6%	21.2%	14.3%	46.8 %	70.9%	22.2%
≥ Sec. edu	22.3%	29.3%	11.7%	19.6%	32.4 %	69.0%	23.1%
	φ =.07	φ = .11	φ = .10	φ = -.06	φ= .12		
No Assets	27.1%	35.1%	18.7%	18.0%	40.1 %	71.6%	24.6%
Assets	28.5%	40.9%	19.1%	18.6%	45.4 %	69.7%	21.0%
	φ = .01	φ = .06			φ= .05	φ= -.02	φ= -.04
Earns $ ≤ husband	29.4%	34.5%	16.1%	16.6%	38.3%	66.3%	19.0%
Earns $ ≥ husband	27.8%	39.2%	19.3%	18.6%	44.0%	71.0%	22.8%
		φ= -.03	φ= -.03	φ= -.02	φ= -.04	φ= -.03	φ= -.03

Footnote: Measures of association are provided when relationships are statistically significant (p≤0.05).

Patterns show that compared to women with at least secondary school education, more women with less than secondary school education reported experiencing emotional abuse, less severe physical abuse, severe physical abuse, and fear. For sexual abuse, this relationship is the opposite, with a higher portion of women having at least secondary school reporting compared to those with less education. Almost an equal proportion of women reported experiencing control, independent of their education level. In terms of asset ownership and financial earnings, abusive experiences were reported by a higher proportion of women who own assets (alone or jointly), and women who earn equal to or higher income than their husbands. A lower proportion of women who own assets (compared to those who don't) reported controlling behaviours and achieved control. However, these differences in reported proportions of control were weak and minimal (2%-4%). Thus, while overall trends

suggest that emotional abuse, physical abuse, and fear are less prevalent among those with higher education, the inverse relationship was found for sexual abuse, and among those who have financial earnings and asset ownership. Nevertheless, asset ownership appears to be negatively related to controlling experiences, albeit very weakly. These trends suggest that although some minor differences are apparent, experiences of abuse, control, and fear, are similar, despite access to formal education, relative financial earnings, and asset ownership.

Discussion

Although Kenya, Tanzania, and Uganda represent relatively non-violent countries compared to some other areas in Africa (e.g., Somalia, Sudan) (Bello-Schunemann & Moyer, 2018; Jakobsen, 2014), IPV in the form of emotional, physical, and/or sexual abuse is commonplace for at least one third of women. Women are not only subjected to these forms of abuse, but they are also subjected to control by their husbands/partners, with up to three-quarters of women reporting controlling experiences. This finding highlights the pervasive nature of control by husbands/partners. Although controlling behaviours were more common among those also experiencing abuse, greater than 60% of women who were not experiencing abuse were experiencing control. Similarly, women did not have to be experiencing abuse to report being fearful of their husband/partner. As Yodanis (2004) has indicated, merely knowing about violence against other women is enough to contribute to a culture of violence which secures men's status as superior. Nevertheless, experiencing control was not always correlated with being fearful, as women who were experiencing controlling

behaviours by their husbands were just as likely to report being fearful as not being

fearful (50%), suggesting that controlling behaviours do not necessarily go hand in hand

with fear. Fear was more common among those experiencing achieved control, with

two-thirds reporting being fearful compared to only one-third of women who

experienced achieved control but were not fearful of their husbands. So, while control is

often experienced along with other abusive experiences, it appears to be a common

feature or characteristic of the relationship dynamics between women in this sample

and their partners. That is, control (as measured in the DHS) is not necessarily

characteristic of violence or abusive relationships per se, but is consistent with the

prevailing gender norms and beliefs that husbands are expected to be in complete

control of their wives and their households at all times (Adjei, 2012; Bingeheimer, 2010;

Cubbins et al., 2014; Koenig et al., 2003).

Less severe physical abuse, followed by emotional abuse, were the most

common types of abuse reported by women in all three countries. Half of the women

who experienced less severe physical abuse also reported experiencing severe physical

abuse. While cross country differences were evident in terms of the proportion of

women experiencing sexual abuse (<1% to 14%), across countries, there was less than

8% variation in the proportion of women experiencing all other types of abuse. Patterns

show that women in Uganda reported the highest rates of all types of abuse, whereas

women in Tanzania and Kenya reported similar (lower) rates of IPV types. Higher

proportions of women experiencing abuse, and particularly of sexual abuse among

women in Uganda (compared to women in Kenya and Tanzania), may be related to the

demographic differences between countries. For instance, despite geographical and demographic similarities, compared to Kenya and Tanzania, Uganda has a higher rural population and a higher proportion of women living in polygynous relationships. Both of these have been identified as related to higher abuse prevalence (Antai & Antai, 2008; Djamba & Kimuna, 2008; McCloskey et al., 2005). Nevertheless, trends across countries are similar, and differences are statistically weak to negligible in most cases (see: Tables 3.2a and 3.2b in Appendix), suggesting that an examination of these women's experiences across these countries is warranted.

Patriarchal norms, values, and behaviours both perpetuate and reinforce the conditions in which women experience control and or abuse, and the conditions in which more minor forms of abuse that are not severe enough to cause injury or impact women's daily roles are normalized, functional, and expected (Bowman, 2003; Ilika, 2005; Jakobsen, 2014). The measures (and items within measures) of less severe and severe physical abuse may be capturing distinctions between "good beatings" and "bad beatings," acceptable and unacceptable forms of violence. The relatively high prevalence of less severe physical abuse compared to severe physical, emotional, and or sexual abuse (at least 10% higher than other types of IPV) suggests that less severe forms of abuse (e.g., slapping) may characterize more acceptable forms punishment that are enacted to exhibit masculinity, and to correct women's failure to perform femininity via prescribed gender roles (Adjei, 2015; Bowman, 2003; Heise, Ellsberg, & Gottmoeller, 2002; Ilika, 2005; Jakobsen, 2014; Kameri-Mbote, 2000; McCloskey et al., 2016; National Research Council, 2015). Higher prevalence of less severe physical abuse

and control compared to other forms of abuse (e.g., sexual abuse, severe physical abuse, sexual abuse) suggest that these experiences are normalized within the context of the current gender norms and beliefs in these countries.

Taken together, the results of this analysis highlight the pervasive nature of control and abuse for women throughout this region of sub-Saharan Africa. The high prevalence of controlling behaviours (70%+) and physical abuse experiences underscore the differences in patterns or profiles of IPV in sub-Saharan Africa relative to the West, emphasizing the importance of context-specific approaches, and approaching the problem of IPV in East Africa "through an East African lens" (National Research Council, 2015).

<div align="center">

Limitations

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Limitations of this research relate to the data, methods, and interpretation of results. DHS data are cross-sectional, based on cluster sampling, and include sampling weights to ensure the estimates are reflective of the population. For this analysis, three different countries, sampled at different time periods, were pooled into one large dataset. As such, while these experiences are reflective of the women sampled, there is no actual 'population' which these data resemble. Instead, pooled results represent a descriptive approximation of the collective abuse experiences among women in this regional subgroup. So, while individual-level sampling weights were used to produce nationally representative estimates within each country (see country-specific proportions in Tables 3.1 and 3.2 above), for pooled estimates, each country was given equal weight regardless of population size to ensure the experiences of women in all

three countries contributed equally to the pooled estimates. Therefore, while these pooled findings must be interpreted with some caution, they provide a descriptive approximation of control and abuse experiences among women in this area of eastern sub-Saharan Africa.

Other limitations of this analysis include the fact data are reliant on self-report and subject to memory and willingness to disclose, possibly resulting in the underreporting of abuse experiences. However, as Kishor and Johnson (2005) have indicated, the idea that shame is associated with abusive experiences and thus results in underreporting is an assumption, and they found no studies that identified domestic violence as a shameful or embarrassing topic cross-culturally. Moreover, assessments of abuse are restricted solely to the questions on the DHS (10 items for physical and sexual abuse, three items for emotional abuse, and five items for controlling behaviours). While the physical and sexual abuse items have been standardized, tested, and updated to ensure their validity and cross-country equivalency in respondent interpretation (Kishor & Johnson, 2004; Kishor, 2005; Macquarrie, Winter, & Kishor, 2014), they have been criticized for failing to account for the context, severity, and motivation behind the abuse experience. Moreover, the items measuring emotional abuse may be more subjective or not as applicable in different cultural settings (Kishor, 2005). For instance, while responding to the physical and sexual abuse items does not require women to label the behaviour as abusive, the emotional abuse items require some element of interpretation, especially when it comes to acknowledging "humiliating" or "insulting" experiences (Macquarrie, Winter, & Kishor, 2014). These subjective interpretations

could be why emotional abuse is not reported in as high proportions as evidenced in the

literature in the West. Despite these limitations, however, findings are illustrative of the

experiences among women in this region of eastern sub-Saharan Africa.

Conclusion

As Fulu and Heise observed, violence against women is preventable, but we

"need to understand the scale, scope and nature of the problem" in order to develop

effective policies and interventions (2014, p.5). By examining the experiences of IPV

among women in Kenya, Tanzania, and Uganda, a common profile of IPV experiences is

described. While some minor differences in abuse experiences across countries

(especially in relation to sexual abuse), and characteristics of women's status (e.g.,

access to formal education, the market economy, and asset ownership) are evident,

support was found for looking at all three countries collectively as a regional subgroup.

Experiences of abuse, control, and fear are similar across countries and levels of

education, relative financial earnings, and asset ownership. Controlling behaviours,

followed by less severe forms of physical abuse, and fear, were reported by the highest

proportion of women, including by women who reported having lower levels of

education (i.e., less than secondary school), financial earnings higher than or equal to

their husbands and among those who report asset ownership. Control is a pervasive

aspect of life for these women and characterizes the 'typical' or 'normal' gendered

nature of relationship dynamics, independent of women's status. That women who

reported having sole or joint asset ownership and women who reported financial

earnings equal to or greater than their husbands reported controlling behaviours and

achieved control at slightly higher rates than those who earned less income than their

husbands and who didn't own assets, gives weight to the importance of digging deeper

into understanding relationship dynamics and how they are related to control and other

experiences of abuse. These findings emphasize the need for policies and interventions

to recognize the pervasive nature of control and abuse, and the need to address

violence within the context of relationship dynamics and the multi-level social,

economic, and political contexts that impact these dynamics. This analysis sets the stage

for future research to examine IPV experiences collectively among this subgroup, to

explore in more depth the patterns, correlates, and outcomes of IPV, with the goal of

identifying context-specific prevention and intervention, approaches.

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CHAPTER 4 : EXPLORING DIVERSITY IN PATTERNS OF INTIMATE PARTNER VIOLENCE IN

SUB-SAHARAN AFRICA: A LATENT CLASS ANALYSIS

Intimate partner violence (IPV) refers to a pattern of physical, sexual, and/or

emotional violence, including stalking, psychological aggression, and control by current

or former intimate partners (Burczycka, 2016; CDC, 2015; Tjaden & Thoennes, 2000a,

2000b; WHO, 2012). Representing a pervasive global health issue, IPV has been

identified as having far-reaching social, economic, and health impacts on individuals and

communities (Sinha, 2013; WHO, 2010; Zhang, Hoddenbagh, McDonald, & Scrim, 2012).

Research has demonstrated that IPV can result in physical injuries, emotional and/or

psychological trauma, increased risk of HIV and other sexually transmitted infections,

and poor health and well-being for women and their children (Amhed et al., 2006; Chai

et al., 2016; Dillon, Hussain, Loxton, & Rahman, 2013; Devries et al., 2013; Dunkle et al.,

2004; Ellsberg et al., 2008; Kameri-Mbote, 2000; WHO, 2013). Worldwide,

approximately one-third of women have been physically and/or sexually assaulted by an

intimate partner in their lifetime (Fulu & Heise, 2015; WHO, 2013), with some of the

highest rates of IPV in areas of sub-Saharan Africa (McCloskey et al., 2016; WHO, 2013).

Obscured by these statistics however, are that victims experience diverse forms of IPV

(Davies, Ford-Gilboe, Willson, Varcoe, Wuest, Campbell, & Scott-Storey, 2015; Smith,

Thornton, DeVellis, Earp, & Coker, 2002; Sullivan, Cavanaugh, Buckner, & Edmondson,

2009; WHO, 2001).

Research has tended to oversimplify IPV viewing it as unitary rather than

multifaceted; thereby, limiting understanding of the different types or variations of

intimate partner violence (Cavanaugh et al., 2009; Grych & Hamby, 2014). These

limitations in understanding are problematic, because identifying distinctions in the

types or patterns of IPV represents a necessary step in maximizing the effectiveness of

policies, practices, and interventions that are designed to prevent and respond to IPV

(Johnson, 1995; Kelly & Johnson, 2008). Using Demographic and Health Survey (DHS)

data from three countries in eastern sub-Saharan Africa (Kenya, Tanzania, and Uganda),

this research uses latent class analysis (LCA) to explore whether women experience

different and distinctive forms or patterns of IPV, and to profile these patterns. By

focusing specifically on three geographically connected countries in eastern sub-Saharan

Africa that share certain historical and political characteristics, this research can help

contribute to our knowledge and understanding of the heterogeneity and diversity of

IPV experiences and can help inform the development of regionally relevant

understanding and interventions.

Setting the Stage: Context for IPV Victimization

Given the immense differences between the North American and African

contexts, it is questionable whether the approaches, theories, and interventions

developed out of culturally and geographically specific norms and ways of

conceptualizing and addressing violence against women in the western world[8] are

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[8] While there are multiple terms used to reference different world regions (e.g., global north/global south, developed/developing, high-income/low-income, western/non-western), for simplicity, the terms "west" "western" or "global west" are used interchangeably throughout this paper to refer to wealthier global regions including Europe, the Americas, Australia, and New Zealand.

relevant to experiences in Africa (Bowman, 2003; Goodmark, 2015; Olayanju, Naguib, Nguyen, Bali, & Bung, 2013). Post-colonial researchers, feminists, and African scholars from the diaspora have stressed that it is crucial to look to the colonial period in order to understand the meaning, quality, and historical continuation of domestic violence in Africa (Allman, Geiger, & Musisi, 2002; Ampofo, Beoku-Betts, Njambi, & Osirim, 2004; Burrill, Roberts, & Thornberry, 2010; Connell, 2015; Fallon, 2008; Hall, 2015; Oyewumi, 2011; Steady, 2005; Swart, 2017; Wilson, 2015). In fact, as Mama (2011) has stressed, to study social conditions and experiences such as violence, research must be "attuned to local contexts, gender struggles and challenges" (Mama, 2011, p. e18).

While a detailed account of the processes of colonialism and its impacts on everyday life for women in sub-Saharan Africa is beyond the purview of this analysis, other researchers have documented their impacts in detail (see for example: Akyeampong & Fofack, 2012; Allman, Geiger, & Musisi, 2002; Engilbertsdottier, 2011). Through the imposition of colonial boundaries (based on ethnic, religious, and geographical lines), administrative institutions, and economic, political, and social policies and norms that emphasized and encouraged distinct gendered roles (Berger, 2014; Burrill, Roberts, & Thornberry, 2010; Fallon, 2008; Hall, 2015; Musandu, 2012), women's place in society was reconfigured, men were placed in positions of power over women (De Haas & Frankema, 2018), and pre-colonial societies were restructured (O'Ndege, 2009). Women's role became restricted to the household, taking care of children and family and men's role was in formal education, politics, and the market economy (Fallon, 2008; Thomson, Bah, Rubanzan, & Mutesa, 2015). Under colonial rule,

women were severely restricted, marginalized, and excluded from formal systems of

education, politics, economics, and social life (Aulette, 2009; Akin-Aina, 2011; Burrill,

Roberts, & Thornberry, 2010; De Haas & Frankema, 2018; Fallon, 2008; Musandu, 2012),

resulting in a "reconfiguration of gender inequality" (De Haas & Frankema, 2018) that

continues to maintain male dominance over women (Oyewumi, 2011). Restrictions

placed on women's rights, laws, and participation in politics and public life in the

colonial era did not change much with independence as colonialism was typically

replaced by other authoritative regimes that continued to maintain and reinforce these

patterns of marginalizing women (Aulette, 2009; Fallon, 2008; Mwatha, 2015).

Pre-existing norms and the norms and systems imposed via British colonial rule

in Kenya, Tanzania, and Uganda reinforced and transformed each other (De Haas &

Frankema, 2018, Schmidt, 1991) resulting in a pervasive system of cultural norms that

emphasize male superiority over females (Jakobsen, 2014; Jayachandran, 2015; Kimuna,

Tenkorang, & Djamba, 2018; Svenkeson, 2018). Wives are expected to obey their

husbands and act submissive, while husbands are expected to hold power and be in

control over their wives and households (Adjei, 2012; Bingeheimer, 2010; Cubbins et al.,

2014; Jakobsen, 2014; Swart, 2017). Gender norms and roles that endorse male

authority, power, and dominance, and female submissiveness and compliance including

in the sexual domain are associated with the belief that violence is an acceptable

method for controlling an erring wife (Maldonado, Watkins, & Dilillo, 2015; Ritzel-Jaffe

& Wolfe, 2001) and ensuring that she adheres to the expected gender norms (Adjei,

2015; Allen & Devitt, 2012; Fidan, 2017; Hajjar, 2004; Haj-Yahia, 2003), especially if she

is perceived as intentionally violating prescribed behavioural norms (Tsai et al., 2017).

However, a distinction is made between acceptable and unacceptable levels of physical

punishment, termed "good beatings" and "bad beatings" by Jakobsen (2014). While a

"good beating" is a justified husband-to-wife beating that serves a social purpose and

does not impose excessive physical harm, a "bad beating" involves excessive force and

injury, has no social purpose, and impacts a wife's ability to work (Jakobsen, 2014).

While there is consensus that a "bad beating" is unacceptable and excessive, the less

severe "good beatings" are not only acceptable, but are supported and expected when

women do not meet gender norm expectations and need their husbands to correct their

erring ways (Adjei, 2015; Burrill, Roberts, & Thornberry, 2010; Heise, Ellsberg, &

Gottmoeller, 2002; National Research Council, 2015). Less severe forms of abuse (i.e.,

Jakobsen's (2014) notion of "good beatings") are often even conflated with love and

affection (Ilika, 2015), highlighting the complex role of violence and its interconnections

with gender role expectations in relationships. These gender norms and their impacts on

social organization and structuring set the stage and characterize the context in which

IPV perpetration and victimization takes place.

Theoretical and Methodological Influences

Characteristics of Intimate Partner Violence

The theoretical, methodological, and practical knowledge and developments

made by researchers studying IPV from a wide variety of perspectives and contexts (e.g.,

feminist frameworks, family violence frameworks, integrative frameworks, post-colonial

frameworks, epidemiological approaches, health frameworks, etc.) are instrumental to

our understanding of IPV. Research emerging from these perspectives has led to a

robust body of knowledge on the characteristics, epidemiology, prevalence, and

seriousness of IPV (Burczycka, 2016; Davies et al., 2015; Nurius & Macy, 2008; Sinha,

2013; Tjaden & Thoennes, 2000a, 2000b). Given global diversities in cultures, histories,

and social systems it is not surprising that research into the characteristics of and factors

related to IPV produces diverse and seemingly discrepant results (Fulu & Heise, 2015).

For example, in the North American literature, a substantial body of research has

documented patterns of IPV characterized by relatively minor instances of physical

and/or emotional violence perpetrated by both males and females and explained as a

"normal" response to stress, conflict, or frustration (Dutton, 1995; Lysova, Dim, &

Dutton, 2019; Straus & Smith, 1990; Straus, 1990; Straus & Gelles, 1986; Steinmetz,

1978). In seeming contrast, an equally abundant body of research has identified and

reported on IPV experiences characterized by a pattern of pervasive physical, emotional,

and sexual violence perpetrated predominantly by men, rooted in patriarchy, and fueled

by objectives of control over female partners (Dobash & Dobash, 1979; Kurz, 1989; Yllo,

1993). The former, less severe pattern of IPV is typically reported in research that

utilizes population-based surveys that measure discrete forms of physical and/or sexual

contact, resulting in conclusions that support a gender symmetry perspective where

both men and women are perpetrators of IPV. The latter, more severe pattern of IPV is

most often uncovered in research using samples of victims (predominantly females)

who have attended shelters, police stations, or other services, resulting in patterns of

IPV that support a gender asymmetry perspective where IPV is perpetrated almost

exclusively by men (Fulu & Heise, 2015; Johnson, 1995; Lawson, 2012). However, as initially articulated by Johnson (1995), the primary differences in findings on the nature of IPV (e.g., gender symmetry/ asymmetry, the severity of and motivations for violence) can be accounted for in the use of different methodological approaches and samples (see Johnson, 1995; Johnson & Kelly 2007).

In response to these apparent differences, integrative approaches like Johnson's (1995) typology of IPV (see also: Ansara & Hindin, 2010; Cavanaugh et al., 2012; Kelly & Johnson, 2008) have been used to situate findings from multiple perspectives into a broader context of IPV. They have contributed to identifying diverse patterns of IPV experiences (Ansara, 2009; Ansara & Hindin, 2010; Cavanaugh et al., 2012; Johnson, 1995; Kelly & Johnson, 2008; Nurius & Macy, 2008; Gulliver & Fanslow, 2015) and have concluded that IPV cannot be viewed as a monolithic, homogenous construct, but should be viewed instead as multi-faceted, heterogeneous, and complex (Hardesty, et al., 2015).

Variable-Centered Approaches & Person-Centered Approaches to Studying IPV

In addition to the impact of the theoretical perspectives described above, the methodological trends in the IPV literature also impact the conceptualization of IPV and of different types or patterns of IPV. Much of the IPV research is based on variable-centred research (Davies et al., 2015; Nurius & Macy, 2010). Variable-centred approaches use multivariate regression or structural equation modelling techniques that assume that samples are relatively homogenous and associations among variables are similar for everyone in the population (Masyn, 2013; Nurius & Macy, 2010). In other

words, IPV is treated as a singular experience, possibly with different degrees or severity. The identification of different types of IPV is not accounted for in the analyses. In contrast, person-centred approaches such as latent class analysis and cluster analysis (Nurius & Macy, 2010; Masyn, 2013) account for similarities and differences among individuals by categorizing them based on the patterns of association among the variables (Masyn, 2013). Thus, whereas variable-centred approaches focus on variations among violence variables, person-centred approaches focus on identifying classes or subgroups of individuals with similar patterns or experiences of violence.

Although findings from variable-centred approaches are essential to understanding IPV and recognizing the diversity in how it affects individuals, taking a strictly variable-centred approach to study IPV does not allow for an in-depth understanding of different types or classes/subgroups. By acknowledging and assessing heterogeneity in the lives of individuals (Davies et al., 2015), LCA is a methodological approach that can help guide and tailor the development of community and service responses to different IPV experiences (Collins, Murphy, & Bierman, 2004). It can thus be used to translate knowledge into practice by informing policy and decision-making regarding resources, policies, and programs (Ansara & Hindin, 2010). More specifically, by utilizing LCA to examine the diversity of IPV experiences among women in eastern sub-Saharan Africa, these findings can facilitate knowledge about the different types of IPV that women are experiencing, and can help provide a context to assist with the development of appropriate screening and intervention efforts tailored to specific experiences of victims (Ansara, 2009; Carbone-Lopez, Kruttschnitt, & Macmillan, 2006).

Latent Class Analysis: A person-centered approach to studying IPV.

Latent class analysis (LCA), a type of mixture modelling, is a person-centred approach to examining differences in IPV (Davies et al., 2015; Nurius & Macy, 2010). Intimate partner violence, like many other constructs in the social sciences, is best understood as a latent variable that is not directly observed but instead requires inferences from multiple observations (Eshghi et al., 2011; Goodman, 1974; Lanza et al., 2007). That is, IPV is comprised of a wide array of possible experiences that are not captured by one observable variable. Latent class analysis provides a framework and methodological approach to measure and assess categorical latent variables by dividing the population into "mutually exclusive and exhaustive subgroups" (Lanza et al., 2007, p. 671). More specifically, LCA uses a series of observed data known as indicators to identify homogenous patterns or classes of a latent, unobservable construct. For this research, the latent construct is IPV, and the indicators are the different elements of violence.

In LCA, individuals with similar response patterns on indicator variables are classified into the same class or type of violence (Cavanaugh et al., 2012). The goal is to group individuals into like categories or classes and distinguish them from individuals in other categories or classes (Muthen & Muthen, 2000). Latent classes, therefore, are intended to "capture qualitatively distinct forms of individual differences that could not be adequately represented by a single homogenous population distribution" (Nylund-Gibson & Masyn, 2016, p. 782). Understanding violence against women, and more specifically IPV, as comprised of distinct types or classes of violence, helps situate and

synthesize the approaches and findings from multiple orientations to studying IPV. Although other person-centered clustering methods are available, as Gelbard, Goldman, and Spiegler (2007) found in their empirical comparison of various methods, "non-hierarchical methods [such as LCA] typically performed better than the hierarchical methods" (Eshghi et al., p. 275). Thus, LCA represents an ideal data analytic approach to studying IPV (Cavanaugh et al., 2012).

For these analyses, indicator variables were derived from the work of researchers studying IPV from diverse perspectives (e.g., feminist frameworks/gender asymmetry approach, family violence approaches/gender symmetry approach, and integrative approaches). This body of work has defined and identified characteristics of abuse in intimate relationships, including various types of physical abuse, sexual abuse, psychological or emotional abuse, fear, and/or measures of control. Using the indicator variables gleaned from the literature (and what is available in the DHS domestic violence module) and LCA as an exploratory methodological tool, this research assesses whether there are underlying types or classes of IPV among a sample of women in an area in eastern sub-Saharan Africa.

Despite having one of the highest rates of IPV globally, Olayanju and colleagues (2013) stress that Africa has fewer research studies on IPV compared with the rest of the world. Our understanding of IPV in sub-Saharan Africa is limited, especially concerning the potential diversity or distinctions in types of IPV. There is also a dearth of research exploring how theories or explanations for violence developed elsewhere can help to explain or account for the nature and prevalence of violence in Africa (Bowman,

2003; Goodmark, 2015; Olayanju et al., 2013). The bulk of IPV literature is rooted in research that is based on North American data and predominantly utilizes variable-centered approaches. Latent class analysis (LCA) using data from three countries in sub-Saharan Africa—Kenya, Tanzania, and Uganda—will add to our knowledge about IPV experiences of women in a region with a high prevalence of IPV and a paucity of research. This research is guided by the following research questions:

RQ_1: Are there different underlying types of violence against women? In other words, is there a latent class structure that adequately represents the heterogeneity in violence against women in this sample?

RQ_2: If so, what are the types, what characteristics describe them, and what types are most prevalent?

RQ_3: Is the measurement of IPV types in latent classes invariant across location? In other words, does the same class structure for the IPV classes hold for women in Kenya, Tanzania, and Uganda?

Methods

Data and Sampling

The 2014 Kenyan, 2015 Tanzanian, and 2011 Ugandan Demographic and Health Survey (DHS) data were used for this analysis. These surveys were the most recently available surveys at the time of this analysis. The DHS survey is a cross-sectional in-person structured interview that is conducted approximately every five years. Details of the two-stage cluster sampling design and procedures are reported in the official 2014 Kenyan (KDHS, 2014), 2011 Ugandan (UDHS, 2011), and the 2015 Tanzanian (TDHS,

2015) DHS reports. The study used data from women who were ever married and completed the domestic violence module, resulting in a total unweighted sample size of 13,821 women across the three countries (Kenya=4,519 women; Tanzania=7,597; Uganda=1,705).[9] The survey was administered in accordance with the World Health Organization's (WHO) ethical and safety recommendations for conducting research on domestic violence (Emery, 2011; Kishor & Johnson, 2004).

Measures

To maximize the number of abuse variables in this analysis, three groups of variables were used: (1) measures of physical and sexual violence; (2) measures of emotional/psychological violence; and (3) measures of injury resulting from violence to test the construct validity of the final LCA model. All measures were recoded into binary items for use in the LCA model.

Physical and sexual abuse.

The DHS domestic violence module uses a modified version of the conflict tactics scale (CTS) (Straus, 1979). The modified CTS items ask respondents whether they have experienced any of 10 acts which are typically grouped into less severe physical violence, severe physical violence, and sexual violence (KDHS, 2015; UDHS, 2012; TDHS, 2016). For all physical and sexual abuse items, respondents were asked if they had ever experienced the abuse item and, if so, how frequently they experienced that violence

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[9] Reported N's are unweighted. Analyses were weighted using individual weight for sociodemographic variables, and domestic violence weight for the violence items.

item in the past 12 months. Responses to all items were recoded so that those who

indicated they experienced the abuse item at least once in the last 12 months were

coded as 1, and those who did not experience the abuse item in the past 12 months

were coded as 0. The timeframe of 12 months was chosen to minimize recall bias while

providing a duration of time in which the diversity of individual experiences could be

captured.

Less severe physical violence/abuse includes ever: pushed, shook, or had

something thrown at them by husband/partner; slapped by husband/partner; punched

with fist or hit with something harmful by husband/partner; or had arm twisted or hair

pulled by husband or partner. *Severe physical violence/abuse* includes ever: kicked or

dragged by husband/partner; strangled or burnt by husband/partner; or threatened

with knife/gun or other weapon by their husband/partner. *Sexual abuse* includes ever:

physically forced into unwanted sex by husband/partner; forced into other unwanted

sexual acts by husband/partner; or physically forced to perform sexual acts the

respondent didn't want to.

Psychological violence/abuse.

The DHS also includes measures of emotional violence, control, and fear which

have been identified in the literature as integral aspects of IPV (Dobash & Dobash 1979;

2004; Kurz, 1989; Wester, 2009) with some researchers identifying distinct categories of

control, for instance, in the absence of physical abuse (Macquarrie, Winter, & Kishor,

2014).

Emotional abuse.

Three questions assessed experiences of emotional abuse, by asking whether the woman's husband or partner: humiliated her, threatened to harm or hurt someone she cares about, or insulted her to make her feel bad. Responses for each of these were recoded so that those who endorsed experiencing the item within the past 12 months were coded as 1, and those who did not were coded as 0.

Controlling behaviour.

Men's attempts to control their female partners is a form of psychological abuse that is measured with four items asking whether a woman's partner/husband: gets jealous if/when she talks to other men; tries to limit her contact with family; has accused her of unfaithfulness; or insists on knowing where she is at all times. Consistent with previous research that utilized composite binary items to measure control (Antai & Adaji, 2012; Benebo et al., 2018), if respondents answered yes to any of these four items they were coded as having experienced controlling behaviours/attitudes by their partners [1], and those who did not endorse any of these items were coded [0]. *Achieved control* was measured with one item that asked whether one's husband/partner does not permit her to meet female friends, response options were recoded so that 1 = yes and 0 = no. The distinctions between controlling behaviours and achieved control were made on the basis of the criticism that many researchers do not account for potential differences in experiences of control (Emery, 2011; Gulliver & Fanslow, 2015), with findings suggesting that marital control may be best viewed as two concepts—suspicion and isolation (Macquarrie, Winter, & Kishor, 2014).

Fear.

A single item was used to measure fear. This item asked women if they were ever fearful of their partner. Response options of most of the time afraid, sometimes afraid, and never afraid were dichotomized so 0 = [no], and 1 = yes [most of the time and sometimes].

Injury.

Items assessing injuries in the aftermath of abuse were divided in the DHS based on severity. If an item was endorsed, it was coded as 1, while items not endorsed were coded as 0. *Less serious/minor injury* was measured with an item asking whether a woman ever had any bruises as a result of her husband's actions. *Moderately severe injury* was measured with an item asking whether a woman ever had eye injuries, sprains, dislocations or burns because of her husband's actions. *Severe injury* was measured with an item asking whether a woman ever had wounds, broken bones, broken teeth, or other serious injuries because of her husband's actions.

Statistical Analysis

In LCA, relationships among observed variables are modeled as in factor analysis; however, LCA provides a classification of individuals rather than variables (Muthen & Muthen, 2017). In an LCA model, the underlying latent variable is categorical–representing membership (or not) in a class. Subpopulations or classes of individuals with similar responses to the observed variables, but different responses than individuals in other classes, are identified and classified together. The classes are assumed to be mutually exclusive, with individuals hypothesized to belong to only one

class (Nylund-Gibson & Choi, 2018; Masyn, 2013). LCA produces three sets of results.

First is the number of distinct classes and the latent class probability of each class.

Latent class probabilities reflect the proportion of the sample that falls into each of the

classes and sums to one. Second are conditional probabilities which provide the

probability of a particular response to an item, given that the individual is in a particular

class (Masyn, 2013). These conditional probabilities are comparable to factor loadings in

factor analysis. Conditional probabilities below 0.3 or above 0.7 indicate that the item

discriminates well across classes (Nylund-Gibson & Choi, 2018). Third, are measures of

the fit of each model. Multiple fit indices are considered together with the substantive

fit (Masyn, 2013; Muthen, 2003; Nylund et al., 2007). Indices known to perform well

include the Bayesian Information Criterion, or BIC (Lanza et al., p. 675; Cavanaugh et al.,

2012), sample size Adjusted BIC, and the Lo-Mendell-Rubin likelihood ratio test (LMR-

LRT) of model fit (Cavanaugh et al., 2012). Also used in this research are the Akaike

Information Criterion (AIC), Consistent Akaike Information Criterion (CAIC), Approximate

Weight of Evidence Criterion (AWE), the Bayes Factor (BF), and correct model

probability (*cmP*) (Gulliver & Fanslow, 2015, p. 33; Lanza et al., 2007; Nylund-Gibson &

Choi, 2018). Taken together, lower values on these approximate fit indices (Gulliver &

Fanslow, 2015; Nylund-Gibson & Choi, 2018), a low p-value on the LMR-LRT, (Cavanaugh

et al., 2012, p. 172), a Bayes Factor greater than 10, and a higher *cmP* suggest strong

support for the model (Nylund-Gibson & Choi, 2018) and are indicative of improved

model fit over the previous model (Gulliver & Fanslow, 2015, p. 33). Scree plots can also

be used to visually examine model fit statistics with 'bends' in the plot indicative of

where the addition of more classes make little to no appreciable difference to the

overall model (Nylund-Gibson & Choi, 2018). Coupled with consideration for class size

and interpretability of classes, these model fit indices and visual scree plots were used

as guidelines in identifying the model with the most appropriate number of classes for

the data.

Mplus version 8.0 was utilized for this analysis. The normalized DHS domestic

violence weighting variable was applied to account for the complex survey design.

Maximum likelihood (ML) estimates of the parameters were obtained via expectation-

maximization (EM) using Mplus version 8.0 (Muthen & Muthen, 2019). There were 4

steps to the statistical analysis: (1) Establishing the final measures (indicators) based on

the items in the DHS; (2) Establishing the measurement or enumeration model for the

full sample of women; (3) Testing the construct validity of the enumeration model; and

(4) Testing invariance of the enumeration model across countries.

Establishing final measures. Latent class models were initially run using all 19

items (CTS items measuring physical and sexual abuse, emotional abuse items,

controlling behaviours and achieved control, and fear) as an exploratory assessment to

identify the most ideal items to include as indicators. Specifically, this was done to

identify items that did not discriminate well across any of the classes, and to identify if

the DHS items designed to comprise composite measures of distinct types of abuse (i.e.,

less severe physical abuse, severe physical abuse, sexual abuse, emotional abuse)

behaved similarly across classes and therefore could be combined into composite

measures. Items with similar conditional probabilities across all classes would indicate

that an item did not characterize any classes of violence. These items were dropped

from further analysis. Items that behaved similarly across classes or where there was

redundancy between items (e.g., high bivariate associations between items) were

combined since there was evidence that they were measuring the same dimension or

severity of IPV. Results of these analyses were used to create the final indicators used in

establishing the enumeration model.

Establishing the enumeration model for the full sample. To identify the

enumeration model for the full sample, also referred to as the measurement model, an

exploratory LCA was run using the final set of indicators of IPV. K + 1 models were run

until the model no longer converged. Model and substantive fit were examined to select

the final model with the most interpretable and meaningful distinctions among the

different classes.

Construct validity of the latent class model. Consistent with previous LCA models

(see for example Ansara, 2009 and Ansara & Hindin, 2010) and given the limited

literature exploring the patterns of IPV, especially in sub-Saharan Africa, the construct

validity of the classes identified via the enumeration/measurement model was assessed.

Since one would expect that the different classes of violence might have different

likelihood of injuries, injury was used to assess the construct validity of the classes. To

do this, three injury items were added one at a time as indicators to the final LCA model.

LR chi-square tests were run to compare the unrestricted model that allows thresholds

to vary across classes to a restricted model that fixed the thresholds to be the same

across classes for the injury variable(s). The likelihood ratio chi-square ($LR\chi^2$) was

calculated as -2*d, where d is the difference in the log-likelihood values for each of the

models. A significant LR χ^2 suggests that the experience of injuries significantly varied

across classes.

Invariance of the latent class model. Differences by country were examined by

testing for measurement invariance, or differential item functioning (DIF). LCA assumes

that within classes, individuals have the same or similar probability of endorsing an item

and that there is no direct association between covariates (in this case, country) and the

individual indicator items. In other words, testing for DIF allows for the assessment of

whether the measurement model for IPV is the same for this sample of women in

Kenya, Tanzania, and Uganda. DIF was examined by regressing each final indicator, one

at a time, on country, in addition to regressing each latent variable from the full sample

model on country to allow for the possibility that women from Kenya, Tanzania, and

Uganda might have a different likelihood of being in each of the different classes. If any

of these direct effects were found to be significant, it would suggest the presence of DIF,

and the requirement for examining these associations in more depth, with the

possibility of needing different measurement models for the different countries.

Results

Sample

The socio-demographic characteristics of the sample and their experiences of IPV

are presented in Tables 4.1 and 4.2, respectively. Women in the sample are, on

average, 31 years of age, live in rural areas, have a primary level education, and are

married and/or living with their partner. Having a husband with multiple wives was

reported by 14%-27% of the women, with polygyny more frequently reported by

women in Uganda.

Table 4.1: Weighted Sample Characteristics

	Kenya	Tanzania	Uganda	Total+	Total++
Average Age	31.54 yrs	31.48 yrs	30.34 yrs		
Rural Residence	60 %	68.7 %	83.4 %	67. 8 %	71.4 %
Education					
None	9.5 %	18.3 %	16.2 %	15.3 %	15.0 %
Primary	55.9 %	67.7 %	60.8 %	63.1 %	61.8 %
Secondary	26.5 %	13.1 %	18.7 %	18.0 %	19.0 %
Higher	8.1 %	1.0 %	4.3 %	3.7 %	4.3 %
Marital Status					
Married/Live w/partner	85.2%	84.6 %	84.8 %	84.8 %	84.9 %
Widowed	4.8 %	3.4 %	4.2 %	3.9 %	4.1 %
Divorced or Separated	10.0 %	12.0 %	11.0 %	11.3 %	10.0 %
Multiple Wives	13.9 %	17.4 %	26.8 %	17.5 %	19.8 %

Footnote: All women who reported ever being in a union and who completed the domestic violence module. Removing women with missing and/or do not know replies may result in slight variations from other reports using DHS data.
 + Weighted with Individual weight, not accounting for different sample sizes.
 ++ Weighted with Individual weight, giving equal weight to each country.

Step One: Establishing Indicators

Table 4.2 lists the final indicators, their measures resulting from LCA, and the

weighted[10] frequencies of these items. Consistent with DHS question construction and

with publications that utilize these DHS items as binary composite measures (Bazargan-

Hejazi, Medeiros, Mohammadi, Lin, & Dalal, 2013; Cools & Kotsadam, 2017; Durevall &

Lindskog, 2015; Tandrayen-Ragoobur, 2018), all three items measuring emotional

abuse, all four items measuring less severe physical abuse, and all four items measuring

[10] Individual countries are weighted using the normalized DV weight, however for the pooled estimates, totals are provided using both the DV weight as is, and also by re-scaling weights to give each survey/country equal weight in the pooled estimates.

controlling behaviours were combined into their three respective composite measures, each coded 1 if any of the particular items were experienced and 0 if none were. All three sexual violence items were included as stand-alone items, as they appeared to differentiate among classes and did not appear to perform the same way across classes. Of the three items measuring severe abuse, the only item that discriminated across classes was whether respondents had ever been kicked or dragged by husband/partner. The other two items (ever been strangled or burnt by husband/partner; ever been threatened with knife/gun or other weapon by husband/partner) neither differentiated among classes nor performed in the same way as the other severe abuse item. Consequently, these latter two items were dropped and the one item assessing whether the respondent was kicked or dragged by husband/partner in the last 12 months was retained as the measure of severe abuse. The measure assessing achieved control did not discriminate across any of the classes and did not add anything to the overall model beyond what was already being captured with the item measuring controlling behaviours, so it was dropped from further model building. This finding was not surprising given that 97% of women who reported experiencing achieved control also reported experiencing controlling behaviours, suggesting that the one control item was enough. The item measuring fear was retained. The final number of items used in the model was eight.

Characteristics of IPV.

In total, over one-third of all women in this sample reported experiencing at least one instance of either emotional, physical, or sexual abuse (not in table). As Table

4.2 shows, less severe physical abuse (36%-41%) followed by emotional abuse (24%-

32%) were the most frequently reported types of abuse across countries.

Table 4.2: Weighted Frequencies of Indicator Items Used in LCA (% reported)

	KN (%)	TZ (%)	UG (%)	Total+ (%)	Total++ (%)
Emotional Abuse Composite (past 12 mos) Husband ever: Humiliated; threatened to harm or hurt someone she cares about; insulted her to make her feel bad	23.9	28.1	31.6	27.2	28.0
Less Severe Physical Abuse Composite (past 12 months) ever been pushed, shook, or had something thrown at them by husband/partner; ever been slapped by husband/partner; ever been punched with fist or hit with something harmful by husband/partner; ever had arm twisted or hair pulled by husband or partner	35.6	38.9	41.2	38.1	38.7
Severe Physical Abuse (past 12 months) • kicked or dragged by husband/partner	8.7	10.3	9.3	9.7	9.5
Sexual Abuse (past 12 months) • physically forced into unwanted sex • forced into other unwanted sexual acts physically forced to perform sexual acts	8.8 4.2 3.4	9.5 2.8 4.4	18.9 4.1 7.6	10.5 3.4 4.5	12.6 3.7 5.2
Controlling Behaviours Composite • gets jealous if/when she talks to other men; tries to limit her contact with family; has accused her of unfaithfulness; insists on knowing where she is all times	62.9	74.0	74.1	70.5	70.5
Fear of Husband/Partner: Sometimes / always	35.9	44.0	49. 6	42.1	43.4

Footnote: Sample includes all women who reported ever being in a union and who completed the domestic violence module. Removing women with missing and/or do not know replies may result in slight variations from other reports using DHS data.
+ Weighted with DV weight, not accounting for different sample sizes.
++ Weighted with DV weight, giving equal weight to each country.

Approximately 10% of women reported experiencing severe physical abuse, and while a

similar proportion of women in Kenya and Tanzania reported experiencing sexual abuse,

more women in Uganda reported experiencing sexual abuse in the form of forced sex by

one's partner/husband. Controlling behaviours were reported by most women in the

sample (71%), and fear was reported by two thirds to half of the women in each

country.

Step Two: Latent Class Measurement Model for all Women

Model fit indices for each of the K+1 models for all three countries combined are

presented in Table 4.3. As is typical, fit indices did not converge on a single solution, and

instead were used to help identify candidate models. Results suggest a 5-7 class model:

A 5-class model according to the AWE (81833) which tends to under-extract; a 7-class

model according to the AIC (80756) which tends to over-extract; a 6-class model

according to the BIC (812171.84) and CAIC (81270.84); a 7-class model according to

sample size adjusted BIC (81027.02). Beginning with the 5-class model, smaller

improvements in model fit were obtained as each additional class was added. The

elbows or bends in the scree plot of BIC values, Sample Size Adjusted BIC values, and AIC

values (Figure 4.1), and the scree plot of loglikelihood values (see Figure 4.2) reduced

the candidate models to a 5 or possibly a 6-class model. The 6-class model is consistent

with the BF and Lo-Mendell-Rubin Adjusted LRT test, which suggest that a 6-class model

provides a superior fit compared to a 5-class model (p<0.05). This is not the case for the

7-class model compared to the 6-class model (p>0.05). Bivariate residuals were

examined for the 5, 6, and 7 class models. No residuals were identified as problematic

(i.e., >+/-2-4), suggesting that local independence was largely achieved. Based on these

results the 5-class and 6-class models were chosen as candidate models to compare

their class structure, sizes and substantive fit/meaning.

As can be seen in Table 4.4, the key difference between the 5- and 6-class

models is that Class 2 (*Primarily Control*) in the 5-class model is further divided into two

separate classes in the 6-class model: one of these classes is characterized by fear and

control, and the other by emotional abuse and control. The *No Violence* class (Class 1),

both physical IPV classes (Class 3 and Class 4 in the 5-class model and class 4 and 5 in

the 6-class model), and the *Sexual IPV* class (Class 5 in 5-class model and Class 6 in 6-

class model) were very similar in class size and item endorsement probabilities across

both of the models. While the research on IPV emphasizes the importance of including

measures of psychological abuse (e.g., emotional abuse, control) when studying IPV

experiences, no rationale could be identified for expecting there to be substantial

differences in IPV experiences characterized predominantly by control, and IPV types

characterized by control and fear or control and emotional abuse. Given the lack of a

theoretical or practical basis to divide the predominantly control class into two classes,

and to avoid over-extraction of classes, the 5-class local independence model was

selected as the most parsimonious model.

Table 4.3: Model Fit Indexes for Class Enumeration for IPV Types in Sub-Saharan Africa (n=13,817)

K	LL	Npar	LR	Df	P	AIC	BIC	SS aBIC	CAIC	AWE	*K classes vs. K+1 classes*		
											LRTS	Adj. LMR pBF	cmP(K)
1	-48464.28	8	23.653	229	1	96944.55	97004.82	96979.4	97012.82	97105.09	12570.9	<.01 <.01	<.01
2	-42178.81	17	147.298	234	1	84391.61	84519.69	84465.62	84536.69	84732.76	2368.7	<.01 <.01	<.01
3	-40994.47	26	220.059	226	0.59	82040.94	82236.81	82154.19	82262.81	82562.69	765.67	<.01 <.01	<.01
4	-40611.64	35	496.674	217	0	81293.27	81556.95	81445.72	81591.95	81995.63	360.24	<.01 <.01	<.01
5	**-40431.51**	44	324.7	208	0	80951.03	**81282.51**	**81142.68**	81326.51	**81833.99**	150.48	**0.02 >3**	**>.99**
6	**-40356.28**	53	**232.35**	**199**	**0.05**	80818.55	**81217.84**	**81049.41**	**81270.84**	**81882.12**	79.59	**0.71 >20**	**>.99**
7	-40316.48	62	183.473	190	0.6	**80756.96**	81224.05	**81027.02**	81286.05	82001.13	na	na na	>.99
8	-40303.44	71	166.214	181	0.77	**80748.87**	81283.76	81058.13	81354.76	82173.65	------	------	<.01

Footnote: Cells bolded and shaded indicate candidate models based on the particular model fit statistic
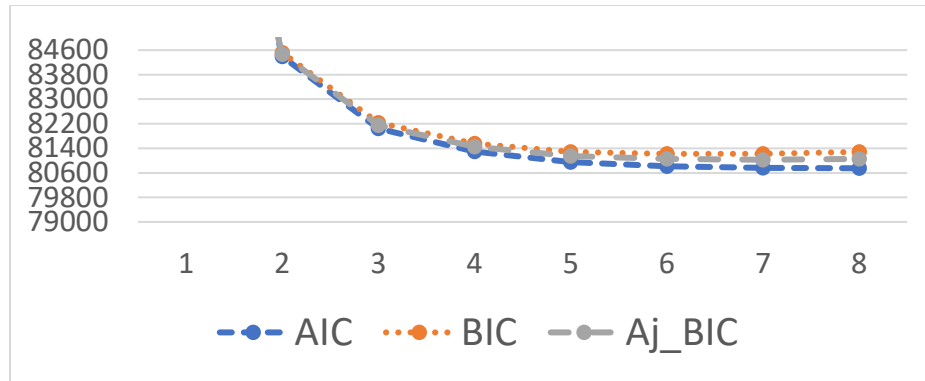
Figure 4.1: Scree Plot AIC, BIC, and Sample Size Adjusted BIC—Total Sample

Footnote: Values for 1 class model have been truncated to show more details for other classes.
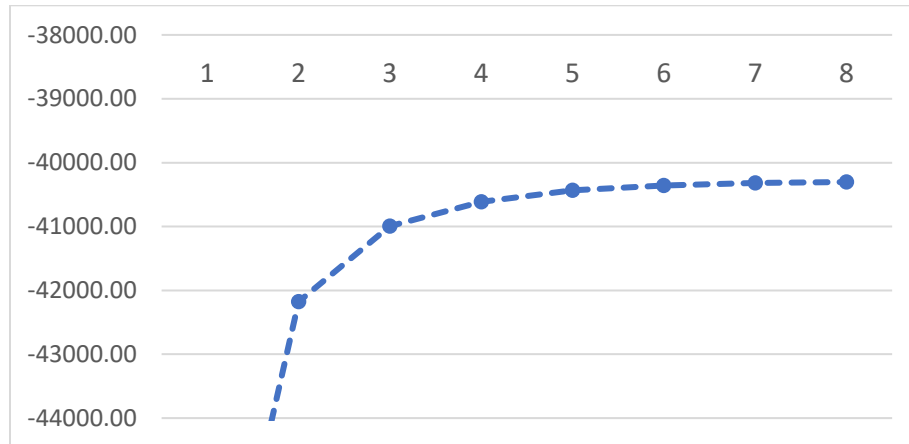
Figure 4.2: Scree Plot of Log-Likelihood Values across classes—Total Sample

Footnote: Values for 1 class model have been truncated to show more details for other classes.

Table 4.4: Candidate LCA model's of IPV for women in Kenya, Tanzania, and Uganda (n=12,712)

5- Class Model

	Class 1 No IPV (44 %)	Class 2 Primarily Control (37 %)	Class 3 Less Severe Physical IPV (13 %)	Class 4 Severe Physical IPV (3 %)	Class 5 Sexual IPV (3 %)
% of women in each class					
Emotional abuse	0.03	0.29	0.79	0.90	0.64
Minor Physical abuse	0.04	0.51	0.99	1.00	0.39
Severe Physical abuse	0.00	0.01	0.53	0.71	0.00
Physically forced into unwanted sex	0.01	0.02	0.28	0.96	0.79
Forced into other unwanted sex acts	0.00	0.00	0.01	0.74	0.26
Physically forced to perform sex acts	0.00	0.00	0.02	0.91	0.39
Controlling behaviours	0.48	0.86	0.90	0.95	0.87
Fear	0.16	0.56	0.77	0.90	0.49

6-Class Model

	Class 1 No IPV (46 %)	Class 2 Fear & Control (18 %)	Class 3 Emotional Abuse & Control (13 %)	Class 4 Less Severe Physical IPV (13 %)	Class 5 Severe Physical IPV (3 %)	Class 6 Sexual IPV (2%)
% of women in each class						
Emotional abuse	0.02	0.00	0.68	0.78	0.92	0.57
Minor Physical abuse	0.06	0.54	0.47	1.00	1.00	0.44
Severe Physical abuse	0.00	0.00	0.02	0.52	0.73	0.00
Physically forced into unwanted sex	0.01	0.01	0.11	0.26	0.96	0.89
Forced into other unwanted sex acts	0.00	0.00	0.02	0.01	0.73	0.44
Physically forced to perform sex acts	0.00	0.01	0.00	0.03	0.89	0.77
Controlling behaviours	0.50	0.88	0.86	0.90	0.95	0.89
Fear	0.16	0.70	0.45	0.80	0.90	0.53

Footnote: Values within cells are individual conditional probabilities of item endorsement within each class. Values <0.3 or >0.7 indicate the item has high homogeneity within the class (Nylund-Gibson & Choi, 2018). N= weighted using DV weight.

Final 5-class measurement model of IPV.

The first and most prevalent class represents the *No Violence group* and describes 44% of the women. Individuals in this class have a less than 1% probability of endorsing the violence/abuse items, a 48% probability of endorsing the control item, and a 16% probability of endorsing the fear item. Based on the convention that posterior probabilities of less than 0.3 and greater than 0.7 represent homogeneity for the item within the class (Nylund-Gibson & Choi, 2018), this class is characterized by no abuse, no violence, and no fear, but some (albeit comparatively lower) potentiality of control.

The second most prevalent class is labelled *Predominantly Control* and accounts for 37% of women. These women are characterized by having a high probability of reporting that their partner is controlling (86%), fairly low probabilities of experiencing emotional violence (29%), and about half of women in this class experience minor physical abuse and/or fear (51-56%), yet these women have a very low probability (< 1%) of experiencing severe physical violence or sexual violence.

Class three was labelled *Less Severe Physical IPV* and characterized 13% of the women. Women in this class had high probabilities of endorsing emotional abuse (79%), minor physical abuse (99%), control (90%), and fear (77%) but had much lower probabilities of reporting severe physical abuse or sexual abuse. That is, with the introduction of physical violence (in addition to the ever-prevalent control), women in this class were likely to report emotional abuse and being fearful of their partners.

Class four was labelled *Severe Physical IPV* and accounted for approximately 3% of the women's experiences. This class is characterized by extremely high probabilities (71-100%) of experiencing all forms of abuse, including emotional abuse, minor physical abuse, severe physical abuse, sexual abuse, control and fear.

The final class, *Sexual IPV,* also accounted for 3% of the sample. These women had a high likelihood of reporting being physically forced into unwanted sex (79%), having a husband/partner who engages in controlling behaviours (87%), and experiencing emotional abuse (64%).

Step Three: Testing the Construct Validity of the 5-Class Enumeration Model

Three items inquiring about the degree and severity to which a woman experienced an injury because of what her husband/partner did to her were asked in the domestic violence module of the DHS and were included as construct validity checks for the identified measurement model. Just over one-third of women in Kenya and Uganda reported experiencing minor injuries, while more than two-thirds of women in Tanzania reported the same. In terms of moderate injuries, just under 20% of women in Kenya and Uganda endorsed this item, compared to only 11% of women in Tanzania. Severe injuries were reported by 10% of women in Kenya, compared to 14% of women in Uganda and Tanzania.[11]

To assess whether these classes were related to injuries in the expected way (i.e., women who are experiencing the most serious forms of IPV are most likely to

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[11] Table not included, as injury items were only utilized while checking for construct validity of the classes.

report experiencing injuries), each of the injury items was added to the final model as an

indicator item with the eight other IPV indicator items in the latent class model. Injury

was not included as a distal outcome, because in terms of temporal order, and the way

questions were worded in the DHS, it is unclear whether the injuries resulted from

women's current abusive experiences (reported on in past 12 months), and thus to use

injury as an outcome measure would violate an assumption of regression. Nevertheless,

adding injuries to the enumeration model as an indicator provides more details into the

patterns of IPV experiences and helps to provide context as a way of assessing the

validity of the identified classes (Ansara, 2009). To test whether or not the proportion of

women reporting experiencing that particular type of injury was significantly different

across the classes, likelihood ratio chi-square tests were run to compare the

unrestricted models (model that allowed thresholds of injuries to vary across classes)

with the restricted models (model that fixed thresholds for injury items equally across

classes). To compute the likelihood ratio chi-square test, the formula -2*d was used,

where d is equal to the difference in log-likelihood values between the unrestricted and

restricted models (df = the difference in the number of parameters for each of the

models) (Table 4.5).

Women in the two classes that involved high endorsements of physical abuse

(Class 3: *Less Severe Physical IPV* and Class 4: *Severe Physical IPV*) had the highest

probabilities of experiencing minor injuries such as bruises (76-80%), moderate injuries

such as eye injuries, sprains, dislocations, or burns (24-34%), and severe injuries such as

wounds, broken bones, broken teeth, or other serious injury (24-34%). Women in the

No Violence class were unlikely to report having been injured (< 1%), whereas women in

the *Sexual IPV* class and the *Predominantly Control IPV* class had a higher probability of

reporting minor injuries (23-47%) compared to moderate or severe injuries (< 1%).

These results provide some support for these IPV classes and distinctions as injuries

were experienced by women in each class in the expected direction and magnitude.

Table 4.5: Class-Specific Injuries: Item Endorsement Probabilities of Injuries

	Class 1 No Violence	Class 2 Primarily Control	Class 3 Less Severe Physical IPV	Class 4 Severe Physical IPV	Class 5 Sexual IPV	LR χ^2
Minor Injuries	2 %	47 %	76 %	80 %	23 %	<0.01
Moderate Injuries	0 %	1 %	25 %	34 %	< 1 %	<0.01
Severe Injuries	<1 %	1 %	24 %	34 %	< 1 %	<0.01

Step Four: Test for Non-Differential Measurement by Country

Once the measurement model was identified, it was assessed to examine if it

applied equally to the IPV experiences of women in Kenya, Tanzania, and Uganda

(testing for measurement invariance). To examine differential item response (DIF),

direct associations between IPV items and each country were examined. Results

indicate some statistically significant relationships, as women in Kenya, Tanzania, and

Uganda have different likelihoods of reporting specific abuse experiences within each of

the classes. DIF suggests the presence of measurement invariance and the indication

that the original class enumeration model may not be appropriate for women in each of

the countries. As a result, three country-specific measurement models were run to

assess whether the 5-class model was replicated in each of the countries (replicating

steps 2 and 3 above), giving support for "configural invariance," where the loading

patterns are the same or similar across groups (Sokolov, 2018). There were some country-level differences in the way the individual items functioned, however a 5-class model that showed the same trends as the overall 5-class model was among candidate models in all three countries (Kenya: 5 and 6-class model; Uganda: 4 and 5-class model, and Tanzania: 5 or 6-class model) (See Appendix C for country-specific models). Based on these findings, it was decided that a 5-class combined country model adequately and succinctly depicted the IPV experiences reported by women in this sample.

Discussion

The results of this analysis suggest that women are experiencing distinct and diverse types of IPV. There is positive support for RQ_1, as a 5-class model was identified and chosen as adequately representing the heterogeneity in IPV experiences. Although there were some differences in item endorsements across countries, a 5-class model with the same or relatively same class structure was modelled for women in Kenya, Tanzania, and Uganda (RQ_3), suggesting the 5-class combined country model provides a reasonable representation of these women's experiences of IPV. The final model (RQ_2) includes a class of women who are not experiencing Violence (Class 1: *No Violence*— 44%) and four distinct types of IPV. These types include IPV characterized predominantly by control (Class 2: *Predominantly Control*—37%), IPV characterized by a high likelihood of sexual IPV coupled with control (Class 5: *Sexual IPV*—3%) and two classes of physical IPV, with one consisting predominantly of less severe forms of physical abuse, emotional abuse, control and fear (Class 3: *Less Severe Physical IPV*—13%), and the other consisting of more severe forms of physical abuse, sexual abuse, emotional abuse,

control, and fear (Class 4: *Severe Physical IPV*—3%). These findings are in line with those

reported by Macquarrie, Winter, and Kishor (2014), who, using DHS data from 12

countries in sub-Saharan Africa in a factor analysis, concluded that the factor structure

of spousal violence was similar across countries (including in Kenya, Tanzania, and

Uganda, specifically) despite country-level differences in the prevalence of IPV items.

Their findings revealed three primary factors or types of IPV: physical violence coupled

with emotional violence; sexual violence; and control (Macquarrie, Winter, & Kishor,

2014). While the current analysis varied by identifying distinctions in the severity of

physical abuse patterns, the overall structure of abusive experiences is quite similar and

supports the examination of IPV experiences among women collectively in Kenya,

Tanzania, and Uganda.

These patterns of IPV experiences exemplify how different types of IPV may be

captured in different types of IPV research and are consistent with assertions by

Johnson (1995) and others (Ansara & Hindin, 2010; Cavanaugh et al., 2012; Johnson &

Leone, 2005; Lawson, 2012; Kelly & Johnson, 2008). They suggest that needs and

pathways to help victims of different types of IPV are likely to differ. For instance,

women experiencing *Predominantly Control* (Class 2) and women experiencing *Sexual*

IPV (Class 5) may be most in need of empowerment within their relationship and/or

access to financial independence and individual autonomy, whereas women

experiencing a form of physical IPV (Class 4 and Class 5) may be most in need of

immediate physical safety.

Controlling behaviours emerged as a distinct characteristic across all identified classes, including the *No Violence* class, despite lower levels of endorsement compared to the other classes. There is no type of IPV that occurred in the absence of control (i.e., all classes have high probabilities of control). However, *Predominantly Control* (Class 2) and *Sexual IPV* (Class 5) occurred with relatively low probabilities of severe physical IPV, and fear (and of experiencing injuries). These findings support assertions regarding the normalcy of and pervasiveness of men's control over their wives and households in this region (Adjei, 2012; Bingeheimer, 2010; Cubbins et al., 2014; Jakobsen, 2014**;** Swart, 2017). While a higher likelihood of control was evident in the physically violent IPV classes, control was still present across the non-physically violent classes, and occurred in the absence of, or low likelihood of, fear suggesting that control (as it has been measured) likely characterizes the nature of relationships, yet is not necessarily characteristic of abusive relationships.

The two distinct types of physical IPV identified in this LCA model (*Less Severe Physical IPV* and *Severe Physical IPV)* may reflect what Jakobsen (2014) has referred to as "good beatings" and "bad beatings," and what others (Adjei, 2015; Ilika, 2005; McCloskey et al., 2016; National Research Council, 2015) have identified as distinctions in acceptable or tolerable forms of husband to wife abuse. Conceptualizing *Less Severe IPV* as tolerable, or "good beatings" (i.e., justified as serving a social purpose, correctives to norm violations, expressions of caring/love, and not producing severe injuries) and *Severe Physical IPV* as unacceptable or "bad beatings" (i.e., not necessarily justifiable

and producing injuries that impede daily functioning) provides support for the identified

class structure within this context (i.e., two distinct types of physical IPV).

Additionally, the IPV modeled in the *Severe Physical IPV* class (Class 5) appears to

resemble the IPV that is often identified in the research examining IPV experiences

among women who have attended shelters, police stations, or have sought medical

assistance, with IPV experiences characterized by pervasive and diverse forms of

violence, coupled with fear and control, suggesting that the most severe forms of IPV

can be captured in this context. The pervasive nature of control, where even women in

the *No Violence* class (Class 1) had a 48% probability of endorsing control suggests that

the pattern of IPV characterized by relatively minor forms of physical and/or emotional

abuse in the absence of control and/or fear, identified most often through large-scale

survey research in the North American context (Ansara & Hindin, 2010; Dutton, 1995;

Johnson, 1995; Kelly & Johnson, 2008; Lysova, Dim & Dutton, 2019; Macmillian &

Gartner, 1999; Straus & Smith, 1990; Straus, 1990; Straus & Gelles, 1986), is not

replicated. These findings suggest that while deriving indicators of IPV for an LCA model

from the global literature (including in the West) is useful, the theoretical assumptions

and explanations for IPV that have been developed in the West are not necessarily

appropriate in other world regions.

Limitations

Limitations of this research are related to the data or survey and to the

methodological approach and analyses. For instance, the validity of DHS data requires

individuals to accurately self-disclose abuse experiences, which are prone to potential

response biases; analyses are restricted to the items included in the survey; and items utilized in the final enumeration model were not all consistent with what would be expected based on the literature and the grouping of items into composite measures of emotional abuse, less severe and severe physical abuse, and sexual abuse. More specifically, while the individual emotional abuse and less severe physical abuse items performed similarly to one another, providing support for the use of composite measures for these abuse experiences, only one severe physical abuse item was retained, as two failed to distinctly characterize any of the IPV types. The items inquiring whether women had been strangled or burnt by their husband/partner and whether they were threatened with knife/gun or other weapon by their husband/partner did not differentiate across IPV types and were the least likely items to be reported (< 3%). For similar reasons, the measure of achieved control was also dropped from the analysis. These items may not be relevant for this analysis because they do not apply or their wording might not capture the experience in the sub-Saharan African context (e.g., preventing women from spending time with female friends; threatening with a weapon).

Latent class analysis also has limitations. For instance, not only is model building dependent upon the indicators included, but also there is no one "right" answer or model. Instead, deciding on an appropriate LCA model involves deciding on the model that, in conjunction with both model fit and substantive fit, appears to best fit the data. Further validation is required to examine whether these classes will be identified elsewhere and/or with different samples at different time periods. The presence of DIF

between country of residence and some of the indicator items highlights another

potential limitation of this analysis. However, relaxing measurement invariance in cross-

national research is not uncommon (De Jong, Steenkamp, & Fox, 2007), as in practice it

is often impossible to establish full metric invariance (Sokolov, 2018), leading some

researchers to conclude that in large cross-country samples, the amount of bias due to

non-invariance may not be critical for substantive inferences (Avvisati, Le Donne, &

Paccagnella, 2019). A compromise between full measurement invariance and a lack of

measurement invariance is sought, although the consensus is not clear (Sokolov, 2018).

The consistent results for the 5-class model, and previous research that has supported a

similar structure of IPV across these countries (Macquarrie, Winter, & Kishor, 2014),

suggest that these findings are illustrative of approximating these women's experiences

of IPV.

Conclusion

The analytical approach and indicators included in this LCA model were derived

from the findings reported in the IPV literature and the desire to take an integrative

approach to modeling diverse IPV experiences. The inclusion of indicators of physical

abuse, sexual abuse, emotional abuse, control, and fear allowed for the integration of

some of the elements of IPV experiences identified by researchers who study IPV

through multiple frameworks (e.g., feminist approaches, family violence approaches).

Findings indicate the importance of accounting for diversity in IPV experiences, as four

distinct classes of IPV were modeled. These support results reported by researchers (see

for example: Ansara, 2009; Ansara & Hindin, 2010; Cavanaugh et al., 2012; Carbone-

Lopez, Kruttschnitt, & Macmillan, 2006; Johnson, 1995; Kelly & Johnson, 2008; Nurius & Macy, 2008; Gulliver & Fanslow, 2015) who identified multiple distinct types of IPV.

The cultural context and its influence on the class structure must also be considered. While findings typically reported by North American researchers have described a type of violence that occurs in the absence of control (Ansara & Hindin, 2010; Dutton, 1995; Johnson, 1995; Kelly & Johnson, 2005; Lysova, Dim & Dutton, 2019; Straus & Smith, 1990; Straus, 1990; Straus & Gelles, 1986), in this analysis, all IPV types (including to some degree the *No Violence* class) occurred in the context of control, with an entire class of IPV characterized predominantly by control. These findings highlight the common theme of men's patriarchal control over women; however, the pervasive aspect of control independent of fear and other forms of abuse suggests that patriarchy is not a sufficient explanation. Controlling behaviours, although reported with higher likelihood among those experiencing physical forms of abuse, appear to characterize a normal state of affairs for these women, raising the question of whether the control reported by these women is perceived as abusive, and/or whether it should be considered as violence. *Predominantly Control* is the largest class of IPV, and it occurs with low levels of fear (especially compared to the other classes), lending further support for the normalized aspect of control (independent of motivations for abuse). It is not until physical abuse is experienced that fear also characterizes the abuse type.

Findings that not all IPV is physical and not all physical IPV is the same, stresses the importance of ensuring there are policies and interventions designed for victims (and perpetrators) of all IPV types. If we rely solely on physical abuse and/or injuries as

indicators of IPV, a vast proportion of victims (and perpetrators) will be omitted. These findings also lend support for the measure of physical abuse items separately from sexual abuse items. Although research often merges the two types of violence into an overarching measure of physical/sexual abuse, these results indicate that they do not always coincide. An entire class of sexual IPV in the absence (or low likelihood) of physical abuse and fear was identified, as were two types of physical abuse, with only the most severe also involving sexual abuse.

The identification of these distinct IPV types points to the need for more integrative research that examines different factors or influences related to the likelihood of experiencing different patterns or types of IPV, specifically in this context. Research studying IPV experiences among women in this sub-regional area in East Africa must be explored through an East African lens and must not merely "copy and paste" interventions or models without an assessment of their regional applicability (National Research Council, 2015). While this exploratory LCA suggests this approach can be useful in assessing IPV experiences among women in these countries, it is merely the first step. In order to ensure that research is "attuned to local contexts, gender struggles and challenges" (Mama, 2011, p. e18), future research should explore in greater depth what women would characterize as IPV, and what they consider abusive in intimate relationships. Moreover, future research should also include culturally appropriate and theoretically informed covariates as potential predictors in an LCA model to understand the broader picture of IPV experiences, and the factors that are related to diverse types. Broadening our understanding of what women constitute as abusive and including

covariates into a model that examines the diverse types of IPV experiences can be used

to explore and potentially inform knowledge and context-specific interventions about

the prequels to different types of IPV experiences, with a goal of preventing IPV.

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CHAPTER 5 : EXPLORING THE DIVERSE CONNECTIONS BETWEEN MULTI-LEVEL

FACTORS AND TYPES OF INTIMATE PARTNER VIOLENCE (IPV): APPLYING AN

ECOLOGICAL FRAMEWORK TO STUDYING IPV IN SUB-SAHARAN AFRICA

Intimate partner violence (IPV) represents a major global health issue with

adverse demographic and health outcomes, especially for women and children (National

Research Council, 2015; Kishor & Johnson, 2004; WHO, 2013). As defined by the World

Health Organization (WHO) IPV includes, "physical, sexual, and emotional abuse and

controlling behaviours by an intimate partner" (WHO, 2012, p. 1), with different types of

violence often co-occurring (Smith, Thornton, DeVellis, Earp, & Coker, 2001; Sullivan,

Cavanaugh, Buckner, & Edmondson, 2009; WHO, 2011; 2012). IPV impacts

approximately one in three women worldwide (Fulu & Heise, 2015; WHO, 2013)

although these rates are not the same across locations. For example, while

approximately 30% of women in North America experience IPV, the lifetime prevalence

of IPV across sub-Saharan Africa is 37% and is one of the highest globally (WHO, 2013).

Little is known about the heterogeneous patterns of intimate partner violence

and the associated risk factors for different types of violence (Cavanaugh et al., 2012) as

research tends to only focus on physical or sexual IPV, severely restricting our

understanding of the different types or variations of IPV (Grych & Hamby, 2014). We

also lack research that examines multi-level factors that are related to IPV experiences.

While the social-ecological model accounts for multiple-interconnected levels of

influence and has been used in IPV research, as Fulu and Heise (2015) observe, it has

been "highly skewed towards factors operating at the individual level" (p. 16). Thus, we

have limited knowledge about how relationship, community, and macro-social level

factors and processes influence experiences of IPV (Fulu & Heise, 2015).

This analysis builds on previous findings that identified four distinct types of IPV

in three countries (Kenya, Tanzania, and Uganda) in eastern sub-Saharan Africa

(Peirone, 2019). It examines the simultaneous effects of multi-level factors on different

types of IPV. By acknowledging and differentiating among patterns of IPV and utilizing

the social-ecological model (Brofenbrenner, 1994; Heise, 1998), this research helps to

provide a more detailed understanding of the influences or correlates for different types

of IPV.

Review of the Literature

The social-ecological model (Brofenbrenner, 1994) theorizes violence as a result

of the interplay of factors at different levels of one's social-ecological environment (Fulu

& Heise, 2015; Heise, 1998). These different levels include the microsystem,

mesosystem, exosystem, macrosystem, and chronosystem (see Figure 5.1: The social-

ecological model). Individuals possess their own personal characteristics (*microsystem*)

and live within a family/household unit (*mesosystem*). This family/household unit is

situated within a community (*exosystem*), and the community operates within

(*macrosystem*) governmental policies and conditions (Uthman et al., 2011). Aspects of

all these levels change (or are consistent) overtime (chrono-level), as they may act

individually and in interaction with each other to heighten or reduce vulnerability to

different types of IPV. The ecological model has had some limited application in

research on IPV (Ansara, 2009; Antai & Adaji, 2012; Heise, 1998; Tandrayen-Ragoobur,

2018). It is typically applied in research designed to identify relationships between one's

social-ecological environment and IPV more broadly but, to my knowledge, never to

understanding distinct types or profiles of IPV in sub-Saharan Africa. The ecological

model places social relationships in contexts and is used here as a guiding framework for

the placement of variables into the levels in this model. Although there is considerable

room for interpretation as to where a variable or factor most appropriately fits into the

framework (Heise, 1998), what is critical for how these factors influence vulnerability to

IPV victimization and/or perpetration is not the exact location of any single factor, but

rather the "dynamic interplay between factors operating at multiple levels" (Heise,

1998, p. 266).
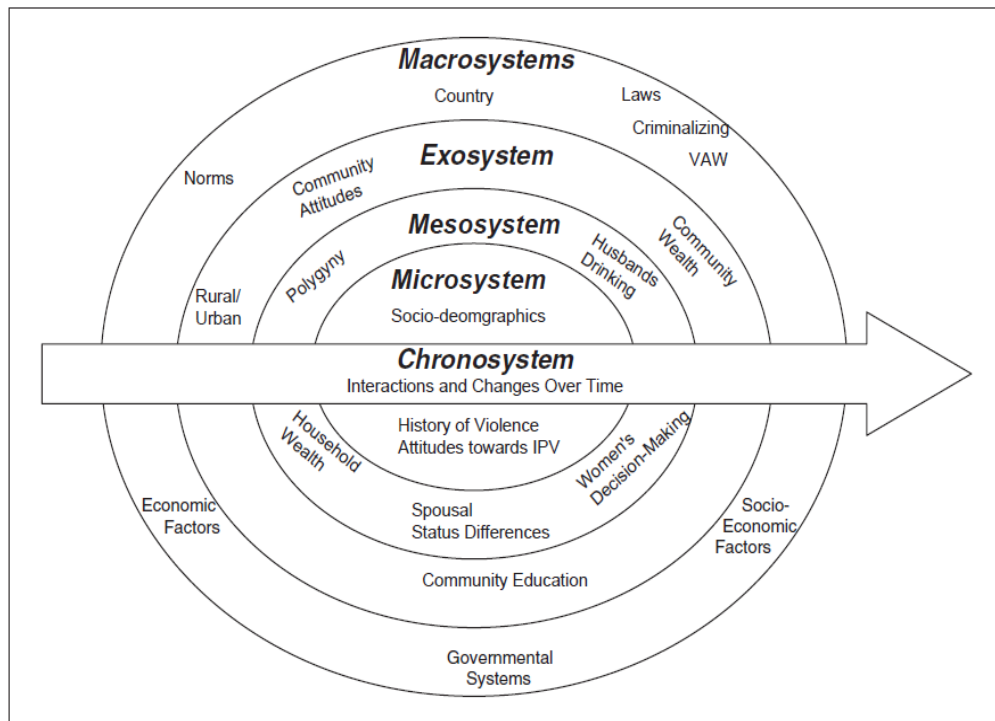
Figure 5.1: The social-ecological model of IPV based on Bronfenbrenner's original
ecological model and adapted by other researchers studying violence (Antai, Adaji,
2012; Heise, 1998; Hoffman & Kruczek, 2011; Lawson, 2012). (Figure replicates Figure
2.1 in Chapter 2).

Chronosystem: Interactions and Changes Over Time

The chronosystem accounts for change (or consistency) over time in personal, environmental, or contextual characteristics (Bronfenbrenner, 1994). These changes include, for example, those in individual- and or community-level cultural beliefs, attitudes, or tolerance towards IPV; changes in laws, legislation, or enforcement of laws criminalizing IPV; and changes in other socio-cultural contexts following changes in the social-ecological environment (Bronfenbrenner & Ceci, 1994). Political events, movements, and other structural-level changes (e.g., colonization, independence from colonial rule, mass conflict, changes in ruling political parties, changes in access to education, the emergence of a market economy, etc.) can, through their interaction and influence on multi-level factors, influence different aspects of social organization related to violence and gender (Fulu & Miedema, 2015; Oyewumi, 2011).

Postcolonial feminists and researchers from the African diaspora have argued that in sub-Saharan Africa, colonialism was a pivotal change that is salient to understanding gender relations and systems (Connell, 2015; Mama, 2011; Oyewumi, 2011). With the colonial era came the forced imposition of western models of education, religion, family/marriage, law, politics, economics, and social systems that stressed distinctions between public and private spheres, and emphasized and encouraged distinct gendered roles within each (Burger, 2013; Burrill, Roberts, & Thornberry, 2010; Fallon, 2008; Hall, 2015; Musandu, 2012). In Kenya, Tanzania, and Uganda, British influence stressed that women were not capable leaders (Aulette, 2009). Women's role was in the domestic (private) sphere, while men's role was in the

public sphere of communities, politics, formal education, and the market economy (Fallon, 2008; Thomson, Bah, Rubanzan, & Mutesa, 2015). Power and status were bestowed on African men by colonial powers, and women were excluded from political realms and formal positions of leadership (Aulette, 2009; De Haas & Frankema, 2018; Wester, 2009). Through the processes of colonization, pre-existing norms and the norms and systems imposed via British colonial rule reinforced and transformed each other (De Haas & Frankema, 2018, Schmidt, 1991), resulting in a "reconfiguration of gender inequality" and men's political re-positioning above women (De Haas Frankema, 2018). Women were severely restricted, marginalized, and excluded from formal systems of education, politics, economics, and social life (Aulette, 2009; Akin-Aina, 2011; Burrill, Roberts, & Thornberry, 2010; De Haas & Frankema, 2018; Fallon, 2008; Musandu, 2012). The influence of these factors cut across all other levels of the ecological model and characterize how larger systems of interaction and influence can be accounted for by the chronosystem, and changes over time.

Another illustration of the chronosystem is resistance by African women and women's activism, particularly related to IPV. Women's agency and organizing have impacted women's access to education and opportunities for employment (Mwatha, 2015), the passage of peace agreements (Berger, 2014), independence movements (Tripp, 2015), the development and passage of legal reform (e.g., laws on marriage, sexual offences, gender equality in constitution), and governmental action that advanced gender equality and women's rights (Domingo, McCullough, Htun & Weldon, 2012;; Hall, 2015; Kamau, n.d; Mwatha, 2015; Simbiri & Wanjala, 2016; Tripp, 2015),

including policies on VAW and attitudes towards IPV (Fallon, 2008; Fulu & Miedema, 2015; Htun & Weldon, 2013; Mwatha, 2015). Through individual and community acceptance and resistance (e.g., new gender norms, women's exclusion from formal education, employment, political engagement, changes in legislation, etc.), what constitutes masculinity and femininity and what are considered acceptable ways of enacting gender roles are developed, supported, and/or challenged and changed (Fulu & Miedema, 2015).

The chronosystem helps to explain and account for differences in IPV victimization experiences that may have emerged at different times and in response to different political events, economic changes, and legislative changes. Chronosystem changes are overarching and affect all levels of the ecological framework: macrosystem, exosystem, mesosystem, and microsystem (Hoffman & Kruczek, 2011), meaning that experiences of IPV can only be fully understood within the context of these broader, historical processes.

Macrosystem: Societal Level Factors

The macrosystem represents the outermost layer of an individual's environment. It includes the cultural values, customs, beliefs, and opportunity structures that inform and influence an individual both directly and indirectly through other levels or layers of the ecological system (Brofenbrenner, 1994; Heise, 1998; Lawson, 2012). At the macro- or societal-level, salient factors when studying IPV in sub-Saharan Africa include: poverty and gender inequality; societal norms and beliefs about the normalcy of violence, masculinity and femininity, and male ownership of women; conflict and

societal violence; legislation and legal sanctions against IPV, whether there are laws in

support of women's rights (e.g., laws related to equitable divorce and marriage) and

whether these laws are enforced; and the presence of a national-level women's

movement (Fulu & Heise, 2015; Heise, 1998; Heise & Kotsadam, 2015; Htun & Weldon,

2012;2013; Jewkes et al., 2002; Uwayo, 2013; WHO, 2012).

When family, politics, economics, and social institutions are dominated by

patriarchal beliefs and ideals, they reproduce and authenticate men's superiority over

women and lead to the assumption that men's power is natural, with violence

characterizing a practical and reasonable tool to subordinate, correct, or punish women

(Adjei, 2015; Allen & Devitt, 2012; Yodanis, 2004). Macro-level factors can influence IPV

by shaping opportunities and constraints provided by society. For instance,

governmental policies and laws that prohibit (or do not prohibit) abuse in marriage can

influence individual-, relationship-, and community-level beliefs about gender roles and

the acceptability of violence in intimate relationships (Linos et al., 2013). As McCloskey

et al. (2016) have indicated, "the state's explicit messages, therefore, shape community

norms surrounding violence in marriage; laws and policies prohibiting IPV may directly

reduce rates of perpetration in African communities" (p. 287).

However, even if there is legislation prohibiting IPV, women face difficulties

contacting or reaching the police to report abuse, financial challenges associated with

reporting abuse, issues impeding police response or action, and issues associated with a

lack of rehabilitative options in lieu of punishment oriented approaches for dealing with

abuse (Goodmark, 2015; Manjoo, 2016). Legal limitations, together with legislation that

reflects patriarchal ideologies (e.g., property ownership, inheritance) will continue to contribute to the perpetuation of IPV (Olayanju et al., 2013; Bowman, 2003). In their overview of gender-based violence in sub-Saharan Africa, Kimuna, Tenkorang, and Djamba (2018) point out that although laws have been enacted to protect women from abuse, traditional norms often override laws and legislation. That is, violence against women emerges out of social relations (Klein, 1984), and it is unlikely that legislation without social change that targets these relations will have any appreciable effect. Findings reported by Htun and Weldon (2012) highlight the importance of social change to encourage government action and legislation against VAW. Researchers found that the presence of women's autonomous (feminist) movements determined governmental action and policy change in 70 countries, over four decades, (1975—2005). This relationship held even after accounting for economic factors like national wealth, the number of women legislators, and the impact of political parties (Htun & Weldon, 2012). The research demonstrated that while changes to laws are essential, by "transform[ing] social practice, and chang[ing] public opinion" (p. 564), women's movements are an influential and essential force for these changes to have more than a symbolic macro-level impact.

The importance of changing attitudes and norms at the global level is further illustrated in Pierotti's (2013) research. Using two waves of DHS data from 26 countries across global regions there was a reduction in levels of tolerance for IPV, with structural socioeconomic and demographic changes such as urbanization, education, and access to media, failing to explain this almost universal trend (Pierotti, 2013). The conclusion was

that the diffusion and transmission of global cultural scripts condemning VAW resulted in changes in attitudes at the individual level (Pierotti, 2013). As this research shows, changes in macro-level factors (e.g., dominant global scripts related to VAW) can impact national policies and local government and community initiatives (e.g., policies, media coverage, NGO campaigns, school interventions) which can influence individual attitudes towards and experiences of IPV.

Exosystem: Community Level Factors

The exosystem refers to the "linkages and processes taking place between two or more settings, at least one of which does not contain the developing person, but in which events occur that indirectly influence processes within the immediate setting in which the developing person lives" (Bronfenbrenner, 1994, p. 40). Personal and family relationship factors operate within the exosystem or community to interact and create vulnerability or protection from IPV. Community-level factors found to increase vulnerability for IPV victimization include residing in rural versus urban communities (Antai & Antai, 2008; McCloskey et al., 2016); in communities with higher rates of poverty, lower levels of educational achievements and employment opportunities for women community-wide (Allen & Straus, 1980; Cunradi, Todd, Duke, & Ames, 2009; Ellsberg et al., 1999; Hoffman et al., 1994; Heise, 1998; Heise & Garcia-Moreno, 2002; Jewkes et al., 2002; Krishnan et al., 2010; Martin et al., 1999; Uthman et al., 2009; WHO, 2012); and in community with greater tolerance or acceptance for IPV (Antai & Adaji, 2012; Cools & Kotsadam, 2017; Mugoya, Witte, & Ernst, 2015; Kimuna, Tenkorang & Djamba, 2018; Linos et al., 2013; Owoaje & OlaOlorun, 2012; Tenkorang et al., 2013).

Community-level factors also have indirect effects on IPV victimization by influencing the broader setting in which abuse takes place. For instance, community-level factors interact with individual- and relationship-level factors to impact vulnerability towards IPV victimization. Community-level attitudes towards IPV have also been shown to moderate the influence of individual characteristics such as education (Benebo et al., 2018) and employment (Cools & Kotsadam, 2017) underscoring the importance of recognizing the community-context when examining IPV experiences.

Mesosystem: Relationship Level Factors

The mesosystem refers explicitly to the context in which abuse takes place, including the interactions and dyadic relationships a person has, the meanings assigned to them, and the power dynamics of these relationships (Fulu & Heise, 2015; Hatcher et al., 2013; Heise, 1998). Relationship dynamics must be interpreted in the context of the dominant cultural gender norms.

Women in Kenya, Tanzania, and Uganda today live with cultural norms that emphasize male superiority over females (Elu, 2012; Jakobsen, 2014; Jayachandran, 2015; Kimuna, Tenkorang, & Djama, 2018; Svenkeson, 2018). These norms cut across tribal and ethnic groups, holding men and women to prescribed modes of behaviour that carry punishment and stigma when violated, with IPV viewed as an acceptable or tolerable response to gender norm transgressions (Alio et al., 2010; Barnett, Maticka-Tyndale, Trocaire Kenya, 2016; Bonnes, 2016; Hindin, 2003; Jewkes et al., 2002; Uthman et al., 2009). A primary notion is that husbands and wives fulfill different, unequal roles. Wives are expected to be home with their children and to obey their husbands and both

act and appear submissive; whereas, husbands are expected to be breadwinners and decision-makers in complete control of their wives and their households (Adjei, 2012; Barnett, Maticka-Tyndale, Trocaire Kenya, 2016; Bingeheimer, 2010; Cools & Kotsadam, 2017; Cubbins et al., 2014; Fidan, 2017; Jakobsen, 2014; Swart, 2017). It is within this context that relationship dynamics and experiences of IPV must be interpreted.

Factors of the mesosystem identified as positively related to IPV victimization and perpetration in sub-Saharan Africa include polygyny or multiple wives (Conroy, 2014; Djamba & Kimuna, 2008; Fulu & Heise, 2015; Jewkes et al., 2002; Kimuna & Tandrayen-Ragoobur, 2018; Tenkorang & Djamba, 2018; Koenig et al., 2003; Lawoko, Jiayou, & Jansson, 2007; McCloskey et al., 2005; Owoaje & OlaOlorun, 2012; WHO, 2012; Zablotska et al., 2009), alcohol consumption and conflict over drinking (Fulu & Heise, 2015; Gillum et al., 2018; Heise, 1998; Jewkes et al., 2002), male dominance and male responsibility for decision-making in the family (Antai & Antai, 2008; Heise, 1998; Hindin, Kishor, & Ansara, 2008; Jewkes et al., 2002; Koeing et al., 2003; Levinson, 1989; WHO, 2012), male control of wealth in the family (Levinson, 1989; WHO, 2012), economic stress, relationships where one partner is responsible for supporting the entire household (Jewkes et al., 2002; WHO, 2012), and status differences (including occupational and educational) between partners (Antai & Adaji, 2012; Garcia-Moreno et al., 2005; Lawoko, Jiayou, & Jansson, 2007; WHO, 2012).

While research in sub-Saharan Africa has shown a positive association between polygyny (the practice of having more than one wife) and IPV victimization and perpetration (Conroy, 2014; Djamba & Kimuna, 2008; Lawoko, Dalal, Jiayou, & Jansson,

2007; McCloskey, Williams, & Larson, 2005; McDermott & Cowden, 2014; Tandrayen-Ragoobur, 2018; Thomson, Bah, Rubanzan, & Mutesa, 2015), pathways from polygyny to IPV are not clear and may vary across different ethnic groups. Polygynous unions may characterize a relationship already at risk for IPV (e.g., polygyny in response to poverty, inequality, or marital dissatisfaction, including negative dynamics between partners). Alternatively, it may not be polygyny itself, but the status of a wife within a polygynous union that conveys risk for IPV (Jansen & Agadjanian, 2016; McCloskey et al., 2015). The research of McCloskey and colleagues suggests that as new wives arrive, husbands may reassert their power with violence (2005). This could be explaining the findings by Jansen and Agadjanian (2016) that senior wives were more likely to experience IPV than newer junior co-wives, and junior co-wives were just as likely to experience IPV as women in monogamous marriages. Whether prompted by pre-existing poverty, inequality, relationship conflict, or stemming from and continuing to perpetuate norms regarding women's and men's status in a relationship, the relationship dynamic created by and characteristic of polygynous unions works with individual- and other relationship-, community-, and macro-level factors to create and influence pathways to IPV.

Also a characteristic of the mesosystem, population studies in Uganda, Kenya, and other parts of Africa have found that a husband's drinking was significantly associated with wife abuse (Djamba & Kimuna, 2008; Kimuna, Tenkorang, & Djamba, 2018; Koenig et al., 2003; Owoaje & OlaOlorun, 2012; WHO, 2012; Zablotska et al., 2009), excessive injuries (Heise, 2011; McCloskey, et al., 2016), and reduced likelihood

of help-seeking by a woman (Ghose, 2019). Explanations for the link between alcohol

consumption and IPV stress connections with beliefs about masculinity (Jewkes et al.,

2002), economic stressors (Ghose, 2019), and the impact of alcohol on levels of

aggression, self-control, and conflict resolution, which can lead to and exacerbate

relationship conflicts, resulting in a heightened risk for IPV (Heise, 2011; Gillum et al.,

2018; Ghose, 2019).

Research exploring the relationship between IPV victimization and age,

education, and employment differences between spouses has produced mixed results,

possibly due to differences across local contexts or ethnic groups, reflecting the complex

interplay of factors across levels. For spousal age differences, these include no

relationship (Antai & Adaji, 2012; Koeing et al., 2003), and a relationship resembling an

inverted U-shaped distribution (Djamba & Kimuna, 2008) between spousal age

differences and physical IPV. However, this study did not find a significant relationship

between spousal age differences and sexual abuse or life-threatening violence,

suggesting that the effect of spousal age differences tends to vary by type abuse

(Djamba & Kimuna, 2008).

IPV is more likely to occur when power or status differentials in marriage disturb

gender roles and beliefs that men should be of a higher status than women, including

when women have higher education or higher financial earnings than their husbands

(Antai & Adaji, 2012; Bonnes, 2016; Cooks & Kotsadam, 2017; Hindin, Kishor, & Ansara,

2008; Lawoko, Jiayou, & Jansson, 2007; MacMillan & Gartner, 1999; Tandrayen-

Ragoobur, 2018). These findings have been explained as a "backlash effect" against

gender role discrepancies (Cooks & Kotsadam, 2017; Tandrayen-Ragoobur, 2018).

Women who earn more than their partners (or have higher education or occupational

prestige) may face heightened risk of physical abuse at home because men may use

violence or coercion to maintain the dominance they feel is threatened by women's

higher education and/or employment (Alesina, Brioschi, & Ferrara, 2016; Cools &

Kotsadam, 2017; Tandrayen-Ragoobur, 2018: Vyas, Mbwambo, & Heise, 2015).

Exosystem factors thus appear to be related to IPV most often through pathways

relating to gender, family, and relationship norms about power, control, and

subordination, with variations in research findings likely related to variations in local

circumstances and contexts.

Microsystem: Individual / Personal Level Factors

The *microsystem* consists of characteristics of one's socialization experiences,

developmental history, personality, and current behaviours that interact with and

influence responses to relationships (mesosystem), community (exosystem), and

societal (macrosystem) stressors (Fulu & Heise, 2015; Heise, 1998). Factors such as low

levels of education (Jewkes et al., 2002; Kimuna, Tenkorang, & Djambe, 2018;

McCloskey et al., 2016; WHO, 2012), previous victimization experiences, including

childhood abuse (Dunkle et al., 2004; Herrenkohl et al., 2008; Jewkes et al., 2002;

McCloskey et al., 2016; Owoaje & OlaOlorun, 2012), witnessing marital or family

violence (Ellsberg et al., 1999; Heise, 1998;2011; Jewkes et al., 2002; Svenkeson, 2018;

Tenkorang, Owusu, Yeboah, & Bannerman, 2013; Thomson, Bah, Rubanzan, & Mutesa,

2015; WHO, 2012), and individual acceptance of social norms of male dominance and/or

the acceptance of physical violence in close relationships (Antai & Adaji, 2012; Cools &

Kotsadam, 2017; Gass et al., 2011; McCloskey et al., 2016; Okenwa & Lawoko, 2010;

Tenkorang et al., 2013; WHO, 2012), have all been identified as micro-level or personal-

level risk factors for victimization by an intimate partner.

  Sociodemographic characteristics provide limited explanatory contributions to

understanding vulnerability to violence (Koenig et al., 2003). Their limited or

inconsistent contributions are likely due to interactions among sociodemographic

characteristics (reflecting intersectionality) and with other factors at other levels known

to be directly related to IPV experiences. Although possibly due to variations in social

contexts, research on the influence of education and employment on IPV vulnerability

has not produced consistent results. For instance, while some researchers have

identified a negative relationship between education level and IPV victimization (Koeing

et al., 2003; WHO, 2012), others have found positive relationships (Pambe et al., 2014),

education-level specific associations (Jewkes et al., 2002; Kimuna, Tenkorang, & Djamba,

2018; Lawoko, Jiayou, & Jansson, 2007) or relationships resembling an inverted U-

shaped distribution between women's education level and IPV victimization (Cools &

Kotsdam, 2015). Similar negative (Kwagala et al., 2013) and positive (Ahinkorah,

Dickson, & Seidu, 2018; Antai & Adaji, 2012; Kimuna, Tenkorang & Djamba, 2018;

Tandrayen-Ragoobur, 2018; Lawoko, Jiayou, & Jansson, 2007) associations between

employment status and IPV victimization have also been reported.

  Women's education and/or employment may challenge or threaten patriarchal

norms and beliefs that it is men's role and duty to be primary providers and

breadwinners for their families and, as a result, this gendered expectation could lead to

the belief among men that their wife is not performing her wifely duties (Cools &

Kotsadam, 2017). Instead, she is posing a threat to her husband's position as the

household head through an increase of her bargaining power within the family and

relationship (Alesina, Brioschi, & Ferrara, 2016). She is challenging men's status in the

public domain by accessing different (public) networks in spaces outside of the

household (Heise, 2011). These findings underscore the relevance of gender norms

(Alesina, Brioschi, & Ferrara, 2016) and acceptability of violence in response to

violations of 'typical' gender roles in setting the stage for victimization within

relationships. Thus, while individual education and employment may impact IPV

experiences, education and employment differences between spouses (as discussed in

the section on the mesosystem) and gender norms and interpretations of the meaning

of women's education and employment may be more critical when considering the

impact of these individual empowerment measures on IPV. Nevertheless, the

relationship between women's empowerment via education and/or employment is, as

of yet, unclear (Hindin, Kishor, & Ansara, 2008).

     Although sociodemographic factors are limited in their explanatory ability to

account for IPV experiences, research has consistently identified individual factors like

history of violence (Ellsberg et al., 1999; Heise, 1998; Koenig, et al., 2003; Svenkeson,

2018; Tenkorang et al., 2013; Thomson, Bah, Rubanzan, & Mutesa, 2015) and attitudes

towards or tolerance of IPV (Antai & Adaji, 2012; Cools & Kotsadam, 2017; Kimuna,

Tenkorang, & Djamba, 2018; Tenkorang et al., 2013; Uthman et al., 2009) as positively

related to IPV experiences. Gender roles that endorse male authority and female obedience are associated with attitudes or tolerance of violence to control or correct an erring wife (Adaji, 2004; Maldonado, Watkins, & Dilillo, 2015; Ritzel-Jaffe & Wolfe, 2001), with both men and women likely to endorse the use of men's violence towards their wives (Ilika, 2005; Koenig et al., 2003; Jakobsen, 2014; Uthman, et al., 2009). Despite attitudes tolerating IPV, Jakobsen (2014) distinguished between a "good beating" and a "bad beating." There is consensus that a "bad beating" is excessive, unacceptable, and often related to men's alcohol consumption, while "good beatings" are not only acceptable but are supported when women do not meet gender norm expectations and need their husbands to correct their erring ways (Adjei, 2015; Burrill, Roberts, & Thornberry, 2010; Heise, Ellsberg, & Gottmoeller, 2002; National Research Council, 2015). Individual factors like history of violence and attitudes towards IPV can set the stage for what is typical or normal in relationships, and thus IPV experiences.

Building on a previous latent class analysis that modeled distinct patterns of IPV experiences among a sample of women in Kenya, Tanzania, and Uganda (Peirone, 2019), the objective of the current analysis is to examine the relationship between these patterns or types of IPV and multi-level risk factors or influences in one's ecological environment. The overarching research questions are: What factors are related to membership in a particular class or type of IPV, and do factors related to IPV vary based on the type of IPV being experienced?

Methods

Data and Sampling

The 2014 Kenyan, 2015 Tanzanian, and 2011 Ugandan Demographic and Health Survey (DHS) data were used for this analysis, as these were the most recently available data for these countries at the time of analysis. The DHS is a cross-sectional survey that utilizes two-stage cluster sampling to obtain a nationally representative sample. Details of the sampling design and procedures are reported in the official DHS reports (KDHS, 2014; UDHS, 2011; TDHS, 2015). The study used data from women who were ever married or in a union and completed the domestic violence module, resulting in a total unweighted sample size of 13,821 women across the three countries (Kenya=4,519 women; Tanzania=7,597; Uganda=1,705). All analyses were weighted using the DHS individual weights for sociodemographic characteristics, and the domestic violence weight for the domestic violence questions. Survey administrators were trained to conduct interviews per the World Health Organization's (WHO) ethical and safety recommendations for researching domestic violence (Emery, 2011).

Measures.

The measures in this analysis include five classes, or types of IPV established using LCA (Peirone, 2019) and measures in the ecological levels. The latter were tested for their influence or risk of a woman being in one of the five classes.

Types of IPV: a five-class latent class model of intimate partner violence.

Previous research has identified a 5-class model of IPV (Peirone, 2019). The five identified classes include *No Violence*, consisting of women who were unlikely to report

experiencing any of the forms of IPV included in the analysis; *Predominantly Control*;

Less Severe Physical IPV; Severe Physical IPV; and *Sexual IPV*.

Covariates: the social-ecological environment.

As previously discussed, the social-ecological model (Bronfenbrenner, 1994)

theorizes violence as a result of the interplay of factors at different levels of one's social-

ecological environment (Fulu & Heise, 2015; Heise, 1998). These different levels include

the chronosystem, macrosystem, exosystem, mesosystem, and microsystem (Figure

5.1). Given that DHS data are cross-sectional, representing a snapshot at one point in

time, changes across time (the chrono-level) were not possible to assess in this analysis.

Nevertheless, understanding and interpretation of the multi-level factors that provide

protection or heighten vulnerability for IPV victimization must be understood with a

recognition of the chronosystem, and how factors at multiple levels of the social-

ecological environment interact with each other over time to enact shifts or changes in

multi-level factors that are related to IPV victimization.

Macrosystem: societal-level factors.

Macrosystem factors include such measures as the educational achievement of

women in the country, the percent of women engaged in waged and salaried work,

gender-related norms and discrimination in family law and laws governing women and

potential instances of violence towards women. Given that only three countries were

included in this analysis, and women in a country would have the same code for all

these variables creating redundancy across the items, *country of residence* is the

overarching macro measure. Tanzania was used as the reference category [0] for the

two binary variables: Kenya and Uganda.

Exosystem: community-level factors.

Community-level factors were derived via primary sampling units (PSU's) in the

DHS. These are small areas that represent sampling blocks ranging from 20 to 30

households. There are approximately 1612 PSU's in Kenya, approximately 608 in

Tanzania, and 712 in Uganda. Four community-level variables were created by

aggregating individual responses of relevant variables within PSUs[12]. *Rural residence* was

coded with an urban residence as the reference category [0]. The urban-rural

distinctions and definitions are country-specific, and the DHS adopts each country's

urban-rural definition (DHS.com). The DHS contains a wealth index variable. The wealth

index represents a composite measure of a household's cumulative living standard and

includes household ownership of different assets such as televisions, bicycles, water

access, and sanitation facilities (DHS, 2019). The DHS categorizes households into five

wealth quintiles representing a gradient of poorest to wealthiest households. Following

previous research (Antai & Adaji, 2012), these categories were recoded into two binary

variables using the lowest quintile as the reference group [poor = 0] compared to middle

(quintiles 2 and 3) and wealthy (quintiles 4 and 5) households. *Community-level wealth*

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[12] While all women in the community who completed the women's questionnaire (not only those who completed the DV module) were included in the creation of the community-level variables, for women who completed the DV module, their individual scores were not included in the creation of their community-level variables as their individual scores on these items (ex. Rural residence, wealth, attitudes towards IPV) were included as individual-level variables in the model.

was computed as the modal wealth index score for the primary sampling unit in which the woman resides. It was coded into two binary variables, middle and wealthy, each with poor as the reference group [0]. *Community-level education* was the only variable not measured as a binary variable, and this was to be consistent with the literature (Antai & Adaji, 2012). It was coded as a continuous variable representing the average number of years of education that women in the community have attained. *Community tolerance of violence against women* was measured using the proportion of women in a community who endorsed at least one of the five attitude items justifying a husband beating his wife. Women living in communities where greater than 50% of women justified a husband beating his wife/partner on at least one of the items were coded as residing in a community where the majority tolerates spousal violence against women. Women residing in communities where fewer than 50% of women justified a husband beating his wife/partner on at least one item were coded as living in communities that do not justify violence against women [0].

Mesosystem: relationship-level factors.

Relationship factors consisted of seven measures. Most required combining responses to questions about oneself and one's partner (e.g., spousal differences in education or age) or were based on rankings developed by DHS staff and included in the data (e.g., wealth). The reference categories for spousal age, education, and employment differences were chosen to reflect a comparison to women who could be considered to have achieved some element of status or empowerment that is not

necessarily typical (e.g., higher education than one's husband, older age than one's husband, and being the only employed spouse in the relationship).

Spousal age differences were coded into two binary options: respondent and husband/partner are the same age [within three years of each other], and respondent is younger than husband by greater than three years, each using respondent older than husband/partner by more than three years as the reference category [0]. *Spousal educational differences* were based on the highest level of schooling of self and spouse. Consistent with previous research using DHS data (Lawoko, Jiayou, & Jansson, 2007), variables were coded into two binary options: respondent had the same level of education as her husband/partner, and respondent had less education than her husband/partner, each using respondent had more education than her husband/partner as the reference category [0]. *Spousal differences in employment status* were based on reports of own and partner's employment and were coded to yield two binary measures each using only the respondent works as the reference category [0]: both the respondent and her husband/partner work, only the husband/partner works.

Household wealth was measured with the DHS wealth index (described above). Following previous research (Antai & Adaji, 2012), categories were recoded into two binary variables using the lowest quintile as the reference group [poor = 0] compared to middle (quintiles 2 and 3) and wealthy (quintiles 4 and 5) households.

Husband/Partners Drinking was measured with an item that asked respondents "does (did) your (last) husband/partner drink alcohol?" Responses were coded with having a husband/partner that doesn't drink as the reference group [0], compared to

those who have a husband/partner that drinks alcohol. *A female-headed household* was

coded as either living in a household that is not headed by a female [0] or living in a

household that is headed by a female. *Polygyny* or the presence of other wives in one's

relationship was measured with the question that asked respondents "does your

(husband/partner) have other wives or does he live with other women as if married?"

Response options were coded with no other wives/not in a polygynous relationship as

the reference group [0], compared to those who are in polygynous relationships/have

husbands or partners who have other wives.

   Decision-making capacity within the relationship was assessed with four items

that asked women about their role in decision making related to the spending of their

husband/partner's income, her own health care, making large household purchases, and

on visits to family, friends, or relatives. Consistent with previous publications (Benebo et

al., 2018; Svenkeson, 2018; Thomson, Bah, Rubanzan, & Mutesa, 2015), women were

considered to have decision-making capacity if they made these decisions either alone

or jointly with their husband's/partners. Factor analysis suggests that these four items

are measuring the same construct, with one factor accounting for greater than 52% of

the variance, an eigenvalue of 2.06 for one factor, all four items having factor loadings

higher than 0.65, and an alpha value of 0.70 for this factor. Responses to these four

items were summed into a scale of 0 (no decision making) to 4 (high decision making)

and were subsequently coded to create two binary variables, each with no decision

making as the reference category[0] compared to some decision making [score = 1-2],

and high decision making [score ≥ 3].

Microsystem: personal individual-level factors.

Microsystem factors include socio-demographic characteristics, personal

history, and tolerance towards IPV. *Age* was coded into two binary variables, each using

young (≤ 24 years = 0) as the reference category: mid-age [25-34 years], and older [≥ 35

years]. *Employment status* was coded as employed [0] and not employed [1]. *Education*

level was measured by a question asking respondents to indicate their highest level of

schooling. Responses were coded into three binary variables, each using no education

[0] as the reference group: primary education, secondary education, and higher

education.

History of physical violence was measured by asking respondents "from the time

you were 15 years old, has anyone (other than your/any husband/partner) hit you,

slapped you, kicked you, or done anything else to hurt you physically?"

(dhsprogram.com). If respondents answered no, they were coded as having no history

of physical violence by someone other than a spouse/partner [0], while those who

endorsed this item were coded as having a history of physical violence outside of a

union/partnership [1]. *Previously witnessing parental abuse* was measured by asking

respondents, "As far as you know, did your father ever beat your mother?" with

response options of yes [1] and no [0]. *Attitudes towards domestic violence* were

assessed by asking women whether a husband is justified in beating his wife in each of

five specific instances: if wife goes out without telling husband, if wife neglects the

children, if wife argues with husband, if wife refuses to have sex with husband, and if

wife burns the food. Response options included: no, yes, and don't know. Consistent

with previous research (Alesina, Brioschi, & Ferrara, 2016; Antai & Adaji, 2012; Cools &

Kotsadam, 2017; Heise & Kotsadam, 2015; Pierotti, 2013), a yes to any of these items

was coded as tolerating violence against women [coded 1]; a no to all five items was

coded as not tolerating violence against women [0], and don't know responses were

omitted.

Statistical Analysis

The analysis presented here is a structural model-based hypothesis testing that

introduced covariates as predictors of membership in each of the five IPV classes

presented in Table 5.2. The covariates were the multi-level risk factors for IPV identified

in the IPV literature that were present in the DHS data described above. Adding

covariates to a mixture model is specified by a model of latent class regression, whereby

the latent class variable (comprised of the indicator variables) is simultaneously

regressed on covariates through multinomial logistic regression (variable-centered). This

step in the mixture model building process allows for the exploration of the

simultaneous effects of multi-level factors on IPV, and more specifically on class

membership. Re-running the LCA model with covariates added in blocks, as opposed to

merely categorizing individuals based on their highest individual class-specific posterior

probability and running a series of logistic regression models, not only ensures that

measurement error is not ignored, but also allows for the assessment of the robustness

of the latent class model, because it allows the model to change if the addition of

covariates necessitates a change or shift in the class structure. If the class structure or

the proportion of individuals within each class varies substantially with the addition of the covariates, the model may be misidentified, and/or poorly fit.

Each block of variables corresponding to the different levels of the ecological model was first entered individually to assess the impact of variables in each block on membership in the different classes. Next, blocks were entered sequentially in a stepwise fashion to examine the impact of covariates in each block when controlling for the impact of variables in other blocks. Variables that did not reach statistical significance ($p < 0.05$) were dropped before the addition of the next block of variables. The final model examined the simultaneous impact of multi-level factors on the different types of IPV. All analyses were run using appropriate weights to account for the complex survey design.

Results

Sample Characteristics[13]

Weighted proportions of socio-demographic characteristics of the sample are presented in Table 5.1. On average, women were 30-32 years of age; and the majority were rural residents, with primary school education. Higher education was least common among women in Tanzania who were significantly less likely than women in both Kenya and Uganda to report having higher education ($p<0.001$, $\varphi = -0.185$; $\varphi = -0.103$). Most women were married or living with their husband/partner, with official marriage rates significantly lower among Ugandan women compared to Kenyan and

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[13] The sample description and Table 5.1 are replicated from Peirone, 2019.

Tanzanian women. Tied to these official marriage rates are rates of polygyny where just under one in five women report being in polygynous relationships, with the highest rates among women in Uganda. Most women live in homes where their husbands are the household head, and on average, approximately six in ten women own assets of a house and/or land alone, or jointly with their husband, with homeownership slightly more common than land ownership.

Table 5.1: Sample Characteristics

	Kenya	Tanzania	Uganda	Total+	Total++
Average Age	31.54 yrs	31.48 yrs	30.34 yrs		
Rural Residence	60 %	68.7 %	83.4 %	67. 8 %	71.4 %
Education					
None	9.5 %	18.3 %	16.2 %	15.3 %	15.0 %
Primary	55.9 %	67.7 %	60.8 %	63.1 %	61.8 %
Secondary	26.5 %	13.1 %	18.7 %	18.0 %	19.0 %
Higher	8.1 %	1.0 %	4.3 %	3.7 %	4.3 %
Marital Status					
Married/Living Partner	85.2%	84.6 %	84.8 %	84.8 %	84.9 %
Widowed	4.8 %	3.4 %	4.2 %	3.9 %	4.1 %
Divorced or Separated	10.0 %	12.0 %	11.0 %	11.3 %	10.0 %
Multiple Wives	13.9 %	17.4 %	26.8 %	17.5 %	19.8 %
Respondent Is Household Head	28.9 %	13.7 %	22.3%	19.5 %	21.2 %

*FN = All women who reported ever being in a union and who completed the domestic violence module. Removing women with missing and/or don't know replies may result in slight variations from other reports using DHS data.
+ Weighted with Individual weight, not accounting for different sample sizes.
++ Weighted with Individual weight, giving equal weight to each country.

Patterns of Intimate Partner Violence

Table 5.2 presents the 5-class model identified by Peirone (2019) in earlier work. Class 1, *No Violence* accounts for 44% of women and is characterized by low probabilities of endorsing all the indicator items (albeit still an approximately 50%

probability of endorsing control). Class 2, *Predominantly Control,* includes 37% of women and is characterized by very low levels of severe physical violence and sexual violence, and a high likelihood of experiencing control by one's husband/partner. Class 3, Less *Severe IPV*, captured the IPV experiences of 13% of women and is characterized by high endorsements of emotional abuse, less severe physical abuse, control, and fear, and low endorsements of sexual abuse. Class 4, *Severe IPV,* captured approximately 3% of women's experiences and is characterized by very high endorsements of all types of abuse, including emotional abuse, less severe and severe physical abuse, sexual abuse, control, and fear. The final class, Class 5, *Sexual IPV*, accounts for 3% of IPV experiences and is characterized by high endorsements of sexual abuse and control, low endorsement of physical abuse, and relatively high endorsements of emotional abuse. Thus, while Class 1 represents women who are not experiencing violence, the remaining four classes describe different patterns or types of IPV. Class 2, *Predominantly Control*, and Class 5*, Sexual IPV*, both characterize types of abuse that occur in the absence of physical violence, while Class 3, *Less Severe IPV,* and Class 4, *Severe IPV* describe abusive experiences that include elements of both psychological abuse and physical abuse. These patterns of IPV are consistent with those reported by Macquarrie, Winter, and Kishor (2014). Using factor analysis with DHS data from 12 countries (including the three countries utilized in the current analysis) they found that, despite variations in the frequencies of abusive experiences, the factor structure of violence across countries supported distinct patterns of physical abuse, sexual abuse, and control. Additionally, as this five-class model suggests, and further supports the findings by Macquarrie, Winter,

and Kishor (2014), there was little distinction between emotional abuse and physical

abuse, which co-occurred.

Table 5.2: 5-Class Latent Class Model of IPV Experiences[14]

5- Class Model					
	Class 1 No Violence (44 %)	Class 2 Primarily Control (37 %)	Class 3 Less Severe Physical IPV (13 %)	Class 4 Severe Physical IPV (3 %)	Class 5 Sexual IPV (3 %)
Emotional abuse	0.03	0.29	**0.79**	**0.90**	0.64
Minor Physical abuse	0.04	0.51	**0.99**	**1.00**	0.39
Severe Physical abuse	0.00	0.01	0.53	**0.71**	0.00
Physically forced into unwanted sex	0.01	0.02	0.28	**0.96**	**0.79**
Forced into other unwanted sex acts	0.00	0.00	0.01	**0.74**	0.26
Physically forced to perform sex acts	0.00	0.00	0.02	**0.91**	0.39
Controlling behaviours	0.48	**0.86**	**0.90**	**0.95**	**0.87**
Fear	0.16	0.56	**0.77**	**0.90**	0.49

Multi-Level Influences of Class Membership

Influence of each ecological level on patterns of IPV.

Results of the individual blocks of variables on the different types of IPV are

presented in Table 5.3a through 5.3d (see Appendix D). While these results are useful in

understanding the influence of these variables, given that the simultaneous influence of

multi-level factors is central to the social-ecological model, findings from the final

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[14] Table 5.2 is replicated from Peirone, 2019.

combined model are the focus here. All individual-, relationship-, community-, and country-level factors showed significant relationships with latent class membership in the individual blocks, so all variables were retained for stepwise block modelling.

Influence of combined ecological levels on patterns of IPV.

Tables 5.4a through 5.4d provide the stepwise results as each block was added (see Appendix D). Beginning with block 1, and with each additional block of covariates, the LCA model kept showing a stable and trustworthy model, with similar item endorsement probabilities, class sizes, and class structure, suggesting the 5-class model for IPV holds, even with the addition of multi-level covariates. Of particular note however, is that with the addition of relationship-level (block 2) variables and the *No Violence* class and the *Predominantly Control* class switched in frequencies, with the largest class now the *Predominantly Control* class (40%) followed by the *No Violence (*36%) class. Model fit statistics accounting for brief changes in sample sizes across the models suggest that the best fitting model identified via the lowest sample size adjusted BIC is the final five-class model of IPV that accounts for individual-, relationship-, community-, and country-level influences of IPV. The final model (see Table 5.4d) indicates that multi-level factors significantly influence not only whether a woman experiences any IPV, but also can be useful to differentiate likelihood of class membership in each of the IPV classes.

Microsystem.

Micro-level factors significantly related to IPV in the final model (Table 5.4d) include respondent's education, history of violence (both personal and parental), and

attitudes towards IPV. Individual age was not significant after the community level variables were added to the model (Table 5.4c), so this variable was dropped. Similarly, while individual employment was positively related to all types of IPV (compared to No Violence) in block one (Table 5.4a), once relationship factors, community factors, and country of residence were added, individual employment status was no longer significant. The association between employment and IPV is explained by relationship and community characteristics, not a woman's employment status per se.

Individual educational achievement was found to be a robust predictor of the classes, maintaining consistent coefficients across each of the blocks. Compared to women with no education, women with primary or secondary education were significantly more likely to be experiencing *Sexual IPV* compared *No Violence* and the other IPV types. Although having higher education (compared to no education) was positively related to *No Violence* compared to physical IPV, among those experiencing IPV, women with higher education had a higher likelihood of experiencing *Sexual IPV (and Predominantly control)* compared to physical IPV. Although having <u>primary or secondary</u> education does not necessarily reduce one's vulnerability or risk for physical IPV, it appears to heighten one's vulnerability for *Sexual* IPV. Further, having <u>post-secondary</u> education appears to reduce vulnerability for physical IPV compared to all other classes, while simultaneously further heightening one's risk for S*exual IPV*.

Women with a history of personal or parental violence and women who were tolerant of IPV were significantly more likely to experience the four IPV types (compared to *No Violence*) and were significantly more likely to experience physical IPV (*Less Severe*

Physical IPV & *Severe Physical IPV*) compared to *Predominantly Control* IPV. Findings remained relatively consistent across the models; however, these individual-level covariates (parental violence, history of family violence, and attitudes towards violence against women) did not distinguish between any of the four types of IPV until relationship-level variables were added in block two (Table 5.4b), when these variables were related to a higher likelihood of physical IPV compared to *Predominantly Control.*

Mesosystem.

Of the eight relationship level factors added in Block 2 (Table 5.4b), six were retained in the final model (Table 5.4d). Spousal age differences and female head of household were dropped as they were not significant in stepwise modelling. Results for status differences between husband and wife through education or employment were similar. Compared to women who have the same or less schooling than their husbands, women who have a higher level of education than their husbands were significantly more likely to be experiencing physical violence compared to *No Violence,* and also had a higher likelihood of being in the physical IPV classes compared to the *Predominantly Control* or the *Sexual IPV* class. When women have higher levels of education than their husbands, a trade-off appears with a reduced vulnerability for *Sexual IPV* and a heightened vulnerability for physical forms of IPV. These findings are especially interesting in light of those identified at the individual-level regarding women's level of education, where higher education was related to a heightened likelihood of not experiencing violence (*No Violence* class) and of membership in the *Sexual IPV* class compared to the physical IPV classes.

Compared to employed women with unemployed partners, employed women with employed partners/husbands were significantly more likely to be in either of the physical IPV classes compared to the *Predominantly Control* class. There were no significant differences in IPV experiences among employed women with unemployed partners/husbands and unemployed women with employed partners/husbands, supporting the finding that it is not necessarily individual employment status that impacts IPV experiences, but rather the dynamic of the spousal employment differences.

There were no significant differences across classes between women who had no decision-making and women who had low decision-making, so they were combined into a reference category to compare to women with high decision-making. Women with high decision-making were significantly less likely to experience IPV (compared to *No Violence)*, however among those who experience IPV, high decision-making capacity is related to a higher likelihood of all forms of IPV compared to *Sexual IPV*. While high decision-making capacity may be a buffer for IPV in general, when women are responsible for more decision-making in the household (including if decision making extends to sexual decision-making) its possible this disrupts the traditional relationship dynamic, so when they experience IPV, it is more likely to be in the form of control and physical IPV compared to *Sexual IPV*.

Being in a polygynous union and or having a partner/husband who drinks alcohol was related to a heightened risk for IPV in general, and also differentiated risk between IPV classes. These women were significantly more likely to experience *Severe Physical*

IPV compared to all other forms of IPV. These associations held across models,

emphasizing the potentially physically violent nature of both polygynous unions and

husband's drinking. In fact, of all the variables in the final model, these two predictors

were the only significant factors to distinguish risk specifically between the two physical

abuse classes. That is, while other factors are differentially related to membership in the

physical abuse classes, having a husband who drinks alcohol and having a husband who

has other wives are related not only to a higher likelihood of physical IPV in general but

also a significantly higher likelihood of *Severe Physical IPV* compared to *Less Severe*

Physical IPV class.

Household wealth showed no significant differences between middle and poor in

block 2, so poor/middle became the reference category compared to wealthy

households. In the final model, there was a negative relationship between wealth and

severity of IPV experiences, highlighting the increased vulnerability that women from

poorer households face. Compared to women in wealthier households, residing in

poor/middle wealth households was related to a higher likelihood of experiencing

physical IPV compared to both *No Violence* and *Predominantly Control*, suggesting that

household wealth appears to be a protective factor against physical abuse.

Exosystem.

Community-level education of women was dropped because it was not a

significant covariate; however, all other community-level variables had significant

relationships in the final model. While differences between IPV types were not apparent

by urban/rural residence or community tolerance of spousal IPV, those who reside in

urban areas and those who reside in communities that tolerate IPV had a higher

likelihood than those in rural areas and those in less tolerant communities to report all

types of IPV compared to *No Violence*. Community-level wealth appeared to impact

membership in the different IPV classes differently than individual-level wealth.

Compared to women who reside in poor communities, women who reside in middle-

class communities were significantly more likely to be in the most *Severe IPV* class

compared to the *No Violence* class and the *Predominantly Control IPV* class, and were

significantly more likely to be in either of the physical IPV classes compared to the

Sexual IPV class. However, women living in wealthy communities (compared to women

living in poor communities) trended toward or were significantly more likely to be in the

No Violence, Predominantly Control, or Sexual IPV classes compared to the *Less Severe*

IPV class. These findings suggest somewhat of an inverted U-shaped relationship

between community-level wealth and severity of IPV victimization. Women from poorer

communities have a lower likelihood of physical IPV (vs. *No Violence, Predominantly*

Control, and *Sexual IPV*) compared to women from middle-class communities, but a

higher likelihood of *Less Severe IPV* (vs. *No Violence, Predominantly Control*, and *Sexual*

IPV) compared to women in wealthier communities.

Macrosystem.

Country of residence was included as a macro-level covariate to determine

whether membership in any of the classes varies by a function of one's country. Results

indicate no significant differences between country of residence and experiencing or not

experiencing IPV; however, women from Kenya were significantly more likely than

women from Tanzania to be in the *Sexual IPV* class compared to both the *Predominantly Control* class and the *Less Severe IPV* class. No other country-level differences were found, suggesting that the micro- meso- and macro-levels variables in the ecological model accounted for many country-level differences identified in the individual block model (Table 5.3d). These findings are consistent with those reported by Macquarrie, Wilson, and Kishor (2014), who found that despite country-level differences in IPV experiences, the structure of IPV was similar across Kenya, Tanzania, and Uganda, lending additional support for a model of IPV that examines the experiences of women collectively across this sub-region.

Discussion

This analysis provides support for the notion of distinct and diverse IPV types and points to the importance of research that recognizes the broader dynamic in which women live and experience IPV. Factors from all levels of the social-ecological model differentiated not only between experiencing and not experiencing violence but also between the different types or classes of IPV. Results stress the importance of prevention and intervention efforts to acknowledge that multi-level factors have different effects on and across IPV types.

Failing to account for the multi-level factors in the social-ecological environment can mask, omit, or distort relationships between different factors and IPV experiences. For instance, although women's empowerment via individual education, employment, or decision-making in a relationship are important and appear to be somewhat protective against IPV in a broad sense, consistent with results reported elsewhere,

examining their relationship to distinct types of IPV leads to the conclusion that

individual empowerment of women (via employment, education, and/or decision-

making in the household) is not enough, and in some cases has a negative effect (Cools

& Kotsadam, 2017; Guarnieri & Rainer, 2018; WHO, 2011).

Key findings and relationships were consistent with previous research and added

details about factors related to distinct IPV experiences. For instance, similar to

relationships reported in the literature, individual employment was not a significant

covariate once other factors were added to the model (Okenwa & Lawoko, 2010);

however, individual factors like lower levels of education (Koenig et al., 2003; Lawoko,

Jiayou, & Jansson, 2007), history of violence (Dunkle et al., 2004; Erulkar, 2013;

Herrenkohl et al., 2008; Kwagala et al., 2013; Owaje & OlaOlorun, 2012; WHO, 2012),

and tolerance for IPV (Antai & Adaji, 2012; Kimuna, Tenkorang, & Djamba, 2018; Linos et

al., 2013; Owoaje & OlaOlorun, 2012; Tenkorang et al., 2013; Uthman et al., 2009) were

all positively related to IPV victimization.

While post-secondary education acted as a protective factor against physical IPV,

education was positively related to *Sexual IPV* across educational levels. These findings

are similar to those of Tandrayen-Ragoobur (2018) who reported a positive relationship

between higher education and sexual and emotional violence, but not physical violence,

and also findings reported by Bazargan-Hejazi and colleagues (2013) that similarly found

a positive relationship between women's ability to read and sexual abuse. However, it is

important to consider that women with higher education may not necessarily be more

likely to experience *Sexual IPV* (compared to all other types including *No IPV* for women

with primary or secondary education), but rather may be more likely to identify

experiences as 'unwanted' or 'physically forced.' Women with no education, on the

other hand, may be more likely to tolerate or accept the notion of men's control over

women's sexual agency, a husband's right and woman's duty to provide sex

(Bingenheimer, 2010), and thus may be less likely to identify spousal rape as "<u>physically</u>

<u>forced</u> into <u>unwanted sex</u>" like it is phrased in the DHS survey. Further

complicating/adding insight into this relationship is that despite legislation criminalizing

gender-based discrimination in the Constitutions of Tanzania, Kenya, and Uganda, none

of these countries has prohibitions explicitly criminalizing spousal sexual rape (the

Republic of Uganda, 2010; National Research Council, 2015), further adding to the social

and legal context in which these women experience abuse, and in this case sexual

abuse. Depending on how men perceive gender roles, women's status achievements

(via education and/or employment), and the acceptability of IPV as a response to

gender role violations, experiences of abuse are likely to vary. For instance, several

researchers have found that the relationship between women's resources (e.g.,

employment and/or education) and IPV are dependent on and moderated by both

men's attitudes and community attitudes towards IPV (Benbeo et al., 2018; Cools &

Kotsadam, 2017). This led Cools and Kotsadam to conclude that violence is dependent

on men's adherence to strict gender roles and the community's overall acceptance of

wife abuse (2017).

  Findings that history of violence (personal and parental) and individual tolerance

for IPV were positively related to all IPV types (compared to *No Violence)*, as well as

both types of physical IPV (compared to *Predominantly Control),* are consistent with research that shows that women who grow up in violent homes or who have a history of violent experiences tend to normalize or tolerate violence in relationships, and subsequently are at heightened vulnerability to experience IPV (Heise, 1998; Thomson, Bah, Rubanzan, & Mutesa, 2015; Svenkeson, 2018). Experiencing violence at an early age can also impact other factors related to IPV victimization, including financial outcomes in adulthood (Henry, Fulco, & Merrick, 2018), as well as other relationship level factors (e.g., spousal status characteristics) related to IPV experiences. These associations illustrate the interplay between multi-level factors to create particular social contexts and vulnerability for violence.

Relationship level factors showed similar trends to those reported in the literature, with men's drinking (Djamba & Kimuna, 2008; Koenig et al., 2003; Owoaje & OlaOlorun, 2012; WHO, 2012; Zablotska et al., 2009), being in polygynous relationships (Conroy, 2014; Djamba & Kimuna, 2008; Lawoko, Jiayou, & Jansson, 2007; McCloskey, Williams, & Larson, 2005), and having spousal educational and/or employment status differentials (Antai Adaji, 2012; Boones, 2016; Bowman, 2013; Garcia-Moreno et al., 2005; WHO, 2012; Kimuna, Tenkorang, & Djamba, 2018; Lawoko, Jiayou, & Jansson, 2007), or levels of decision-making that may disrupt or challenge gender norms all positively related to IPV experiences, and specifically the more severe forms of IPV.

When women have more education than their husbands, or when both husband and wife are employed, cultural norms that value and support male superiority and responsibility are disrupted. As Cools and Kotsadam (2017) have indicated, women's

employment (and also higher education) directly challenges the notion of men's status

as breadwinners and providers and gives women access to social networks that are

observable to others outside of the home. Given that gender norms also tend to stress

gender role distinctions between public and private spheres (Gillum et al., 2018; Hall,

2015; Swart, 2017), it is not surprising that wives who have more education than their

husbands and who are employed similarly to their husbands, could be interpreted by

men as a visible threat to the family and relationships. This perceived threat may result

in a higher likelihood of physical IPV compared to other forms of IPV, lending support for

"backlash" explanations for IPV in response to women's empowerment (Cools &

Kotsadam, 2017). Although a woman's employment directly challenges the status of her

husband, especially in settings characterized by male dominance (Cools & Kotsadam,

2017), it is possible that the types of employment and or the earnings that women are

actually generating via employment, and these in comparison to their husbands, are

what have an impact. For instance, Okenwa and Lawoko (2010) reported that

occupational status was not independently related to IPV victimization; however, the

type of employment and earnings were. Both unemployed women and women who

worked in the agricultural sector had a lower likelihood of IPV compared to women who

worked in other sectors. This suggests that women who are engaged in substantial

income-generating work may be more prone to abuse than those engaged in other work

(Okenway & Lawoko, 2010). Although not analyzed in-depth, 60% of employed women

in the current sample reported employment in agricultural work, suggesting their

earnings may not be substantial enough to result in a direct relationship between

women's individual employment and IPV. Moreover, it is possible that employment in the agricultural sector does not require women to challenge gender role distinctions based on private and public space. Working in agriculture may entail working on one's own or family's farm or property, as opposed to working in public spaces, and thus is consistent with women's private role at home and with family.

In a similar vein, supporting research that suggests women's shared decision-making capacity may be a buffer for IPV in general (Hindin, Kishor, & Ansara, 2008; Hindin & Adair, 2002), this analysis found that women's involvement in decision-making is protective against all forms of IPV (compared to *No Violence)*. However, when women with decision-making capacity do experience violence, their vulnerability for physical IPV compared to *Sexual IPV* is significantly heightened. Since gender norms dictate that men's role is to be the household head, in control, and responsible for making decisions (Adjei, 2012; Bingeheimer, 2010; Cubbins et al., 2014; Koenig et al., 2003; Swart, 2017), men may be resorting to physical violence when they feel threatened by high levels of women's involvement in household decision-making. Providing some context to these relationships, both Ahinkorah, Dickson, and Seidu (2018), and Hindin and Adair (2002) report a higher likelihood of IPV in relationships where women were sole-decision makers (in the latter study this was also the case for men's sole decision-making). While the current analysis conceptualized high levels of decision-making as the wife's sole or joint decision-making in at least three of four instances, it is possible that, in this analysis, high levels of decision-making begin to resemble the relationship between sole female decision-making and abuse.

The impact of different relationship-level characteristics on IPV experiences are related to and can likely be explained as a result of gender norms and the normativity of physical punishment to correct a wife's gender transgressions, or erring ways (i.e., good beatings vs. bad beatings), and/or the "backlash" effect that occurs when husbands feel their position or status is threatened, so they resort to violence as a method of reasserting their superiority and power (Cools & Kotsadam, 2017). These findings suggest that individual and cultural attitudes may be setting the stage for IPV more broadly, and for more severe forms of IPV on an individual and relationship level.

While individual- and relationship-level factors distinguished among types of IPV more so than community-level factors, findings suggest that community-level factors influence the context in which women experience abuse. Differences by urban/rural residence may characterize differences in gender ideologies, tolerance for IPV victimization, the likelihood of reporting IPV experiences, and poverty or socioeconomic status. Urban women, for instance, may be more likely to condemn IPV victimization and thus to recognize and report their experiences (Alesina, Brioschi, & Ferrara, 2016; Swart, 2017). It is also possible that a higher likelihood of IPV in urban areas is due to the finding that women are more likely to publicly challenge men's status (e.g., employment outside the home) (Alesina, Brioschi, & Ferrara, 2016), to be susceptible to abuse because they are in areas where more women work and/or have an education (Cools & Kotsadam, 2017), or to reside in poverty-stricken urban slums where they are isolated from their communities (Swart, 2017).

Contributing to the discussion, across all classes of IPV, controlling behaviours by husbands were pervasive. Women, independent of physical abuse, sexual abuse, emotional abuse, and fear, experience control over her social interactions, underscoring the 'typical' nature, or 'normalcy' of control in these relationships, and emphasizing the need to understand how control is perceived by both men and women in eastern sub-Saharan Africa. For instance, viewing controlling behaviour through a Western lens may result in evaluations that characterize control as unacceptable. Measurement of control in the DHS may not be capturing an "unacceptable" relationship dynamic but instead may be capturing an expected and accepted relationship dynamic. Moreover, conceptualizing *Less Severe IPV* as tolerable, or "good beatings" (i.e., justified as serving a social purpose, correctives to norm violations, expressions of caring/love, and not producing severe injuries) and *Severe Physical IPV* as unacceptable or "bad beatings" (i.e., not necessarily justifiable and producing injuries that impede daily functioning) emphasizes how gender norms and prescriptions can also help to account for distinctions in IPV experiences. The normalization and pervasiveness of control and less severe forms of violence suggests change will be difficult and that in order to impact experiences of IPV we "need comprehensive, multi-sectoral, long-term collaboration between governments and civil society al all levels of the ecological framework" (WHO & PAHO, 2012, p.7).

Limitations

Limitations of this research include that DHS data are based on individuals accurately self-disclosing abuse experiences and are therefore prone to potential

response biases; analyses are restricted to the items included in the survey, and the ways responses are recoded; community-level variables were derived from PSU's which may or may not be reflective of the actual community in which one resides and on aggregation of individual responses rather than measurement at the community level; and many essential variables were not available because they were not included in all three surveys. For instance, experiences of IPV have been found to vary based on ethnicity (Djamba & Kimuna, 2008; Kimuna, Tenkorang, & Djamba, 2018), and religion (Antai & Antai, 2008), however, ethnicity was not measured in all three countries.

Directions for Future Research

This research provides a starting point on which future research can build. This includes incorporating omitted variables as well as more accurate representations of community-level variables and macro-level measures. This analysis was limited to women, however there is also a need to do research on men using the social-ecological framework, as the same mechanisms that predispose women to IPV victimization (e.g., patriarchal cultural norms, acceptance of IPV, control of women), set the stage for men to perpetrate abusive and controlling behaviours. Future research should also incorporate outcome variables into LCA models to examine the relationships between health, well-being, or help-seeking and the different types of IPV, to strengthen our understanding of these relationships. Finally, although these findings are illustrative of a pattern of IPV experiences and the multi-level factors related to these distinct patterns of IPV, as Kishor (2005) has stressed, in order "to meaningfully document the story behind the numbers, other more qualitative studies need to be conducted" (p.8).

Conclusion

This analysis lends support for a 5-class model of IPV, as the LCA model remained the same, even with the addition of covariates. Taking this "nested ecological approach to [studying] violence…helps…grapple with the complexity of real life" (Heise, 1998, p. 285) and provides a profile not only of the different types of IPV but also of the multi-level factors related to these types. While these results should not be taken as a definitive typology of IPV across these countries, these findings are illustrative in stressing the importance of incorporating factors beyond the level of the individual to include relationship and societal level factors when exploring relationships between one's social-ecological environment and diversity in IPV experiences. These results will likely provide useful information to those involved in programme and policy development. The patterns of IPV, the impacts of multi-level covariates, and the form and role of gender norms in sub-Saharan Africa differ from those found in the West. It is therefore nonsensical to "copy and paste effective interventions from other areas of the globe," as problems in East Africa require an approach developed using an East African Lens (National Research Council, 2015). As Nnaemeka observes:

> African women are not problems to be solved. Like women everywhere, African women *have* problems… and are the only ones who can set [their own] priorities and agenda. Anyone who wishes to participate in our struggle must do so in the context of our agenda. (Nnaemeka, 2005, p. 57 in Akin-Aina, 2011)

Table 5.4d Stepwise Block of Micro, Meso, Exo, and Macro Level Factors on LCA Types

	Ref: No Violence (class 1) (a) (36 %)				Ref: Control Only (class 2) (b) (40%)			Ref: Less Severe Violence (Class 3) (c) (18%)		Ref: Severe Violence (Class 4) (3%) (d)
	Control Only (b)	Less Severe (c)	Most Severe (d)	Sexual (e)	Less Severe (c)	Most Severe (d)	Sexual (e)	Most severe (d)	Sexual (e)	Sexual (e)
R Not employed	-1.189	-0.159	-0.280	-1.926	1.030+	0.909	-0.737	-0.121	-1.767	-1.646
Edu (none) Primary	0.139	0.107	0.074	0.910**	-0.032	-0.064	0.772*	-0.032	0.804*	0.836*
Secondary	-0.090	-0.380	-0.782	0.802+	-0.289	-0.691	0.892+	-0.402	1.181*	1.584*
Higher	-0.272	-1.483*	-2.219*	0.420	-1.212	-1.947*	0.692	-0.735	1.903+	2.638*
Father abuses mother	0.778***	1.259***	1.258***	1.046***	0.481***	0.480**	0.269	-0.001	-0.213	-0.212
History of Violence	0.369+	0.884***	0.761**	0.736**	0.514***	0.392+	0.367	-0.123	-0.148	-0.025
Tolerates VAW	0.641***	0.915***	1.045***	0.545*	0.274*	0.404*	-0.095	0.130	-0.396	-0.499
Ed diff (Fhigher) same	-0.240	-0.425*	-0.793**	0.141	-0.185	-0.553*	0.381	-0.368	0.556	0.934*
Woman has Less	-0.237	-0.725**	-0.659*	0.283	-0.488*	-0.422	0.521	0.066	1.009*	0.943+
wealth (poor/mid) High	-0.020	-0.419*	-0.386	-0.106	-0.399*	-0.365	-0.086	0.034	0.313	0.280
Wk diff (Only F) Both	-0.676	0.584	0.912	0.239	1.260*	1.589*	0.437	0.329	-0.823	-1.152
Only H	-1.542	0.086	0.260	-1.509	1.628	1.802	0.033	0.174	-1.595	-1.769
Husband Drinks	0.987***	1.756***	2.130***	0.864***	0.769***	1.143***	-0.123	0.374*	-0.892***	-1.266***
Other wives	0.601***	0.727***	1.243***	0.656*	0.127	0.642**	0.055	0.515*	-0.071	-0.587+
D making (low) high	-0.614***	-0.563***	-0.554**	-1.362***	0.051	0.059	-0.748**	0.008	-0.799**	-0.808**
Rural Residency	-0.309	-0.439**	-0.753**	-0.699*	-0.130	-0.444+	-0.390	-0.314	-0.260	0.053
Comm. Wealth (poor) mid	0.007	0.087	0.548*	-0.882+	0.080	0.540*	-0.890+	0.460+	-0.969*	-1.430**
high	0.091	-0.304+	-0.326	0.162	-0.395*	-0.417	0.071	-0.022	0.466+	0.487
Community Tolerates VAW	0.511**	0.396**	0.576*	0.871**	-0.115	0.065	0.360	0.181	0.476	0.295
Country (Tan= ref) Kenya	-0.044	-0.100	0.383	0.655+	-0.056	0.427	0.699*	0.483	0.755*	0.272
Uganda	0.737	0.250	0.832	2.628	-0.487	0.095	1.891	0.582	2.378	1.796

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CHAPTER 6 : FINAL DISCUSSION AND CONCLUSIONS

Despite having one of the highest rates of IPV globally, Olayanju and colleagues (2013) point out that understanding IPV in sub-Saharan Africa is limited, especially concerning the potential diversity or distinctions in types of IPV. Violence against women is preventable, but as Fulu and Heise have stressed, "to develop and implement effective prevention and response interventions globally, researchers and practitioners need to understand the scale, scope, and nature of the problem." (2015, p. 5). With this sentiment in mind, the overarching objective of this dissertation was to explore, in-depth, the nature and diversity of IPV experiences among women in Kenya, Tanzania, and Uganda, and to examine the multi-level, social-ecological factors or influences related to women's experiences of distinct types or patterns of IPV. This goal was satisfied through three separate and connected exploratory analyses with the rationale for the research design, conceptual framework, analyses, and interpretation of results guided by existing theoretical and methodological approaches to the study of intimate partner violence (IPV). The results of this research contribute to our knowledge and understanding of the heterogeneity of IPV experiences among women in sub-Saharan Africa, focusing on a regional sub-population of women. Three primary research objectives guided this research:

1) To describe the ways women in Kenya, Tanzania, and Uganda experience IPV by examining the frequency and nature of the violence experienced and its similarity within and across the countries.

2) To examine the multifaceted nature of IPV by using Latent Class Analysis (LCA) to identify the presence of a latent class structure of IPV among women in eastern sub-Saharan Africa. Specifically, to identify distinct types or classes of IPV within and/or across these countries.

3) To take an ecological approach to examine IPV by looking at the simultaneous effects of individual-, relationship-, community-, and country-level factors on IPV, and more specifically on class membership (as identified in objective two). Particularly, to identify factors related to membership in each of the IPV classes.

Chapters three through five correspond with the above-stated objectives and build on each other, with each chapter adding additional depth and focus. Underscoring the findings and results across analyses is the fruitfulness of latent class analysis as an analytical approach and the utility of the social-ecological model as a guiding framework. LCA facilitated the identification of diverse types or classes of IPV, while the social-ecological model facilitated the synthesis of multiple theoretical perspectives, approaches, and orientations to the study of IPV, and helped to place distinct types/classes of IPV into local and historical contexts. Using latent class analysis and the social-ecological model as an organizing approach to study IPV in sub-Saharan Africa adds to our knowledge on the scale, scope, and nature of IPV.

Although there are multiple findings and subsequent interpretations, four powerful takeaway messages are present across all analyses. First and foremost is that the data provided consistent support for studying IPV among women across Kenya, Tanzania, and Uganda collectively. Notably, the nature and structure of IPV experiences

are similar, despite some within-and cross-country differences, and the patterns of IPV

are revealed as a multi-faceted construct consisting of distinct and separate types of

IPV. Finding consistent support for studying these three countries together is

instrumental. It adds to our understanding of IPV across regional sub-groups and sub-

populations and can be informative in the development of regionally appropriate or

relevant interventions. Second, what emerges across countries is the pervasive presence

of control, a high prevalence of relatively minor forms of physical IPV, and their

connections with gender norms and beliefs. Third, is the usefulness and importance of

the ecological model to understanding intersections and influences across multiple

levels–personal, relational, communal, and societal--and how they comprise the social

context in which IPV takes place. Fourth and finally, is the limitations of western models

and methodologies, including limitations in the interpretation of questions by

participants and results by researchers.

A descriptive approach to examine the nature of intimate partner violence and

to assess whether the violence looks different or similar for women within and across

countries was the focus of Chapter Three: Characteristics of IPV in Eastern sub-Saharan

Africa (objective one). At least one-third of all women in this sample reported

experiencing emotional, physical, and/or sexual abuse within the past 12 months and up

to three-quarters reported controlling behaviours by their husbands. Control, followed

by less severe forms of abuse (e.g., slapping) were the most frequently reported forms

of abuse across all three countries. This is quite distinct from experiences identified in

the Western world[15] which are characterized by higher rates of emotional abuse, with

or without control (Ansara & Hindin, 2010; Burczycka, 2016; Dutton, 1995; Johnson,

1995; Johnson & Leone, 2005; Lysova, Dim, & Dutton, 2019; Straus & Smith, 1990). For

women in this sample, control was omnipresent, and physical abuse was more prevalent

than emotional abuse, underscoring a crucial distinction in findings cross-culturally.

Although not "testing" the application of any particular theory or explanation for

violence, by viewing IPV "as a multifaceted phenomenon grounded in an inter-play

among personal, situational, and socio-cultural factors" (Lawson, 2012, p. 263), the

second and third analyses in this dissertation (chapter four and five) integrate and

bridge together some of the theoretical, methodological, and practical knowledge and

developments made by researchers studying IPV from a wide variety of perspectives

and contexts. This approach allowed for the model-building process and the subsequent

analyses to account not only for diverse IPV experiences but also diverse perspectives to

studying IPV.

In Chapter 4: Exploring Diversity in Patterns of IPV in Sub-Saharan Africa: A

Latent Class Analysis (objective 2), latent class analysis (LCA) was used to model the

diversity of IPV experiences and to characterize distinct types of IPV. LCA demonstrated

that the IPV experiences of women in this sample were not homogenous. Although

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[15] While there are multiple terms used to reference different world regions (e.g., global north/global south, developed/developing, high-income/low-income, western/non-western), for simplicity, the terms "west" "western" or "global west" are used interchangeably throughout this dissertation to refer to wealthier global regions including Europe, the Americas, Australia, and New Zealand.

some cross-country differences were evident, the relatively same 5-class structure was modeled for women in Kenya, Tanzania, and Uganda, suggesting that the types of IPV modelled are reasonable representations of women's experiences of IPV across countries. The largest proportion of women were likely to be experiencing *No Violence* (44%) and the remainder clustered into four distinct types of IPV: *Predominantly Control* (37%), *Less Severe Physical IPV* (13%), *Severe Physical IPV* (3%) and *Sexual IPV* (3%).

Of note is that controlling behaviours were not only the sole identifying characteristic of one of the classes, but also emerged as a distinct characteristic across the three other classes or types of IPV, and also had a 48% likelihood of being experienced by women who were not experiencing any of the IPV types. Some research conducted in the West shows strong associations between control and fear suggesting that instilling fear in a wife may be the motivation behind controlling behaviours (Clements & Holtzworth-Munroe, 2009; Jaquier & Sullivan, 2014). The lack of such an association in these data are counter to the notion that eliciting fear is a motivation for control. Instead, controlling behaviours may merely be characteristic patterns of 'typical' wife-husband interactions and relationships and thus not necessarily be associated with fear. These findings support assertions regarding the normalcy of and pervasiveness of men's control over their wives in this region (Adjei, 2012; Bingeheimer, 2010; Cubbins et al., 2014; Jakobsen, 2014; Swart, 2017).

Prevailing gender norms place men in superior positions over women (Jakobsen, 2014; Jayachandran, 2015; Kimuna, Tenkorang, & Djamba, 2018), and normalize and tolerate violence as an acceptable tool to elicit and perform masculinity, to correct a

wife's failure to perform femininity (Jakobsen, 2014; McCloskey et al., 2016), and to prescribe the expression of love and affection in ways consistent with religious or cultural norms (Ilika, 2005). Within the local context of these gender norms, *Less Severe Physical IPV* and *Severe Physical IPV* may reflect, respectively, what Jakobsen (2014) has termed "good beatings" and "bad beatings," and what others (Adjei, 2015; National Research Council, 2015; Ilika, 2005; McCloskey et al., 2016; Swart, 2017; Tsai et al., 2017) have identified as distinctions between acceptable or tolerable and unacceptable or intolerable forms of husband to wife abuse (e.g., evaluations may vary based on the perceived motivations for a husband's violence). Distinct patterns of IPV, with varying degrees of severity and potential normative functions, suggest that pathways to help-seeking from the police or other service providers are likely to vary across classes of IPV, and experiencing distinct types of IPV may necessitate distinct types of prevention and intervention efforts.

The third and final analysis, Chapter 5: Exploring the Diverse Connections Between Multi-Level Factors and Types of Intimate Partner Violence (IPV): Applying an Ecological Framework to studying IPV in Sub-Saharan Africa illuminates the importance of taking into account multi-level factors in one's social-ecological environment. Factors at all levels of the model were significantly related to IPV experiences, as well as distinctions between the different types of IPV, further supporting the identified class structure and types of IPV. Individual and relationship level factors provided the most detailed information in terms of distinctions in vulnerability for different IPV types, while community-level factors influenced the context in which women experienced

abuse. Findings show the crucial importance of accounting for factors beyond the

individual level to ensure associations among and influences exerted by different social-

ecological layers are neither omitted nor distorted. For instance, although women's

empowerment via individual education, employment, or decision-making in a

relationship are somewhat protective against IPV, controlling for factors at other levels

and examining their association with distinct types of IPV leads to a different conclusion.

It becomes apparent that individual empowerment of women (via employment,

education, and/or decision-making in the household) is not enough to protect women

from IPV, and in some cases, it can increase the likelihood of IPV (Cools & Kotsadam,

2017; Tandrayen-Ragoobur, 2018).

Highly intertwined with and likely influencing the relationships between multi-

level factors and IPV experiences are cultural norms that emphasize male superiority

over females (Jakobsen, 2014; Jayachandran, 2015; Kimuna, Tenkorang, & Djamba,

2018; Svenkeson, 2018) and that encourage and perpetuate distinct gender roles in the

private and public spheres (Berger, 2014; Burrill, Roberts, & Thornberry, 2010; Fallon,

2008; Hall, 2015; Musandu, 2012). These norms cut across tribal and ethnic groups,

holding men and women to prescribed modes of behaviour that carry punishment and

stigma when violated (Barnett, Maticka-Tyndale, & Trocaire Kenya, 2016). A primary

notion is that wives are expected to obey their husbands and to act and appear

submissive; whereas, husbands are expected to be decision-makers in complete and

continual control of their wives and their households (Adjei, 2012; Bingeheimer, 2010;

Cubbins et al., 2014; Jakobsen, 2014; Swart, 2017). Stemming from and interacting with

these norms to elicit protection or vulnerability for IPV are factors at all levels of the

ecological model including global and cultural discourses regarding notions of

masculinity and femininity and appropriate ways of expressing these characteristics

(Fulu & Miedema, 2015), as well as attitudes and tolerance towards IPV as an

acceptable tool to correct a wife's "erring ways" (Adjei, 2015) at an individual level,

community-level, and at the societal-level (Fulu & Miedema, 2015; Htun & Weldon,

2012; Pierotti, 2013; Weldon & Htun, 2013).

The historical, political, economic, and social differences between the North

American and African contexts raise questions as to whether the approaches, theories,

and interventions developed out of culturally and geographically specific norms and

ways of conceptualizing and addressing violence against women in the western world

are relevant to experiences in Africa (Bowman, 2003; Goodmark, 2015). As identified by

several researchers, there is a gap in the research exploring how theories or

explanations for violence developed elsewhere can help to explain or account for the

nature and prevalence of violence in Africa (Bowman, 2003; Goodmark, 2015; Olayanju,

Naguib, Nguyen, Bali, & Bung, 2013).

The LCA model and the identified classes of IPV differ from much of the research

conducted in the West, especially research using variable-centered approaches to

studying IPV. Although similar patterns of severe physical IPV have been identified in

research cross-culturally, the remaining class structures differ from those in the West.

The key distinction cross-culturally is the pervasive feature of control across all classes,

including the *No Violence* class, where there was a 48% probability of endorsing

controlling behaviours. The North American pattern of IPV characterized by relatively minor forms of husband-to-wife physical and/or emotional abuse <u>in the absence</u> of control and fear, identified most often through large-scale survey research (Johnson, 1995; Johnson & Leone, 2005; Macmillan & Gartner, 1999; Dutton, 1995; Kelly & Johnson, 2008; Lawson, 2012; Lysova, Dim, & Dutton, 2019; Straus & Smith, 1990), is not replicated here. Also distinctive to this analysis is the identification of a class of violence defined by *Sexual IPV* and controlling behaviours, with a low likelihood of physical abuse. Research in the West typically either groups sexual and physical IPV together omitting the identification of distinct experiences or identifies patterns of sexual IPV that co-occur with physical IPV. So, while deriving indicators of IPV for an LCA model from the global literature (including in the West) is useful, the theoretical assumptions and explanations for IPV that have been developed in the West are not necessarily appropriate in other world regions. These findings stress the need for researchers and those who design prevention and intervention programs to understand the local contexts for which their interventions are designed, including the norms that encourage and perpetuate the social conditions that lead to abuse. Without recognizing the context-specific conditions that lead to and encourage IPV, prevention and intervention efforts will fall short.

Limitations and Suggestions for Future Research

Limitations of this research relate to the data, methods, and interpretation of results. DHS data are cross-sectional and based on cluster sampling. For these analyses, three different countries, sampled at different periods, were pooled into one large

dataset. As such, while these experiences are reflective of the women sampled, there is no actual 'population' which these data resemble. Instead, pooled results represent a descriptive approximation of the collective abuse experiences among women in this regional subgroup. Other limitations include that responses to DHS questions are based on individuals accurately self-disclosing abuse experiences and are therefore prone to potential response biases such as unwillingness to disclose, inaccurate memory, and differences in interpretation of questions. Also, measures of abuse are restricted to the items included in the survey. For instance, experiences of IPV have been found to vary based on ethnicity (Djamba & Kimuna, 2008; Kimuna, Tenkorang, & Djamba, 2018), and religion (Antai & Antai, 2008). Since these variables were not assessed in all three countries they were not included in these analyses.

Although the physical and sexual abuse items in the DHS have been standardized, tested, and updated to ensure their validity and cross-country equivalency in interpretation (Kishor & Johnson, 2004; Kishor, 2005; Macquarrie, Winter, & Kishor, 2014), the items measuring emotional abuse may be more subjective or not as applicable in different cultural settings (Kishor & Johnson, 2004; Kishor, 2005). For instance, while responding to the physical and sexual abuse items does not require women to label the behaviour as abusive, the emotional abuse items require some element of interpretation, especially when it comes to acknowledging "humiliating" or "insulting" experiences (Macquarrie, Winter, & Kishor, 2014). These subjective interpretations could be why emotional abuse is not reported in as high proportions as evidenced in the West. Thus, while a distinct pattern of IPV was identified that is

consistent with the types of IPV reported in a factor analysis by Macquarrie, Winter, and Kishor (2014), the potential measurement issues related to the emotional abuse items, coupled with the pervasiveness of control leads to the question as to whether or not these differences and distinctions cross-culturally are due to actual differences or a result of measurement bias. Do women in sub-Saharan Africa interpret "humiliating" or "insulting" instances similarly to women in the West?

Controlling behaviours were measured with items inquiring whether or not a woman's husband/partner "gets jealous if/when she talks to other men," "tries to limit her contact with family," "has accused her of unfaithfulness," or "insists on knowing where she is at all times." The high prevalence of women who report experiencing these behaviours, independent of fear and other forms of violence, raises the question of whether control is viewed negatively or problematically. Moreover, are gender norms influencing how women interpret questions and provide their responses? Some research has found that women in these regions interpret and use the terms "beating" and "disciplining" interchangeably (Maticka-Tyndale, Barnett & Trocaire Kenya, 2019), suggesting possible distinctions in understanding between the West and sub-Saharan Africa. Although these findings add to our knowledge base and understanding of the diversity in IPV experiences and the multi-level factors related to distinct types of IPV in sub-Saharan Africa, as Kishor (2005) has indicated, in order "to meaningfully document the story behind the numbers, other more qualitative studies need to be conducted" (p.8).

While this exploratory LCA suggests its approach can be useful in assessing IPV experiences among women in these countries, it is merely the first step. Future research should include qualitative methods that incorporate women's voices in an attempt to explore in greater depth what women would characterize as IPV, and what they consider abusive in intimate relationships. Moreover, future research should also include culturally appropriate and theoretically informed covariates as potential predictors in an LCA model to understand the broader picture of IPV experiences, and the factors that are related to diverse types.

Conclusion

The analyses and results presented here support the conclusion that there are different types of IPV experienced among women in Eastern sub-Saharan Africa and that the experience of IPV and the type of IPV is influenced by factors from across the social-ecological context. In addition, both the types and their influences are different than what has been found in the West. This suggests that in order to effectively address IPV regionally, relevant actions at all levels of the social-ecological environment are required. These include laws, policies, programs, local interventions and initiatives, and social movements (local, societal, and global). These diverse connections between IPV and one's social ecology suggest there is no single intervention or initiative that can effectively address all IPV. Single, context-specific interventions and initiatives can, however, become part of a larger force for change. This change, however, must be rooted in local contexts and approached through an East African lens (National Research Council, 2015).

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APPENDIX A: MATERIALS FOR CHAPTER ONE

Figure A.1: Map of Kenya, Tanzania and Uganda

APPENDIX B: MATERIALS FOR CHAPTER THREE

Table 3.2a: Detailed Abuse Items

	Kenya	Tanzania	Uganda	Total
Humiliated by Partner	13.1%	10.9%	15.2%	13.1 %
Threatened with harm	10.0%	6.2%	15.1%	10.5 %
Insulted/made to feel bad	19.4%	26.6%	25.8%	24.0%
Emotional Abuse	**23.9 %**	**28.1 %**	**31.6 %**	**28.0 %**
Pushed, Shook, had something thrown at	13.1%	11.2%	14.5%	12. 9 %
Been slapped	17.8%	23.5%	20.0%	20.4 %
Arm Twisted or Pulled Hair	6.3%	4.5%	7.1%	6.0 %
Punched or hit by something harmful	7.6 %	13.1 %	9.9 %	10.2 %
Less Severe Physical Abuse	**35.6 %**	**38.9 %**	**41.2 %**	**38.7 %**
Kicked / dragged	8.7%	10.3%	9.4%	9.5 %
Strangled or burnt	2.5%	2.9%	3.3%	2.9 %
Threated w/weapon	3.4%	2.7%	3.8%	3.3 %
Severe Physical Abuse	**16.8 %**	**17.7 %**	**22.0 %**	**18. 9 %**
Forced into sex	8.8%	9.5%	18.9%	12.6%
Forced into other sexual Acts	4.2%	2.8%	4.1%	3. 7 %
Physically forced to perform sex acts	3.4%	4.4%	7.6%	5.2 %
Sexual Abuse	**13.3 %**	**13.6 %**	**27.5 %**	**18.3 %**
Fear	**35.9 %**	**44.0 %**	**49. 6 %**	**43.4 %**
Composite Control Measures jealous if talks with other men	62.9 %	74.0 %	74.1 %	70.5 %
accuses of unfaithfulness	53.2 %	60.9 %	59.9 %	
tries to limit contact with	22.8 %	30.3 %	34.2 %	
family	11. 7%	11.4 %	20.4 %	
insists on knowing where	41.2 %	57.0 %	55.7 %	
Achieved Control	20.7 %	17.3 %	28.6 %	22.4 %
Minor Injury	32.1 %	68.7 %	32.1 %	43.5 %
Moderate Injury	18.4 %	10.9 %	18.7 %	16.2 %
Severe Injury	9.5 %	14.6 %	13.7 %	12.8 %

Table 3.2b Measures of Association Among Abuse Items (Phi φ)

		Tanzania				Uganda				Kenya			
		Emotional	Less Severe	Severe Physical	Sexual	Emotional	Less Severe	Severe Physical	Sexual	Emotional	Less Severe	Severe Physical	Sexual
Kenya	Emotional	0.044 ***											
	Less Severe Physical		0.034 **										
	Severe Physical			0.013									
	Sexual				0.005								
Tanzania	Emotional					0.038 ***							
	Less Severe Physical						0.024 *						
	Severe Physical							0.054 ***					
	Sexual								0.171 ***				
Uganda	Emotional									0.085 ***			
	Less Severe Physical										0.058 ***		
	Severe Physical											0.067 ***	
	Sexual												0.175 ***

Table 3.2c Measures of Association Between Control, Fear, & Injuries

		Tanzania					Uganda					Kenya				
		Control	Fear	Minor Injury	Mod Injury	Severe Injury	Control	Fear	Minor Injury	Mod Injury	Severe Injury	Control	Fear	Minor Injury	Mod Injury	Severe Injury
Kenya	Control	0.120 ***														
	Fear		0.082 ***													
	Minor Injury			0.365 ***												
	Moderate Injury				0.105 ***											
	Severe Injury					0.077 ***										
Tanzania	Control						0.000									
	Fear							0.056 ***								
	Minor Injury								0.363 ***							
	Moderate Injury									0.107 ***						
	Severe Injury										0.012					
Uganda	Control											0.120 ***				
	Fear												0.137 ***			
	Minor Injury													0.001		
	Moderate Injury														0.004	
	Severe Injury															0.063 ***

APPENDIX C: MATERIALS FOR CHAPTER 4

Individual Country-Level Models

Table 4.1c Model Fit Indexes for Class Enumeration for IPV Types for Women in Kenya (n = 4, 517)

K	LL	Npar	LR χ^2	Df	P	AIC	BIC	SS aBIC	CAIC	AWE	LRTS	Adj. LMR p	BF	cmP (K)
1	-6399.64	8	844.05	238	0	12815.28	12858.81	12833.396	12866.81	12942.34	1458.7	<.01	<.01	<.01
2	-5659.41	17	491.21	238	0	11352.83	11445.33	11391.322	11462.33	11622.83	322.29	<.05	<.01	<.01
3	-5498.27	26	262.20	229	0.06	11048.53	11190.01	11107.41	11216.01	**11461.48**	126.03	<.05	<.01	<.01
4	-5435.25	35	171.74	220	0.99	10940.51	**11130.95**	11019.76	**11165.95**	11496.40	60.61	0.54	<.01	**>.95**
5	-5404.95	44	127.46	211	1.00	**10897.90**	11137.32	**10997.53**	11181.32	11596.73	23.75	0.36	**>100**	0.36
6	-5393.07	53	109.00	201	1.00	**10892.15**	11180.54	11012.163	11233.54	11733.93	13.38	0.80	>100	<.05
7	-5386.39	62	98.28	193	1.00	10896.77	11234.13	11037.168	11296.13	11881.50	------	------	------	<.01

Table 4.2c Model Fit Indexes for Class Enumeration for IPV Types for Women in Uganda (n = 1,705)

K	LL	Npar	LR χ^2	Df	P	AIC	BIC	SS aBIC	CAIC	AWE	LRTS	Adj. LM R p	BF	cmP (K)
1	-15434	8	666.673	231	0	30883.98	30935.3	30909.876	30943.3	31026.62	4186.72	<.01	<.01	<.01
2	-13340.6	17	505.752	234	0	26715.26	26824.32	26770.299	26841.32	27018.38	849.61	<.01	<.01	<.01
3	-12915.8	26	396.229	224	0	25883.65	26050.44	25967.826	26076.44	26347.24	201.69	0.01	<.01	<.01
4	-12815.0	35	281.451	215	0.0	25699.97	25924.5	25813.279	25959.5	**26324.03**	117.95	**0.12**	<.01	<.01
5	**-12756.0**	44	217.041	207	**0.3**	25600.02	**25882.29**	25742.47	**25926.29**	26384.55	60.95	**0.33**	**>100**	**>.99**
6	**-12725.5**	53	178.873	198	0.8	25557.07	25897.07	**25728.66**	25950.07	26502.08	29.63	0.57	>100	<.01
7	-12710.7	62	159.511	189	0.9	25545.44	25943.18	25746.169	26005.18	26650.92	30.72	0.76	>100	<.01
8	-12695.0	71	139.095	180	1.0	25531.96	25987.44	25761.829	26058.44	26797.92	14.556	0.71	>100	<.01
9	-12686.2	80	126.874	171	1.0	25532.45	26045.67	25791.457	26125.67	26958.88	------	------	------	<.01

Table 4.3c Model Fit Indexes for Class Enumeration for IPV Types for Women in Tanzania (n= 7, 597)

K	LL	Npar	LR ?²	Df	P	AIC	BIC	SS aBIC	CAIC	AWE	K classes vs. K+1 classes			
											LRTS	Adj. LM R p	BF	cmP (K)
1	-26339.53	8	535.377	240	0	52695.07	52750.55	52725.129	52758.55	52846.03	6904.13	<.01	<.01	<.01
2	-22887.47	17	368.015	237	0	45808.94	45926.84	45872.821	45943.84	46129.75	1233.91	<.01	<.01	<.01
3	-22270.52	26	269.418	228	0.03	44593.03	44773.36	44690.735	44799.36	45083.68	468.82	<.01	<.01	<.01
4	-22036.12	35	374.966	220	0.000	44142.22	44384.96	44273.738	44419.96	44802.70	194.40	0.01	<.01	<.01
5	-21938.91	44	264.738	211	0.007	43965.82	44270.98	44131.155	44314.98	44796.14	125.30	0.18	<.01	>.99
6	-21876.26	53	191.687	191	0.687	43858.52	44226.10	44057.679	44279.10	44858.68	73.41	0.41	>30	>.99
7	-21839.56	62	73.831	127	1.000	43803.11	44233.11	44036.09	44295.11	44973.11	18.12	0.77	>100	>.99
8	-21830.50	71	136.359	184	0.996	43802.99	44295.42	44069.792	44366.42	45142.84	20.42	0.52	>100	<.01
9	-21819.43	80	122.175	175	0.991	43798.85	44353.69	44099.471	44433.69	45308.54	--------	------	------	<.01

Table 4.4c Latent Class Model of IPV Experiences[16]

	Combined Country: 5- Class Model				
	Class 1 No Violence (44 %)	Class 2 Primarily Control (37 %)	Class 3 Less Severe Physical IPV (13 %)	Class 4 Severe Physical IPV (3 %)	Class 5 Sexual IPV (3 %)
Emotional abuse	0.03	0.29	**0.79**	**0.90**	0.64
Minor Physical abuse	0.04	0.51	**0.99**	**1.00**	0.39
Severe Physical abuse	0.00	0.01	0.53	**0.71**	0.00
Physically forced into unwanted sex	0.01	0.02	0.28	**0.96**	**0.79**
Forced into other unwanted sex acts	0.00	0.00	0.01	**0.74**	0.26
Physically forced to perform sex acts	0.00	0.00	0.02	**0.91**	0.39
Controlling behaviours	0.48	**0.86**	**0.90**	**0.95**	**0.87**
Fear	0.16	0.56	**0.77**	**0.90**	0.49

Table 4.4c is replicated from Peirone, 2019 and is included here for reference purposes.

Table 4.5c Five-class latent class models of IPV for women in Kenya, Tanzania, and Uganda

	KENYA					UGANDA					TANZANIA				
	Class 1	Class 2	Class 3	Class 4	Class 5	Class 1	Class 2	Class 3	Class 4	Class 5	Class 1	Class 2	Class 3	Class 4	Class 5
	No IPV	Control	Less Severe IPV	Severe IPV	Sexual & Control	No IPV	Control	Less Severe IPV	Severe IPV	Sexual & Control	No IPV	Control & Fear	Less Severe IPV	Severe IPV	Sexual IPV
	(48%)	(35%)	(13%)	(3%)	(2%)	(43%)	(36%)	(12%)	(5%)	(4%)	(46%)	(23%)	(14%)	(12%)	(4%)
Emotional Abuse	0.02	0.29	0.73	0.95	0.65	0.05	0.38	0.77	0.94	0.64	0.02	0.11	0.81	0.80	0.81
Minor Physical Abuse	0.04	0.51	0.99	1.00	0.37	0.07	0.57	0.99	1.00	0.34	0.07	0.53	0.52	0.89	1.00
Severe Physical Abuse	0.00	0.01	0.50	0.71	0.00	0.00	0.01	0.46	0.78	0.00	0.00	0.00	0.03	0.54	0.62
Physically forced sex	0.00	0.04	0.26	0.97	0.66	0.03	0.12	0.41	0.90	1.00	0.01	0.00	0.16	0.96	0.25
Forced into sex acts	0.00	0.00	0.03	0.86	0.75	0.00	0.01	0.00	0.61	0.31	0.00	0.00	0.01	0.61	0.01
Physically forced sex acts	0.00	0.00	0.02	0.85	0.45	0.01	0.02	0.00	0.79	0.73	0.00	0.01	0.00	0.98	0.03
Controlling behaviours	0.40	0.81	0.88	0.98	0.87	0.05	0.93	0.88	0.96	0.90	0.56	0.92	0.83	0.93	0.92
Fearful	0.13	0.49	0.74	0.90	0.44	0.24	0.63	0.88	0.91	0.48	0.17	0.72	0.42	0.82	0.82
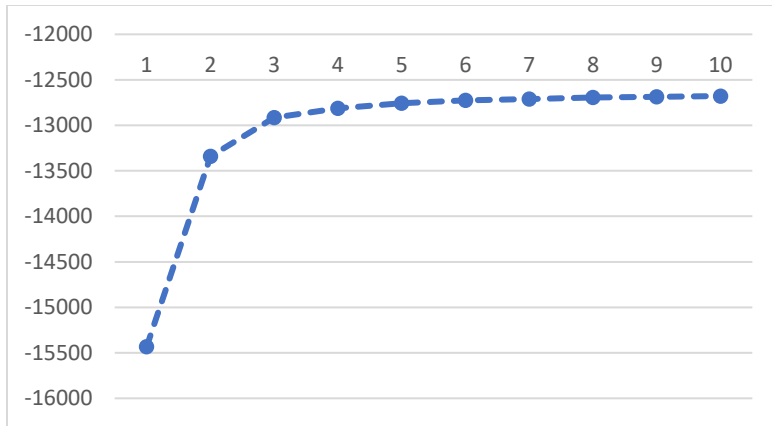
Figure 4.3c Scree Plot of Log Likelihood Values for K Models - Kenya
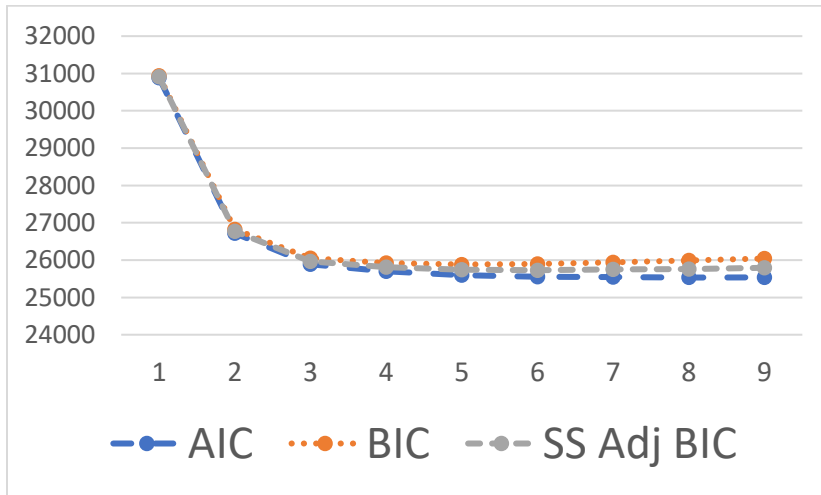
Figure 4.4c Scree Plot AIC, BIC, & Adjusted BIC Values for K Models - Kenya
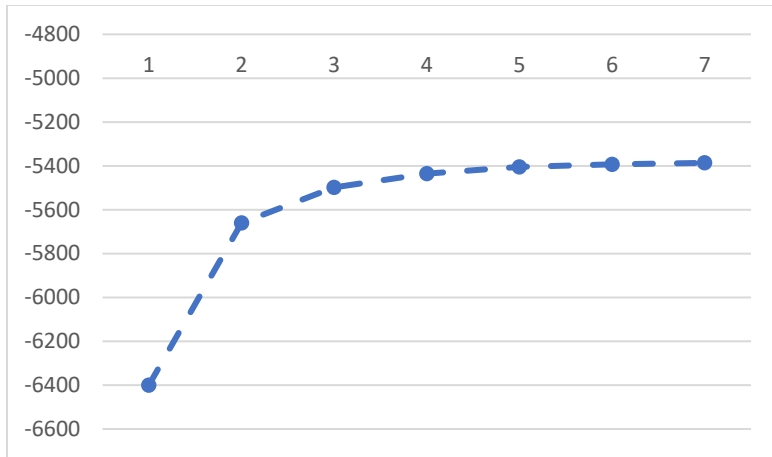
Figure 4.5c Scree Plot of Log Likelihood Values for Uganda K-Models
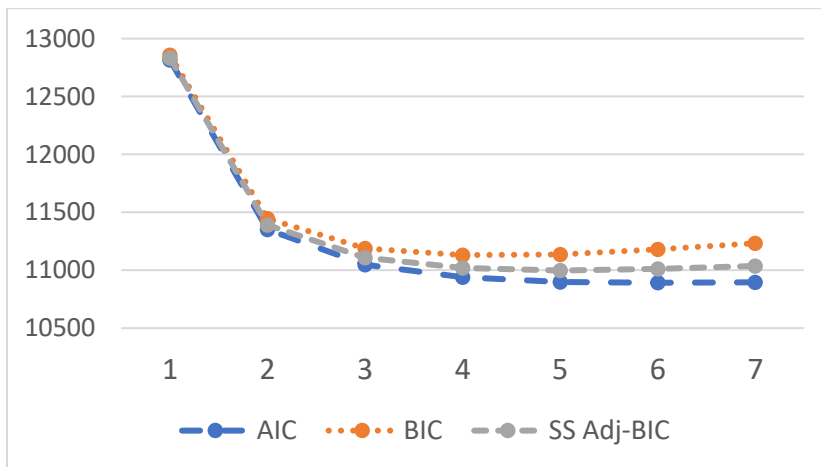
Figure 4.6c Scree Plot AIC, BIC, & Adjusted BIC for Uganda K-Models
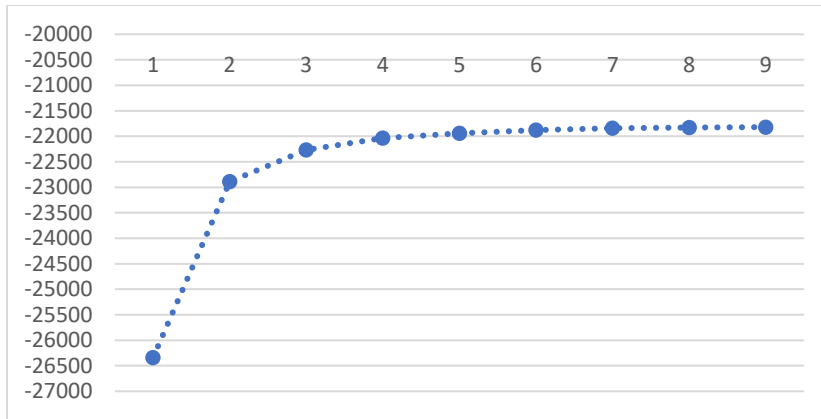
Figure 4.7c Scree Plot of Log Likelihood Values for Tanzania K Models
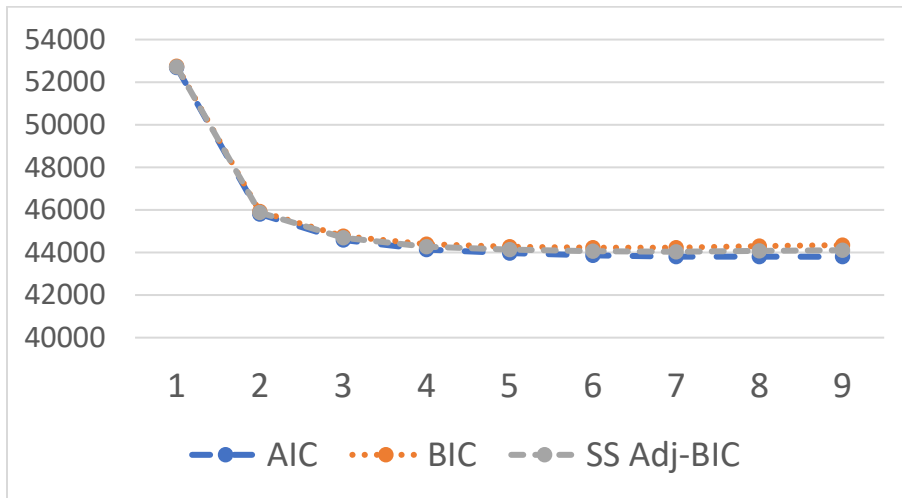
Figure 4.8c Scree Plot AIC, BIC, & Adjusted BIC for Tanzania K-Models

APPENDIX D: MATERIALS FOR CHAPTER 5

Influence of Each Ecological Level on Patterns of IPV

Table 5.3a: Block 1: Micro-Level Factors/Individual Level Factors

	Ref: No Violence (class 1) (a) (43 %)				Ref: Control Only (class 2) (b) (36%)			Ref: Less Severe Violence (Class 3) (c) (14%)		Ref: Severe Violence (Class 4) (3 %) (d)
	Control Only (b)	Less Severe (c)	Most Severe (d)	Sexual (e)	Less Severe (c)	Most Severe (d)	Sexual (e)	Most severe (d)	Sexual (e)	Sexual (e)
Age: (young = ref) Midage	0.256*	0.136	0.074	-0.145	-0.120	-0.181	-0.401+	-0.061	-0.280	-0.219
Older	0.362**	-0.024	-0.033	-0.670*	-0.386*	-0.395*	-1.032***	-0.010	-0.647*	-0.637+
R Not employed	-0.516***	-0.724***	-0.866***	-0.924***	-0.208	-0.350	-0.408	-0.142	-0.200	-0.058
Edu (none = ref) Primary	0.062	0.009	-0.049	0.724*	-0.054	-0.112	0.661*	-0.058	0.715*	0.773*
Secondary	-0.214	-0.575**	-0.997**	0.522	-0.362+	-0.783**	0.735*	-0.422	1.097**	1.519**
Higher	-0.787*	-1.172+	-2.328**	0.616	-0.385	-1.541*	1.403*	-1.156	1.788*	2.944**
Father abuses mother	0.869***	1.092***	1.099***	1.045***	0.223+	0.230	0.177	-0.007	-0.046	-0.053
History of Violence	0.370*	0.595***	0.638**	0.879***	0.225	0.269	0.510*	0.044	0.285	0.241
VAW ever	0.648***	0.805***	0.648***	0.737***	0.157	0.003	0.089	-0.157	-0.068	0.089

Table 5.3b Block 2: Meso-Level Factors/Relationship Level Factors

	Ref: No Violence (class 1) (a) (53%)				Ref: Control Only (class 2) (b) (23%)			Ref: Less Severe Violence (Class 3) (c) (18%)		Ref: Severe Violence (Class 4) (4%) (d)
	Control Only (b)	Less Severe (c)	Most Severe (d)	Sexual (e)	Less Severe (c)	Most Severe (d)	Sexual (e)	Most severe (d)	Sexual (e)	Sexual (e)
Age dif(older = ref) Hsame	0.110	0.140	0.320	0.165	0.029	0.210	0.055	0.180	0.026	-0.154
H Younger	-0.124	0.239	0.350	0.061	0.363+	0.475+	0.186	0.112	-0.177	-0.289
Edu diff (F higher = ref) Same	-0.018	-0.116	-0.376	0.142	-0.098	-0.358	0.160	-0.260	0.258	0.518
Woman has Less	-0.032	-0.367*	-0.102	0.058	-0.335+	-0.070	0.091	0.264	0.425	0.161
wealth (poor = ref) middle	-0.023	-0.053	-0.129	0.372	-0.030	-0.106	0.395	-0.076	0.425	0.501
High	-0.121	-0.868***	-0.830***	0.398+	-0.746***	-0.709**	0.519*	0.037	1.266***	1.229***
Work diff (Only F= ref) Both	0.514***	0.729***	0.992**	1.366**	0.215	0.479	0.852+	0.264	0.637	0.373
Only H	0.430+	0.711**	1.173**	2.628***	0.281	0.743*	2.197***	0.46	1.917***	1.454*
Husband Drinks	0.888***	1.601***	2.040***	0.711**	0.713***	1.153***	-0.177	0.439*	-0.890***	-1.330***
Female Headed Household	-0.317*	-0.305*	-0.506*	-0.329	0.012	-0.189	-0.012	-0.201	-0.024	0.178
Other wives	0.636***	0.747***	1.265***	0.626**	0.110	0.628**	-0.011	0.518*	-0.121	-0.639*
D making (ref = no) Low	-0.013	-0.073	-0.049	-0.229	-0.060	-0.036	-0.216	0.024	-0.156	-0.179
high	-0.749***	-0.789**	-0.726*	-1.554***	-0.040	0.023	-8.05**	0.063	-0.765**	-0.828*

Table 5.3c Block 3: Exo-Level Factors/Community Level Factors

	Ref: No Violence (class 1) (a) (44%)				Ref: Control Only (class 2) (b) (38%)			Ref: Less Severe Violence (Class 3) (c) (14%)		Ref: Severe Violence (Class 4) (3%) (d)
	Control Only (b)	Less Severe (c)	Most Severe (d)	Sexual (e)	Less Severe (c)	Most Severe (d)	Sexual (e)	Most severe (d)	Sexual (e)	Sexual (e)
Rural Residency	0.006	-0.130	-0.589**	0.013	-0.109	-0.592**	0.007	-0.786*	0.116	0.602*
Comm. Wealth (poor = r) mid	0.007	-0.072	0.522*	-0.831*	-0.079	0.515*	-0.838*	0.594**	-0.759+	-1.353**
high	-0.007	-0.718***	-0.347+	0.021	-0.711***	-0.340	0.028	0.371	0.739**	0.368
Average years educ of women	-0.012	-0.027	-0.114**	-0.008	-0.015	-0.102**	0.004	-0.087*	0.019	0.106+
Community Tolerates VAW	0.705***	0.507***	0.435**	0.693**	-0.199+	-0.271+	-0.013	-0.072	0.186	0.258

Table 5.3d Block 4: Macro-Level Factors/Country Level Factors

	Ref: No Violence (class 1) (a) (42%)				Ref: Control Only (class 2) (b) (36%)			Ref: Less Severe Violence (Class 3) (c) (15%)		Ref: Severe Violence (Class 4) (3 %) (d)
	Control Only (b)	Less Severe (c)	Most Severe (d)	Sexual (e)	Less Severe (c)	Most Severe (d)	Sexual (e)	Most severe (d)	Sexual (e)	Sexual (e)
Country (Tan= ref) Kenya	-0.612***	-0.408***	-0.386*	-0.189	0.204	0.226	0.423+	0.022	0.219	0.197
Uganda	0.081	0.108	0.493*	1.469***	0.027	0.412*	1.389***	0.385+	1.362***	0.977***

Influence of Combined Ecological Levels on Patterns of IPV: Stepwise results

Table 5.4a Block 1: Micro-level Factors

Block 1 Micro		Ref: No Violence (class 1) (a) (43 %)				Ref: Control Only (class 2) (b) (36%)			Ref: Less Severe Violence (Class 3) (c) (14%)		Ref: Severe Violence (Class 4) (3 %) (d)
		Control Only (b)	Less Severe (c)	Most Severe (d)	Sexual (e)	Less Severe (c)	Most Severe (d)	Sexual (e)	Most severe (d)	Sexual (e)	Sexual (e)
Age: (young = ref)	Midage	0.256*	0.136	0.074	-0.145	-0.120	-0.181	-0.401+	-0.061	-0.280	-0.219
	Older	0.362**	-0.024	-0.033	-0.670*	-0.386*	-0.395*	-1.032***	-0.010	-0.647*	-0.637+
R Not employed		-0.516***	-0.724***	-0.866***	-0.924***	-0.208	-0.350	-0.408	-0.142	-0.200	-0.058
Edu (none = ref)	Primary	0.062	0.009	-0.049	0.724*	-0.054	-0.112	0.661*	-0.058	0.715*	0.773*
	Secondary	-0.214	-0.575**	-0.997**	0.522	-0.362+	-0.783**	0.735*	-0.422	1.097**	1.519**
	Higher	-0.787*	-1.172+	-2.328**	0.616	-0.385	-1.541*	1.403*	-1.156	1.788*	2.944**
Father abuses mother		0.869***	1.092***	1.099***	1.045***	0.223+	0.230	0.177	-0.007	-0.046	-0.053
History of Violence		0.370*	0.595***	0.638**	0.879***	0.225	0.269	0.510*	0.044	0.285	0.241
Tolerates IPV		0.648***	0.805***	0.648***	0.737***	0.157	0.003	0.089	-0.157	-0.068	0.089

Table 5.4b Block 2: Mesosystem Level Factors

		Ref: No Violence (class 1) (a) (36%)				Ref: Control Only (class 2) (b) (40%)			Ref: Less Severe Violence (Class 3) (c) (17%)		Ref: Severe Violence (Class 4) (3 %) (d)
		Control Only (b)	Less Severe (c)	Most Severe (d)	Sexual (e)	Less Severe (c)	Most Severe (d)	Sexual (e)	Most severe (d)	Sexual (e)	Sexual (e)
Block 1 + 2 Micro & Meso	Age: (young = ref) Midage	0.207	0.165	-0.002	-0.034	-0.042	-0.209	-0.241	-0.167	-0.199	-0.032
	Older	-0.060	-0.140	-0.248	-0.767*	-0.079	-0.188	-0.707+	-0.108	-0.627+	-0.519
	R Not employed	-0.497	0.079	0.316	0.233	0.577*	0.813*	0.730	0.236	0.154	-0.083
	Edu (none = ref) Primary	0.059	0.038	0.162	0.710*	-0.022	0.102	0.650+	0.124	0.672*	0.548
	Secondary	-0.258	-0.525*	-0.638	0.540	-0.266	-0.308	0.798+	-0.113	1.065*	10178+
	Higher	-0.523	-1.686*	-2.030*	0.271	-1.163	-1.507	0.794	-0.344	1.957+	2.301+
	Father abuses mother	0.812***	1.278***	1.302***	1.071***	0.465**	0.489**	0.258	0.024	-0.207	-0.231
	History of Violence	0.337+	0.824***	0.797***	0.814**	0.487***	0.460*	0.477+	-0.027	-0.010	0.017
	Tolerates IPV	0.710***	0.976***	1.085***	0.623**	0.266*	0.375*	-0.087	0.109	-0.354	-0.463+
	Age dif(older = ref) Hsame	0.129	0.095	0.216	0.215	-0.033	0.088	0.086	0.121	0.120	-0.001
	H Younger	-0.121	0.301	0.293	0.219	0.421*	0.413	0.340	-0.008	-0.082	-0.074
	Ed diff (Fhigher = ref) same	-0.237	-0.397*	-0.678*	0.092	-0.161	-0.441	0.329	-0.280	0.490	0.770+
	Woman has Less	-0.294	-0.734*	-0.485	0.208	-0.439*	-0.191	0.502	0.248	0.942+	0.693
	wealth (poor = ref) middle	0.067	0.054	0.026	0.392	-0.013	-0.041	0.325	-0.029	0.337	0.366
	High	0.166	-0.413**	-0.365	0.544*	-0.579***	-0.531*	0.378	0.048	0.957***	0.909*
	Wk diff (Only F= ref) Both	0.025	0.843*	1.458**	1.873**	0.819**	1.433**	1.849**	0.614	1.030+	0.416
	Only H	-0.056	0.605	1.511**	2.971***	0.661+	1.568***	2.973***	0.906	2.312***	1.406+
	Husband Drinks	0.969***	1.734***	2.099***	0.983***	0.765***	1.130***	0.014	0.365*	-0.751**	-1.116***
	Female Headed Household	-0.194	-0.247	-0.554*	-0.354	-0.053	-0.360	-0.160	-0.306	-0.107	0.199
	Other wives	0.671***	0.805***	1.360***	0.881***	0.134	0.689**	0.210	0.556*	0.076	-0.480
	D making (ref = no) Low	-0.096	-0.149	0.013	-0.267	-0.052	0.110	-0.171	0.162	-0.118	-0.281
	high	-0.669***	-0.667***	-0.476	-1.482***	0.002	0.193	-0.813*	0.191	-0.815*	-1.006*

Table 5.4c Block 3: Exosystem Level Factors

		Ref: No Violence (class 1) (a) (35%)				Ref: Control Only (class 2) (b) (41%)			Ref: Less Severe Violence (Class 3) (c) (18 %)		Ref: Severe Violence (Class 4) (3 %) (d)
		Control Only (b)	Less Severe (c)	Most Severe (d)	Sexual (e)	Less Severe (c)	Most Severe (d)	Sexual (e)	Most severe (d)	Sexual (e)	Sexual (e)
Block 1+2+3	Age: (young = ref) Midage	0.217	0.211	0.024	0.003	-0.006	-0.193	-0.214	-0.187	-0.208	-0.020
	Older	-0.067	-0.077	-0.226	-0.722+	-0.009	-0.159	-0.655+	-0.149	-0.646+	-0.496
	R Not employed	-0.510	0.050	0.340	0.358	0.560+	0.850*	0.868*	0.290	0.308	0.018
Micro & Meso & Exo	Edu (none = ref) Primary	0.132	0.157	0.120	0.853*	0.025	-0.012	0.720+	-0.037	0.695+	0.733
	Secondary	-0.128	-0.325	-0.725	0.744	-0.197	-0.598	0.871	-0.401	1.068+	1.469+
	Higher	-0.320	-1.455+	-2.074*	0.450	-1.135	-1.754+	0.770	-0.619	1.905+	2.524+
	Father abuses mother	0.783***	1.258***	1.279***	1.077***	0.475***	0.496**	0.295	0.021	-0.180	-0.202
	History of Violence	0.387*	0.895***	0.840***	0.823**	0.508**	0.453*	0.435	-0.055	-0.072	-0.018
	VAW ever	0.636***	0.912***	1.078***	0.524*	0.276*	0.442*	-0.112	0.166	-0.388	-0.554+
	Ed diff (Fhigher = ref) same	-0.248	-0.415*	-0.771*	0.187	-0.166	-0.522+	0.436	-0.356	0.602	0.958*
	Woman has Less	-0.237	-0.688**	-0.576	0.344	-0.451*	-0.339	0.581	0.112	1.032*	0.920
	wealth (poor/mid) High	-0.008	-0.408*	-0.390	-0.092	-0.400*	-0.381	-0.084	0.019	0.316	0.298
	Wk diff (Only F= ref) Both	0.011	0.817*	1.511**	2.105**	0.807*	1.500**	2.094**	0.694	1.288*	0.594
	Only H	-0.126	0.550	1.595**	3.188***	0.676+	1.721***	3.314***	1.044+	2.637***	1.593+
	Husband Drinks	1.002***	1.776***	2.161***	0.995***	0.774***	1.159***	-0.007	0.385*	-0.781**	-1.166***
	Female Headed Household	-0.112	-0.166	-0.515+	-0.337	-0.053	-0.403	-0.224	-0.350	-0.171	0.178
	Other wives	0.656***	0.783***	1.362***	0.844**	0.127	0.706**	0.188	0.579**	0.061	-0.518
	D making (ref = low) high	-0.599***	-0.551***	-0.516**	-1.304***	0.047	0.083	-0.705*	0.035	-0.753**	-0.788*
	Rural Residency	-0.257	-0.419*	-0.719*	-0.586*	-0.163	-0.462+	-0.330	-0.299	-0.167	0.132
	Comm. Wealth (poor) mid	0.009	0.118	0.535*	-0.861+	0.180	0.526*	-0870+	0.418	-0.978*	-1.396**
	high	0.071	-0.260	-0.374	0.113	-0.331+	-0.445	0.042	-0.114	0.373	0.487
	Average years F educ	0.015	-0.020	0.016	0.036	-0.036	0.001	0.021	0.036	0.057	0.021
	Community Tolerates VAW	0.562***	0.424**	0.350	0.638*	-0.138	-0.212	0.076	-0.074	0.214	0.288

Table 5.4d Block 4: Final 5-Class Model

Block	Variable	Ref: No Violence (class 1) (a) (36%)				Ref: Control Only (class 2) (b) (40%)			Ref: Less Severe Violence (Class 3) (c) (18%)		Ref: Severe Violence (Class 4) (d) (3%)
		Control Only (b)	Less Severe (c)	Most Severe (d)	Sexual (e)	Less Severe (c)	Most Severe (d)	Sexual (e)	Most severe (d)	Sexual (e)	Sexual (e)
Block 4 Micro &	R Not employed	-1.189	-0.159	-0.280	-1.926	1.030+	0.909	-0.737	-0.121	-1.767	-1.646
	Edu (none = ref) Primary	0.139	0.107	0.074	0.910**	-0.032	-0.064	0.772*	-0.032	0.804*	0.836*
	Secondary	-0.090	-0.380	-0.782	0.802+	-0.289	-0.691	0.892+	-0.402	1.181*	1.584*
	Higher	-0.272	-1.483*	-2.219*	0.420	-1.212	-1.947*	0.692	-0.735	1.903+	2.638*
	Father abuses mother	0.778***	1.259***	1.258***	1.046***	0.481***	0.480**	0.269	-0.001	-0.213	-0.212
	History of Violence	0.369+	0.884***	0.761***	0.736**	0.514***	0.392+	0.367	-0.123	-0.148	-0.025
	Tolerates VAW	0.641***	0.915***	1.045***	0.545*	0.274*	0.404*	-0.095	0.130	-0.396	-0.499
	Ed diff (Fhigher = ref) same	-0.240	-0.425*	-0.793**	0.141	-0.185	-0.553*	0.381	-0.368	0.556	0.934*
	Woman has Less	-0.237	-0.725**	-0.659*	0.283	-0.488**	-0.422	0.521	0.066	1.009*	0.943+
	wealth (poor/mid) Hi gh	-0.020	-0.419*	-0.386	-0.106	-0.399*	-0.365	-0.086	0.034	0.313	0.280
	Wk diff (Only F= ref) Both	-0.676	0.584	0.912	0.239	1.260*	1.589*	0.437	0.329	-0.823	-1.152
	Only H	-1.542	0.086	0.260	-1.509	1.628	1.802	0.033	0.174	-1.595	-1.769
	Husband Drinks	0.987***	1.756***	2.130***	0.864***	0.769***	1.143***	-0.123	0.374*	-0.892***	1.266***
	Other wives	0.601***	0.727***	1.243***	0.656*	0.127	0.642**	0.055	0.515*	-0.071	-0.587+
	D making (ref = low) high	-	0.563***	-0.554**	1.362***	0.051	0.059	0.748**	0.008	-0.799**	-0.808**
Meso & Exo &	Rural Residency	-0.309	-0.439**	-0.753**	-0.699*	-0.130	-0.444+	-0.390	-0.314	-0.260	0.053
	Comm. Wealth (poor) mid	0.007	0.087	0.548*	-0.882+	0.080	0.540*	-0.890+	0.460+	-0.969*	-1.430**
	high	0.091	-0.304+	-0.326	0.162	-0.395*	-0.417	0.071	-0.022	0.466+	0.487
Macro	Community Tolerates VAW	0.511**	0.396**	0.576*	0.871**	-0.115	0.065	0.360	0.181	0.476	0.295
	Country (Tan= ref) Kenya	-0.044	-0.100	0.383	0.655+	-0.056	0.427	0.699*	0.483	0.755*	0.272
	Uganda	0.737	0.250	0.832	2.628	-0.487	0.095	1.891	0.582	2.378	1.796

VITA AUCTORIS

Amy Peirone was born in Windsor, Ontario, Canada. She received her B.A. in Sociology and Criminology from the University of Windsor in 2005 where she graduated with distinction. From there, Amy went on to complete an M.A in Criminology at the University of Ottawa (2008) and an M.A in Social Data Analysis at the University of Windsor (2013). She is currently completing her Ph.D in Sociology at the University of Windsor, where her dissertation research examines the diversity in experiences of intimate partner violence among a sample of women in sub-Saharan Africa.