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Sociodemographic and behavioural factors of physical Intimate Partner Violence (IPV) perpetration among men in South Africa

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2020
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SOCIODEMOGRAPHIC AND BEHAVIOURAL FACTORS OF PHYSICAL INTIMATE PARTNER VIOLENCE (IPV) PERPETRATION AMONG MEN IN SOUTH AFRICA

A research project submitted to the Faculty of Humanities, School of Social Sciences, University of Witwatersrand, in partial fulfilment of the requirements for the degree of Master of Arts in Demography and Population Studies

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March 2020

DECLARATION

I, Pride Kandemiri hereby declare that this research report is my original work. It is being submitted to the Faculty of Humanities and School of Social Sciences, the University of the Witwatersrand in Johannesburg, South Africa. It is submitted in partial fulfilment of the requirements for the degree of Master of Arts in the field of Demography and Population Studies. I declare that this report has not been submitted before in part, or in full, for any other degree or examination at this or any other university.

_____

16 March 2020

ACKNOWLEDGEMENTS

First of all, I would like to thank the almighty God for blessing me with the gift of life and wisdom that enables me to do this research study.

I would like to thank Dr Sasha Frade for being a supporting and caring supervisor. I am extremely grateful for the insightful and valuable comments and suggestions that have been so supportive in producing this research report.

I would further like to acknowledge the continuous assistance and helpful remarks from the Head of Department for Demography and Population Studies at the University of the Witwatersrand, Professor Nicole De wet- Billings – not only during the completion of my research report but in my entire career as a student at the University of the Witwatersrand.

I express my gratitude towards my aunt Ellah Ngondonga for her encouragement and support which helped me to complete this research project. Without her support and steady guidance, I could not have finished this research report. I wish to acknowledge the help of Ziyanda Motaung, Vuyelwa Phellows and Vuyiswa Phellows for their support.

ABSTRACT

Background: In South Africa, alarming rates of male IPV perpetration have been recorded. However, many studies have focused on those affected, and less on the perpetrators. Prevention of male perpetrated IPV needs to be built on evidence of drivers among men at risk for perpetration. Thus, this study examines the sociodemographic and behavioural factors among male IPV perpetrators.

Method: This was a quantitative study utilising the cross-sectional design. The study used the 2016 South African Demographic and Health Survey (SADHS). The study included a weighted sample of 1475 men in the male recode. The independent variables of this study included sociodemographic and behavioural factors of men. The dependent variable of the study is male IPV perpetration. Data analysis was done in three phases which include series of frequencies and percentage distributions, Pearson's chi-square test and binary logistic regression.

Results: The results indicated that 19% of men in South Africa have reportedly perpetrated IPV. Male IPV perpetration was high among men in Limpopo (36%) and KwaZulu-Natal (25%), and white males had the highest perpetration rate (29%). Male IPV perpetration was associated with demographic factors which include age (AOR: 0.89; CI: 0.824-0.975), age at first cohabitation (AOR: 1.07; CI: 1.012-1.113), age of wife/partner (AOR1.12; CI: 1.045-1.180). Residing in rural areas (UOR: 1.54; CI: 0.993-2.384) was significantly associated with male IPV perpetration (vs urban areas). Men from the Northern Cape (AOR: 0.18; CI: 0.042-0.753), Free State (AOR: 0.07; CI: 0.007-0.543) and North West (AOR: 0.09 CI: 0.014-0.472) were significantly less likely to perpetrate IPV compare to those from Western Cape. Male IPV perpetration was also associated with involving the wife/partner in household decision making (vs none) (AOR: 0.52; CI: 0.277-0.963).

Conclusions: IPV perpetration is associated with region, place of residence and behavioral attitudes. Men living in poor regions and rural areas are at risk of perpetrating IPV. This study provides evidence that sociodemographic and behavioural factors are associated with male IPV perpetration in South Africa. IPV prevention programmes must prioritise the poor regions, rural areas and behavioural factors that put men at risk for IPV perpetration. To continue to move forward in the pursuit of a deeper understanding of the factors and mechanisms that inform male

perpetrated IPV, it is important to explore to the aetiology of IPV looking at characteristics of men that lead them to act aggressively towards an intimate partner.

Keywords: Intimate partner violence, sociodemographic factors, behavioural factors

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LIST OF ABBREVIATIONS AND ACRONYMS

DHS	Demographic and Health Survey
DPS	Demography and Population Studies
GBV	Gender-Based Violence
HIV	Human Immunodeficiency Virus
IPV	Intimate Partner Violence
PTSD	Post-Traumatic Stress Disorder
SA	South Africa
Stats SA	Statistics South Africa
SADHS	South African Demographic and Health Survey
UN	United Nation
VIF	Variance Inflation Factor
WHO	World Health Organization

CHAPTER 1: INTRODUCTION

1.1 Introduction

The chapter provides the background of the study, which focuses on physical intimate partner violence (IPV) and its perpetration in South Africa. Thereafter, the chapter continues with the problem statement, justification of the study, research objectives and research questions. The final section of the chapter highlights the study's research hypothesis.

1.2 Background

There is an increasing understanding that male IPV perpetration has a large public health impact, in addition to being a gross violation of victims' human rights (Devries et al., 2013; United Nations Women, 2014; WHO, 2017). Male IPV perpetration refers to the use of physically, sexually and psychologically coercive acts by men against an intimate partner (WHO, 2017). For the purposes of this study, intimate partner violence refers to any acts of physical violence directed to a female by a male intimate partner.

According to the World Health Organisation (WHO) (2017), the global prevalence of male perpetrated IPV is 30% (reported by ever-partnered women). The prevalence is high in African, Eastern Mediterranean and South-East Asia Regions, where approximately 37% of ever-partnered women reported having experienced physical and/or sexual IPV, perpetrated by their male partners at some point in their lives (WHO, 2017). Respondents in the US reported the next highest prevalence, with approximately 30% of women reporting lifetime exposure (WHO, 2017). Male perpetrated IPV prevalence is lower in the high-income region (23%) and in the European and the Western Pacific Regions, where 25% of ever-partnered women reported lifetime IPV experience (WHO, 2017). According Townsend et al. (2011), lifetime reports of male perpetrated physical or sexual violence reported by women in South Africa range from 43.3% among young rural women, to 55.5% among women attending antenatal clinics. A study done among working class men in Cape Town found that 15.3% of men had perpetrated sexual violence (Abrahams et al., 2004) and 42.3% had perpetrated physical violence in the 10 years prior to the survey (Abrahams et al., 2006), and 8.8% had perpetrated physical violence in the 12 months prior to the survey (Abrahams et al., 2006).

There are 4 main forms of IPV perpetrated by men which are physical IPV, sexual IPV, stalking and psychological aggression (Chisholm et al., 2017). Physical IPV is the intentional use of physical force with the potential for causing death, disability, injury, or harm. Sexual IPV involves forcing or attempting to force a partner to take part in a sex act, sexual touching, or a non-physical sexual event when the partner does not or cannot consent. Stalking is a pattern of repeated, unwanted, attention, and contact that causes fear or concern for one's own safety or the safety of someone else. Psychological aggression is the use of verbal and nonverbal communication with the intent to harm another person mentally or emotionally and/or to exert control over another person (Chisholm et al., 2017).

Physical and/or sexual violence perpetrated against women by their intimate male partners is a common experience worldwide (Watts & Zimmerman, 2002). In South Africa, Physical IPV is one of the most common forms of violence that is perpetrated by male intimate partners (Townsend et al., 2011). The perpetration of physical IPV by men is believed to be a consequence of, and to sustain, inequitable gender power distribution that stems from ideologies of male superiority. This is supported by feminist theories that concluded that men are most likely to be perpetrators of IPV due to patriarchal power relations that produce gender ideologies and cultural conditions that create and sustain IPV (Melton & Belknap, 2003). Feminist theories indicate that male IPV perpetration is linked to traditional masculine gender role ideologies. Previous studies have documented that men who subscribe to hegemonic masculinity cultures are more likely to report enacting violence against their partners. Hegemonic masculinity, which is the normative ideology that men have to dominate women in society, has resulted in men's perpetration of physical IPV towards their partners (Smith et al., 2015). This is very common in South African cultures which emphasise that to be a man is to be dominant in the society and subordination of female partners is necessary to maintain such power (Smith et al., 2015). Male IPV perpetration has also been found to be associated with several behavioural risk factors. The literature demonstrates that male IPV perpetration in South Africa is significantly associated with multiple sex partners, as well as substance and alcohol abuse (Christofides et al., 2018). Dunkle et al. (2016) further suggest that higher levels of risky behaviour are associated with more severe IPV.

The United Nations (UN) has estimated that more than 600 million women live in countries where IPV is not considered a crime. In South Africa, IPV is a crime and it is included in the Domestic Violence Act 116 of 1998 (Okeke-Ihejirika et al., 2019). However, in South Africa, male perpetrated IPV is among the highest in the world based on data collected including a nationally representative sample, among adolescent and young adult women, and among women attending antenatal clinics (Teitelman et al., 2017). These findings are consistent with high prevalence rates in multiple studies of male perpetration of IPV towards female partners in South Africa (Machisa, Christofides, & Jewkes, 2016; Teitelman et al., 2017). For instance, a population-based study that was done in the Western Cape Province of South Africa discovered that the prevalence of male IPV perpetration was 42% among adolescents (Pöllänen et al., 2018). Globally, South Africa is marked by high levels of gender inequality and violence against women (Teitelman et al., 2017). Literature has also shown that men that have been exposed to violence and cultural norms that reinforce abusive behaviours, are more likely to be perpetrate IPV in adulthood (Mulawa et al., 2018).

Male perpetrated IPV has been seen as a major social and public health problem affecting intimate partners (Townsend et al., 2011). IPV is often associated with women, but men also experience IPV at much higher levels than what the general public believe (Devries et al., 2013; Kivisto, 2015). However, it was found that women are disproportionately affected by IPV than men. Around the world, unlike men, women are at greater risk of suffering from the effects of IPV (Christofides et al., 2018; Groves et al., 2015; Wallenborn, Cha, & Masho, 2018). Male perpetrated IPV has been found to have more negative health consequences than female perpetrated IPV (Birkley & Eckhardt, 2015). Female survivors of male perpetrated IPV report more physical and mental health problems than females who do not report IPV, including greater chances for chronic pain, diabetes, depression, suicide and substance use (Black et al., 2011).

1.3 Problem statement

IPV is recognised as a health and human rights issue globally and it is situated within the discourse on gender-based violence and violence against women (Christofides et al., 2018). Well over two decades after, post-apartheid South Africa has become a violent and dangerous place with alarming rates of IPV being recorded (Dunkle et al., 2016). According to Boonzaier and Gordon (2015), male IPV perpetration has been and continues to be one of the most prominent

features of post-apartheid South Africa. Most women in South Africa do not report IPV because of many factors including cultural beliefs and gender inequality (Boonzaier & Gordon, 2015). UN estimates that in sub-Saharan Africa, IPV prevalence rates of 40% have been recorded in almost half of African countries (Okeke-Ihejirika et al., 2019). Studies done in South Africa among young men found that 28%-32% reported enacting violence (physical and/ or sexual) towards wife/partners (Christofides et al., 2018; Dunkle et al., 2016; Jewkes et al., 2011). Men's characteristics that have been associated with IPV perpetration included multiple partners, inconsistent condom use, less education, exposure to violence during childhood and problem alcohol use (Christofides et al., 2018; Dunkle et al., 2016). However, previous studies on male IPV perpetration in South Africa have not occurred at the national level, but at the city or provincial levels only; or they have looked at only sub-populations of men – such as adolescent age groups and young adults.

Previous studies shows links between IPV and acute and chronic physical health problems like pain syndromes (neck and back pain), severe headaches, abdominal pains, heart diseases and other digestive disorders among women (Campbell et al., 2007; Christofides et al., 2018; Coker et al., 2000, 2000; Ellsberg et al., 2008; Okafor et al., 2018; Vives-Cases et al., 2010). Due to the high impact and prevalence of IPV, women are likely to utilize healthcare services due to IPV related healthcare needs (Dichter et al., 2018). Also, a study done by Devries et al. (2013), found that women who reported using mental health services were more likely to report being victims of IPV. This is a highlight that IPV perpetrated by men has negative health problems for survivors and it needs to be addressed.

IPV has also been associated with sexual and reproductive health consequences including vaginal bleeding, increased risk of sexually transmitted infections, vaginal infections, miscarriage, pelvic pain, painful sexual intercourse, painful urination, unintended pregnancies, urinary tract infections, multiple abortions, preterm delivery, neonatal death and low birth weight (Okafor et al., 2018; Orpin et al., 2017). Existing studies have consistently indicated that the prevalence of IPV among pregnant women is high in African countries - ranging from 2% to 57% (Orpin et al., 2017). Furthermore, IPV during pregnancy put both the women and her unborn child at risk. The consequences of IPV perpetrated by men are likely to increase infant and maternal morbidity and mortality rates.

Besides, mental health symptoms have also been recorded among victims of IPV and these symptoms include, anxiety, memory loss, post-traumatic stress disorder (PTSD) and depression (Devries et al., 2013; Stöckl & Penhale, 2015). IPV has also been shown to lead to an increase in alcohol and substance use among victims (Devries et al., 2013; Stöckl & Penhale, 2015). A study done in Cape Town, South Africa by Stöckl and Penhale (2015) showed that IPV is strongly associated with depression symptoms compared with females that were not exposed to IPV.

Worldwide, male IPV perpetration has been associated with morbidity and high mortality among the female population (Okafor et al., 2018). Research has highlighted that victims of IPV, mostly women, are at greater risk of having a violent death through homicide or suicide (Devries et al., 2013; Kivisto, 2015; Okafor et al., 2018). Intimate partner homicide has been identified as one of the most extreme forms of IPV. At least one in seven homicides are perpetrated by a male intimate partner, globally (Adhia et al., 2019). The proportion of women is even more troubling. A recent study done in the U.S. shows that 55% of all homicides of women were IPV related (Adhia et al., 2019). According to Okafor et al. (2018), IPV was found to be significantly associated with worse depressive symptoms in a longitudinal study that was done in South Africa. Depression is also significantly associated with suicides in South Africa (Okafor et al., 2018). The enduring stress, low self-esteem, isolation, hopelessness, and physical pain due to experiences of IPV largely perpetrated by men can lead to mental health problems, particularly depression (Ellsberg et al., 2008; Heise, 2018; Rees et al., 2014).

Most females in South Africa that are exposed to IPV perpetrated by men are of the working-age and they are very crucial for the development of the country because of their important contribution to economic growth (Wood et al., 2017). According to WHO (2017), the highest prevalence rates of IPV perpetrated by men were recorded among women aged between 15 to 49, with the rate ranging from 29.4% to 37.8%. These women are part of the economically active group; however, their health status is negatively affected by their exposure to IPV. Women are increasingly participating in the South African economy and poor health caused by IPV will result in diminished labour capacity. In the worst case, IPV perpetrated by men results in homicides of females (Adhia et al., 2019). Women of working age are crucial for the development of a country because of their significant contribution to the economic growth of the country (Asongu et al., 2020).

In 2017, UN reported that up to 7 in 10 women worldwide will experience physical or sexual violence (IPV perpetrated by men included) at some time in their lives (Okeke-Ihejirika et al., 2019). IPV continues to be high in sub-Saharan Africa, including South Africa, which is largely perpetrated by males (Christofides et al., 2018). Despite the implementation of legislative and policy measures to reduce male IPV perpetration in South Africa, it remains high. Awareness campaigns to reduce violence against women are done almost every year in South Africa, however, women remain major victims of IPV. Campaigns to reduce all forms of violence against women have been implemented through the 16 Days of Activism against Gender-Based Violence (World Health Organization, 2017). However, these campaigns did not bring much change because the prevalence of IPV continues to rise almost daily (United Nations Women, 2014). In South Africa, IPV is a crime and it is included in the Domestic Violence Act 116 of 1998 (Okeke-Ihejirika et al., 2019). However, the domestic violence act makes no provision for programmes to understand and address the factors that lead men to be perpetrators, the emphasis is solely on females as victims (Okeke-Ihejirika et al., 2019).

Previous studies show inconsistent results of the association between age and male IPV perpetration (Shorey et al., 2019). However, globally, IPV perpetration was found to be high among youths with a rate of 29.4% and lower rates were recorded among the elderly with a rate of 22.2% (WHO, 2017). According to Statistics South Africa (2018), South Africa comprise a higher number of young people (35.7%) between the ages of 15 to 34 years old. Thus, research must be conducted to examine age groups associated with male IPV perpetration, as these could be targeted in male IPV perpetration prevention and intervention programmes.

1.4 Justification

While several studies have examined factors that place women at risk for experiencing IPV in South Africa, it is important to also better understand characteristics of men who perpetrate IPV against women (Teitelman et al., 2017). Few studies have been conducted on male IPV perpetration. Previous studies on male IPV perpetration in South Africa have not been at a national level, but only at the level of a city or province. Furthermore, most studies looked at specific population groups, such as adolescents and young adults, and not all men. This study, therefore, used nationally representative cross-sectional data to investigate the association

between sociodemographic and behavioural factors and male IPV perpetration in South Africa, amongst men of ages 20 to 59 years.

South Africa is known to have particularly high levels of male perpetrated IPV against women. In addition, South Africa has the highest rate of women killed by their intimate partner in the world despite various interventions such as the Sixteen Days of Activism of No Violence Against Women and Children campaign each year from late November to mid-December (SaferSpaces, 2019). In fact, 17 years since its inception in 1998, fifty percent of the women murdered in South Africa are still killed by someone with whom they have an intimate relationship (SaferSpaces, 2019). Clearly, not enough is being done about IPV. This research is important to understand factors that contribute to perpetration of male IPV and inform policy interventions aimed at addressing male IPV perpetration.

This will help in developing initiatives to engage men and boys in violence prevention, as well as other community-based programmes that aim to reduce IPV perpetration and its risk factors. Thus, the ongoing search for reliable risk factors for male IPV perpetration is essential to promote: (1) the development of comprehensive etiological models of IPV; (2) improvement of IPV risk assessment methods; (3) reduce victim-blaming; and (4) development of empirically supported intervention and treatment programs for perpetrators of IPV (Birkley & Eckhardt, 2015). The search for risk factors of IPV perpetration is of high significance when trying to deal with IPV because focusing on victims only does not curb the problem (Stephens-Lewis et al., 2019). To continue to move forward in the pursuit of a deeper understanding of the factors and mechanisms that inform male perpetrated IPV, it is important to explore to the aetiology of IPV looking at characteristics of men that lead them to act aggressively towards an intimate partner. As such, it follows our ability to prevent IPV that is largely perpetrated by men in South Africa.

It is highly important to address male IPV perpetration by focusing on the behaviours and/ characteristics of men who are perpetrators. Understanding the behaviours and characteristics of male perpetrators through research will help to inform programmes that intend to end male IPV perpetration, and the incidence of IPV generally. According to Wood et al. (2017), this will yield more good results in reducing the alarmingly high rates of male IPV perpetration in South Africa. For the past decades, the focus has been typically one-sided concentrating on understanding the experiences of the victims of IPV (Fulu et al., 2013). Contributing factors of

IPV and rehabilitation needs of perpetrators has been neglected and this has resulted in the ineffectiveness of victim-focused approaches. However, more research needs to be done in South Africa considering high prevalence rates of IPV in the country.

Findings of this research study are expected to inform policy interventions aimed at addressing male IPV perpetration. It is important to understand these factors associated with male perpetration of IPV to inform prevention programmes like Skhokho Supporting Success, The Stepping Stones/Creating Futures, and The Sonke Change Trial. These programmes aim to address risk factors for violence against women and girls at individual, relationship, community and societal level in South Africa (SaferSpaces, 2015). According to the WHO (2017), government programmes and policy interventions must engage both males and females in promoting gender equality to prevent violence against women.

Looking at male IPV perpetrators is important to understand their characteristics and behaviours so that programmes designed to tackle this problem can be effective in South Africa. Prevention of IPV perpetration needs to be built on evidence of drivers among men at risk for perpetration (Jewkes et al., 2017). There is a reasonably large amount of literature on risk factors for the experience of IPV (for example, summarized in the WHO's 2010 review), but major limitations include a focus on lifetime exposure and over the adjustment of models for at-risk groups rather than focusing on risk factors (Jewkes et al., 2017). Prevention science is better informed by looking at risk factors amenable to intervention and linked to the past-year experience of IPV, which are likely to differ from factors associated with a lifetime experience of IPV (Jewkes et al., 2017).

According to Rees et al. (2014), IPV has negative effects on all aspects of health and it leads to mortality and increased risk factors for poor health outcomes in a society. Addressing IPV perpetration that has a major implication on the health of victims will contribute towards achieving the Sustainable Development Goal 3. Therefore, this study aims to examine sociodemographic and behavioural factors associated with male IPV perpetration in South Africa. This research will contribute to a growing body of literature and it will bridge a knowledge gap by studying factors that put men at risk of IPV perpetration, which is an understudied area in South Africa.

1.5 Research Objective

1.5.1 Main objective

To determine the levels, sociodemographic and behavioural factors associated with male IPV perpetration in South Africa.

1.5.2 Sub-objectives

1. To determine the levels of IPV perpetration among men in South Africa.
2. To examine the relationship between sociodemographic factors and male IPV perpetration.
3. To examine the relationship between behavioural factors and male IPV perpetration.

1.6 Research Question

1.6.1 Main question

What are the sociodemographic and behavioural factors associated with male IPV perpetration in South Africa?

1.6.2 Sub-questions

i. What are the levels of male IPV perpetration in South Africa?

ii. What is the association between male IPV perpetration and sociodemographic factors of male IPV perpetrators in South Africa?

iii. What is the association between male IPV perpetration and behavioural factors of male IPV perpetrators in South Africa?

1.7 Research Hypothesis

H_o: There is no association between sociodemographic and behavioural factors and male IPV perpetration in South Africa.

H_a: There is an association between sociodemographic and behavioural factors and male IPV perpetration in South Africa.

CHAPTER 2: LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

2.1 Introduction

This chapter presents the review of previous literature on male IPV perpetration around the world and in South Africa. This review will be divided into three sections which focus on the effects of male perpetrated IPV, determinants of male IPV perpetration and deficiencies in the literature of male IPV perpetration. The chapter also goes on to discuss the theoretical and conceptual framework that underpins the study.

2.2 Literature review

2.2.1 The Prevalence of male IPV perpetration

According to the WHO (2017), the global prevalence of male perpetrated IPV is 30% (reported by ever-partnered women). The prevalence is high in African, Eastern Mediterranean and South-East Asia Regions, where approximately 37% of ever-partnered women reported having experienced physical and/or sexual IPV, perpetrated by their male partners at some point in their lives (WHO, 2017). Respondents in the US reported the next highest prevalence, with approximately 30% of women reporting lifetime exposure (WHO, 2017). Male perpetrated IPV prevalence is lower in the high-income region (23%) and in the European and the Western Pacific Regions, where 25% of ever-partnered women reported lifetime IPV experience (WHO, 2017). In addition, in 2017, the UN reported that up to 7 in 10 women worldwide will experience physical or sexual violence (IPV perpetrated by men included) at some time in their lives (Okeke-Ihejirika et al., 2019).

UN estimates that in sub-Saharan Africa, IPV prevalence rates of 40% have been recorded in almost half of African countries (Okeke-Ihejirika et al., 2019). Existing studies have consistently indicated that the prevalence of IPV among pregnant women is high in African countries - ranging from 2% to 57% (Orpin et al., 2017). IPV continues to be high in sub-Saharan Africa, including South Africa, which is largely perpetrated by males (Christofides et al., 2018). Despite the implementation of legislative and policy measures to reduce male IPV perpetration in South Africa, it remains high. According Townsend et al. (2011), lifetime reports of male perpetrated physical or sexual violence reported by women in South Africa range from 43.3% among young rural women, to 55.5% among women attending antenatal clinics. A study done among working

class men in Cape Town found that 15.3% of men had perpetrated sexual violence (Abrahams et al., 2004) and 42.3% had perpetrated physical violence in the 10 years prior to the survey (Abrahams et al., 2006), and 8.8% had perpetrated physical violence in the 12 months prior to the survey (Abrahams et al., 2006). In addition, a population-based study that was done in the Western Cape Province of South Africa discovered that the prevalence of male IPV perpetration was 42% among adolescents (Pöllänen et al., 2018).

2.2.2 Determinants of male IPV perpetration

Exposure to violence during childhood

Previous research studies show a link between IPV perpetrations in adulthood with childhood exposure to violence, any form of abuse including witnessing IPV (Roberts et al., 2011). According to Lee, Walters, Hall and Basile (2013), men with a history of childhood family violence exposure (all forms of violence, including IPV) are more likely to perpetrate partner violence. These men are likely to find it difficult to have self-control concerning violence towards their partners during conflicts compared to men without exposure. A study that was done in America found that children who experience harsh physical punishment by a parent or another adult in the household are more likely to perpetrate IPV in their adulthood (Afifi et al., 2017). Experiencing physical punishment or maltreatment may make physical violence seem acceptable and this increases the probability of violence continuing into intimate partner relationships in adulthood. Significant associations have been found by several researchers between exposures of childhood adversity and IPV perpetration among men (Abrahams et al., 2006; Gupta et al., 2008; Roberts et al., 2011; Welles et al., 2011; White & Widom, 2003; Widom et al., 2014).

A study that was done in Cape Town, South Africa found that perpetrators of IPV were men who witnessed abuse, suggesting that men learn from that observation that violence is an appropriate action in the context of intimate partner conflict (Machisa et al., 2016). This is consistent with the social learning theory which argues that individuals exposed to family violence in childhood are at greater risk of perpetrating violence (Lee et al., 2013).

In addition, history of childhood sexual abuse of men has been found to result in adulthood IPV perpetration. Teitelman et al. (2017) found that men with a history of childhood sexual abuse are

more likely to be IPV perpetrators. A global meta-analysis of childhood sexual abuse reported that childhood sexual abuse for boys is 19.3% in Africa (Stoltenborgh et al., 2011). According to Teitelman et al. (2017), this rate is the highest in the world and it may account for high prevalence rates of IPV among adult males in Africa. It is argued that child sexual abuse affects brain development, leading to a diminished capacity to inhibit a variety of impulsive behaviours (Jemmott et al., 2014). A growing body of research suggests that men that have difficulties with impulse control are more likely to perpetrate IPV during a conflict with an intimate partner (Steel et al., 2017).

Socioeconomic status

Literature shows inconsistent results on the association between male IPV perpetration and socioeconomic status (SES) (Assari & Jeremiah, 2018). Male IPV perpetration is found to be negatively and positively related to the SES of men. According to Assari and Jeremiah (2018), male partners' poor SES is associated with alcohol and drug abuse and IPV perpetration. Intimate partners under stress due to limited resources are more likely to resort to IPV to settle their conflicts. On the other hand, Jewkes, Sikweyiya, Morrell and Dunkle (2011) found a positive connection between men's high SES and their perpetration of sexual IPV. It is argued that men with higher SES have a sense of sexual entitlement and this is a risk factor for IPV perpetration. One of the controversial cases that are common in South Africa is the blesser-blessee relationship which is highly characterised by IPV perpetration by the blessers (men with money). Blesser refers to the person who offers money and gifts in exchange for sexual favors (Geldenhuys, 2016). This is a form of transactional sex and in a study done by Dunkle et al. (2016), IPV perpetration is common in men who engage in transactional sex. Also, the link between SES and male IPV perpetration is well connected to men's education levels and employment status.

Education

Globally, male IPV perpetration has been associated with less or low education (Fulu et al., 2013). Research findings from the UN Multi-country Cross-sectional Study on Men and Violence in Asia and the Pacific found that physical partner violence perpetration was associated with low levels of education (Jewkes et al., 2017). These findings are consistent with findings on research studies that were done among men in South Africa. South African men who have less

education were associated with IPV perpetration (Abrahams et al., 2006; Olasupo et al., 2018). Contrary to previous research findings, Teitelman et al. (2017) found that there was no association between less education and male IPV perpetration in South Africa. Besides, Abrahams et al. (2006) argue that male IPV perpetration is also linked to educational disparities between partners. There is an increased risk of using physical violence against partners with low education levels and living in poverty.

Employment status

Previous studies have demonstrated inconsistent results when it comes to the link between employment status and male IPV perpetration (Teitelman et al., 2017). Employment status may be protective toward male IPV perpetration; however greater income may increase the risk of IPV perpetration especially when the partner is unemployed or has a low income. Greater income may increase gender power differentials which is a risk factor for IPV perpetration (Bonnes, 2016). Employed men feel entitled to greater gender power concerning their female partners due to their income level and this is associated with IPV perpetration. Studies in South Africa found that employed men are more likely to be IPV perpetrators than unemployed men (Townsend et al., 2011). Evidence shows that employed men in South Africa have a greater ability to buy alcohol and/ entertain multiple partners, and these factors are associated with IPV perpetration among South African men (Jewkes et al., 2011; Townsend et al., 2011). Contrary to these findings, a study that was done in America indicates that unemployed men are more likely to be IPV perpetrators (Mthembu et al., 2016). These men have inadequate resources to cope with the normative demands and as a result, they become violent towards their partners because of the stress (McCue, 2018). According to Kim, Laurent, Capaldi and Feingold (2008), this factor is compounded when living in communities experiencing economic distress.

Religion

According to Teitelman et al. (2017), high religiosity is significantly associated with reduced IPV perpetration due to religious teachings of love and respect for others. Religion may exert a protective influence against the perpetration of IPV. Frequent attendance at religious services has been associated with positive marital indicators including happiness, satisfaction, adjustment and duration (Dim, 2019). This reduces marital conflicts and the risk of IPV among religious couples. A research that was done by Dim (2019) suggests that religiously homogenous intimate

partners have higher levels of marital happiness and satisfaction than heterogamous intimate partners. However, some religions are associated with traditional gender norms that emphasize on male dominance which reinforces male IPV perpetration (Renzetti et al., 2015). Feminist theorists argue that Christianity is deeply rooted in a patriarchal structure and ideologies that promote the domination of males on females, which contribute to IPV perpetration by men within a marriage (Renzetti et al., 2015). According to Renzetti et al. (2015), the Christian ideology of male headship and female submission reinforces perpetration of IPV in intimate relationships.

Age

According to Teitelman et al. (2017) age plays an important role in both IPV victimisation and perpetration. Globally, IPV perpetration was found to be high among youths with a rate of 29.4% and lower rates were recorded among the elderly with a rate of 22.2% (World Health Organization, 2017). Shorey et al. (2019) argue that older people have more relationship experience and maturity in resolving intimate partner conflicts and this reduces the likelihood of IPV. Whilst young men lack maturity in resolving intimate partner conflicts/differences there are high chances of IPV perpetration among young males. Also, age differences among intimate partners have also been found to be a factor that increases or decrease the chances of male IPV perpetration (Dardis et al., 2015). Men who are way older than their intimate partners are likely to be controlling and abuse towards their partners. In a study that was done in South Africa, the rates of IPV experienced by females are high among adolescent and young adult women (Dunkle et al., 2016; Jewkes et al., 2006). These findings are consistent with high prevalence rates in several studies of male IPV perpetration towards young adult women in South Africa (Dunkle et al., 2016; Gupta et al., 2008; Townsend et al., 2011; VanderEnde et al., 2016).

Race

Globally, IPV perpetration rates vary across racial groups (Aldarondo & Castro-Fernandez, 2011). Latino youths are found to be significantly associated with a greater risk of IPV perpetration due to their traditional gender role attitudes and acculturation (Dardis et al., 2015; Sabina et al., 2016; Vagi et al., 2013). Similarly, a study of Dominican and Puerto Rican youths reported that this racial group have also a higher likelihood of IPV perpetration due to their involvement in the U.S culture which is acculturation oriented (Grest et al., 2018). Other

research studies have demonstrated that Hispanic women are likely to accept the violent behaviour of their partners and this has reinforced male IPV perpetration among Hispanic men (Shorey et al., 2019).

In America, the context of male IPV perpetration is different for African Americans. According to Sutton et al. (2019), racial discrimination is a predictor of male IPV perpetration. Reed et al. (2010) also found that racial discrimination increases the risk for IPV among African American couples. This is due to race-related stress because of blocked opportunities, perceptions of violence as necessary, hopelessness and negative views of one's racial group (Sutton et al., 2019). Similarly, Meyer, Durrheim and Foster (2016) argue that South Africa's history of racism and classism contributed to male IPV perpetration. Black and Coloured men in South Africa suffered oppression from the whites and this resulted in Black and Coloured men directing their frustrations and anger towards their intimate partners (Meyer et al., 2016).

Place of Residence

Various studies have acknowledged that urban environments contribute to and also prevent IPV perpetration (Holliday et al., 2019; Peitzmeier et al., 2016). Urban environments are characterised by high levels of violence. Socio-structural factors in the urban environment increase the risk of violence (Kamndaya et al., 2017), including homicides and street violence. Whilst women are likely to be victims of IPV, men are more likely to be experienced violence perpetrated by strangers and this, in turn, increases their chances of using IPV (Mittal et al., 2013; Reed et al., 2011; World Health Organization, 2012). According to a study that was done by Peitzmeier et al. (2016), young men that were victimized by past-year community violence in Johannesburg, Baltimore and Delhi were more likely to be IPV perpetrators within this timeframe. However, there are protective factors that prevent IPV perpetration in urban environments. Unlike rural areas, most campaigns and programmes to prevent violence against women are implemented in urban areas. This may reduce male IPV perpetration in urban areas. In a study that was done in Vietnam, Fisher and colleagues (2013) found that the prevalence of IPV against women is high in rural Vietnam compared to urban areas. This is consistent with a study that was done in rural Western Cape province in South Africa where high perpetration of IPV among young men was documented compared to urban areas in the province (Dunkle et al., 2016; Jewkes et al., 2006).

Behavioural factors

Sexual behaviours - Multiple studies have found that IPV perpetrators are more likely to engage in risky sexual behaviours including having multiple partners and unprotected sex with both steady and casual partners (Abrahams, Jewkes, Hoffman, & Laubsher, 2004; Abrahams et al., 2006; Dunkle et al., 2016; Townsend et al., 2011). Globally, perpetrating sexual and/or physical intimate violence has been associated with men who engage in behaviours that increase their HIV risk. These behaviours include having multiple partners, engage in transactional sex and inconsistent condom use (Townsend, Jewkes, Mathews, Johnston, Flisher, et al. 2011). A study conducted in South Africa reported that Black African men aged 25-49 years who are IPV perpetrators have HIV related risk behaviours. Also, previous research studies found that coercive condom practices including anger and/or condom refusal in response to a condom request are more common among male IPV perpetrators (Decker et al. 2009; Townsend, Jewkes, Mathews, Johnston, Flisher, et al. 2011).

Alcohol and substance use - Several studies have documented the association between problematic alcohol use and IPV perpetration (Abrahams et al., 2006; Dunkle et al., 2004; Zablotska et al., 2009). A study that was done in South Africa found that problem alcohol and substance use was significantly related to sexual and physical IPV among men (Townsend et al., 2011). This is consistent with other studies done in Uganda where is it was found that problematic alcohol use is strongly related to sexual IPV among the working-class men (Amegbor & Pascoe, 2019; Devries et al., 2014). Jewkes et al. (2011) argue that alcohol and substance use decrease one's passiveness and this makes one more active and braver enough to be violent. Thus, some men would take advantage of this and drink to be able to express themselves which at the end would result in violence. Contrarily, there is a study that found no relationship between alcohol use and IPV (Simbayi et al., 2006). However, it is highly possible that the different measures of alcohol consumption used by these studies account for this contradiction.

Gender attitudes - The use of violence is more common among men who endorse patriarchal norms supporting male dominance and sexual entitlement (Machisa & Shamu, 2018). Previous studies on IPV attitudes have produced substantive evidence that IPV acceptance attitudes are associated with IPV preparation. Patriarchal society structures play a vital role in motivating and

reinforcing individual attitudes of gender inequality, which in turn are likely to facilitate support for male IPV perpetration. For instance, women in China are subject to subordinate positions that are highly susceptible to violence including IPV and this is due to traditional patriarchal beliefs in Chinese societies (Lin et al., 2016). Similarly, a study done by Messersmith et al. (2017) found that acceptance and experience of IPV are common and normative in Tanzania. In this study, a high proportion of men reported that beating a partner/wife is justified if she goes out without telling him, neglect the children, argue with him, refuse to have sex with him, or burn the food. Surprisingly, a study done by Uthman et al. (2009) in 17 sub-Saharan countries found that both women and men indicated that a man was justified in beating his wife. According to Messersmith et al. (2017), men that were exposed to male perpetrated IPV during childhood are more likely to justify beating a partner/wife in adulthood. Inequitable attitudes regarding gender norms contribute to the normalisation of male IPV perpetration.

2.2.3 Effects of male IPV perpetration

IPV perpetration continues to be societal, public health and economic concern (Birkley & Eckhardt, 2015). Over a lifetime, more than 35.6% will have experienced physical violence, emotional violence, rape and or stalking by a male intimate partner (Black et al., 2011). According to WHO (2017), the global IPV prevalence rate is 30%. However, IPV perpetration varies according to regions. According to WHO (2017), the lifetime prevalence of male perpetrated IPV in Africa is 37%. IPV, which is largely perpetrated by men, has been found to have devastating physical, emotional and psychological and economic consequences for victims. While both males and females may experience IPV, it was found that globally females experience the greatest burden and consequences of IPV (VanderEnde et al., 2016).

Physical health

Previous studies show links between IPV and negative physical health problems for survivors. Victims of IPV has been found to be experiencing acute and chronic physical health problems like pain syndromes (neck and back pain), severe headaches, abdominal pains, heart diseases and other digestive disorders (Campbell, Glass, Sharps, Laughon, & Bloom, 2007; Christofides et al., 2018; Coker, Smith, Bethea, King, & McKeown, 2000; Coker et al., 2000; Ellsberg, Jansen, Heise, Watts, & Garcia-Moreno, 2008; Okafor et al., 2018; Vives-Cases, Ruiz-Cantero, Escribà-Agüir, & Miralles, 2010). In America, it was found that women are nine times more likely to be

injured in their homes by their male partners than in the streets. IPV which is primarily perpetrated by men against women, accounts for more injuries to women than car accidents, muggings and rapes combined (Whitaker et al., 2017). These results are consistent with a study done by Heise (2018), which reported male intimate partners committed 40-60% of femicides in North America. Even after IPV episodes has ended, its effects can manifest as poor health status, poor quality of life and high use of health services. Research has also found that females that have violent partners are at risk of HIV infection and risk health behaviours such as alcohol and substance use (Townsend et al., 2011).

Mental health

Studies on the effects of IPV on victims' mental health has increased significantly in the past 2 decades (Stöckl & Penhale, 2015). According to Beydoun et al. (2017), the most prevalent mental health symptoms include; post-traumatic stress disorder (PTSD), and depression and anxiety. IPV perpetrated by male partners has also been strongly associated with suicidal behaviour, sleep and eating disorders, social dysfunction, and an increased likelihood of substance abuse among women (Devries et al., 2013; Stöckl & Penhale, 2015). Alcohol and substance use is a major mental health concern that was found among women who were victims of IPV in America. A study that was done on mental health problems among women with a history of IPV (perpetrated by their partners) in the USA reported that victims had a 3 to 5 times greater probability of depression, PTSD, and drug use than women who were not victims (Dutton et al., 2013). A study done in Cape Town, South Africa by Stöckl and Penhale (2015) showed that IPV is strongly associated with depression symptoms compared with females that were not exposed to IPV.

Sexual and reproductive health

In addition to physical and mental health effects, IPV has been found to be associated with sexual and reproductive health consequences among females. Exposure to IPV poses significant risks to both the women and the unborn child (Okafor et al., 2018). Victims of IPV are prone to vaginal bleeding, increased rates of sexually transmitted infections, vaginal infections, miscarriage, pelvic pain, painful sexual intercourse, painful urination, unintended pregnancies, urinary tract infections, preeclampsia, multiple abortions, preterm delivery, neonatal death and low birth weight (Okafor et al., 2018; Orpin et al., 2017). Women that experience IPV during

their pregnancies have higher rates of low birth weight infants, stillbirths and preterm births, as compared to those who do not (Okafor et al., 2018). Consequences of IPV and low antenatal care-seeking behaviour among victims of IPV significantly contribute to high infant and maternal mortality rates.

Studies from around the world show that IPV perpetrated by men against their pregnant female partners is common in developing nations where it is high as 32%, whereas in developed countries the prevalence rate is less than 12% (Halim et al., 2018). Halim et al. (2018) reported that Latin American and African countries have higher rates of IPV during pregnancy than European and Asian countries. These findings are consistent with a study that was done in Zimbabwe which reported that the prevalence rate of IPV during pregnancy is 63.1% (Orpin et al., 2017). A study that was done in rural South Africa among pregnant women reported that the prevalence is high (31%) and this is consistent with other studies (Hoque et al., 2018).

Morbidity and mortality

Worldwide, IPV has been associated with morbidity and high mortality among the female population (Okafor et al., 2018). However, recent studies reported that there is an increasing number of males being murdered by their female intimate partners. Research has highlighted that victims of IPV, mostly women, are at greater risk of having a violent death through homicide or suicide (Devries et al., 2013; Kivisto, 2015; Okafor et al., 2018). Intimate partner homicide has been identified as one of the most extreme forms of IPV perpetrated by men. At least one in seven homicides are perpetrated by a male intimate partner, globally (Adhia et al., 2019). The proportion of women is even more troubling. A recent study done in the U.S. shows that 55% of all homicides of women were IPV related (Adhia et al., 2019). According to Okafor et al. (2018), IPV was found to be significantly associated with worse depressive symptoms in a longitudinal study that was done in South Africa. Depression is also significantly associated with suicides in South Africa (Okafor et al., 2018). In South Africa, male IPV perpetration is the leading cause of morbidity and mortality of females. Over 50% of the women homicides victims in South Africa are killed by their intimate partners (Gass et al., 2017).

2.2.4 Deficiencies in the literature

Globally, the body of literature on male IPV perpetration has limitations. Most studies are almost exclusively North American, usually with small samples, and overwhelmingly participants have

been drawn from college students or incarcerated perpetrators of violence (Abel & Rouleau, 1990; Bachar & Koss, 2001; Drieschner & Lange, 1999; Dunkle et al., 2016). The research has generally not differentiated between findings related to violence between partners and non-partners. Research is undertaken in developing countries (Abrahams, Jewkes, Laubscher, & Hoffman, 2006; Devries et al., 2013) have tended to focus on violence against women between non-partners rather than intimate partners, either because the latter were not measured, or the reported prevalence was very low.

There is a lack of research on male IPV perpetration with general population samples and with national coverage in South Africa. Previous studies on male IPV perpetration in South Africa have not occurred at the national level, but at the city or provincial levels only; or they have looked at only sub-populations of men – such as adolescent age groups and young adults. An understanding of the profile and characteristics of male IPV perpetrators on a national scale is very important in developing programmes and interventions to curb IPV. To fill this gap in the literature, the current study used a nationally representative cross-sectional data to examine the sociodemographic and behavioural factors associated with male IPV perpetration in South Africa.

2.3 Theoretical framework

Several theories have been proposed over the years to explain IPV perpetration and these theories offer differing explanatory frameworks for conceptualising IPV perpetration. Theories to be discussed in this section have influenced IPV perpetration research and they have found some degree of empirical support.

2.3.1 Social-Structural Theory of Violence

Social-structural theory of violence gives more prominence to the sociodemographic and socioeconomic factors as causes of male IPV perpetration (Reed et al., 2010). According to Straus, Gelles and Steinmetz (2017), male IPV perpetration is a direct response to social-structural and situational stimuli. For male IPV perpetration to occur, two conditions exist, firstly, structural or situational stress and secondly, the potential batterer have been socialised to view IPV perpetration as an appropriate response to certain situations, for instance, frustration (Lombard & McMillan, 2013). The social-structural theory holds the assumption that less-educated, lower-income, lower occupational status men are more likely to experience both

structural and situational stress. This stress will influence men to engage in risky behaviours such as alcohol and drug use, multiple sexual partners and inconsistent condom use. These beahaviours are found to be risk factors for IPV perpetration. Structural and situational stress put men at risk of perpetuating IPV against their partners. In addition, men in different socioeconomic groups are socialised differently in their acceptance of partner violence (Flowers, 2010).

Social-structural theorists argue that large scale variables such as the social and cultural structure, social classes, poverty, race, ethnicity and ecological areas are significantly associated with male IPV perpetration (McCue, 2018). Despite male IPV perpetration being found among all income categories, social classes and education levels, a disproportionate number of male IPV perpetrators are poor and unemployed. These men have inadequate resources to cope with the normative demands and as a result, they become violent towards their partners because of the stress (McCue, 2018). Thus, this theory explains male IPV perpetration in terms of the way it is determined by social forces or stressors. According to the social structure theory of violence, male IPV perpetration is also determined by the degree of educational discordance between partners (Reed et al., 2010). This theory holds the assumption that due to gender inequality; men have high access to education and employment. This increase women's economic dependency on their male partners, which is a known factor for male IPV perpetration (Krishnani et al., 2012).

2.3.2 Social Learning Theory

This theory was initially developed by first name Bandura (Bandura, 1971). Social learning theorists expanded this model to explain IPV perpetration and hypothesized that IPV perpetration is initially acquired through observing other's behaviour, attitudes and outcomes of those behaviours (Bell & Naugle, 2018). Behaviours such as alcohol and drug use, multiple sex partners and inconsistent condom use are behaviours that are learnt through socialization. Several studies have found that these behaviours are associated with male IPV perpetration. According to social learning theory, IPV perpetrators are thought to have been exposed to behaviours associated IPV. This results in an increased acceptance of violent behaviours within families, communities and other social institutions. Research has also proven that exposure to abuse or IPV is significantly associated with future perpetration of violence (VanderEnde et al., 2016). Learning positive outcomes following IPV perpetration may increase the individual's

expectations that future violence will lead to similar outcomes and this reinforces the IPV perpetration (Bell & Naugle, 2018).

Social learning theory has been influential in developing programs that emphasize non-violent methods for addressing partner conflict. According to the social learning theory, witnessing or exposure to either positive or negative consequences of IPV may be sufficient to determine if an individual will engage violent behaviours in the future (Bell & Naugle, 2018). Despite being exposed to IPV, sociodemographic factors like highest education level attained have been found either directly increase or decrease IPV perpetration after an individual has observed behaviours associated with male IPV perpetration. For example, educated men are more likely to use constructive nonviolent ways to resolve conflicts with their partners. This will directly reduce the risk of male IPV perpetration even if the individual was socialized in a violent environment. However, this theory has been criticized by several authors that not all men who are exposed to abusive environments or have been abused will become abusive partners. This theory fails to incorporate other individual risk factors for male IPV perpetration (Kelly, 2011).

2.4 Conceptual framework

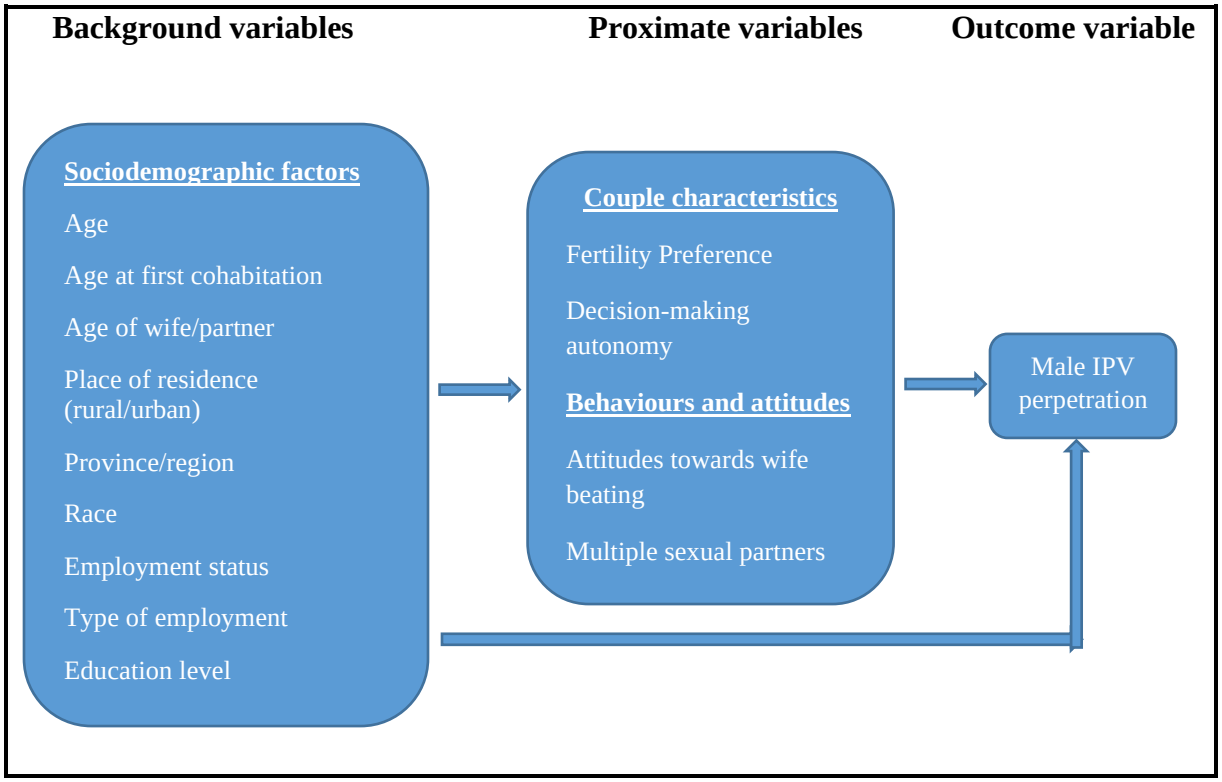


Figure 2.1: Conceptual framework of Male IPV perpetration

Figure 2.1 outlines the broader conceptual framework of the determinants of male IPV perpetration. The conceptual framework was adapted from the social-structural model of IPV perpetration (Machisa, Christofides, and Jewkes 2016). In creating the conceptual framework, the socio-structural theory of violence was adopted to come up with the sociodemographic variables. The social learning theory was then used to explain the proximate variables which include couple characteristics, behaviours and attitudes.

The above framework posits those background variables which include sociodemographic factors such as age, age of wife/partner, age at first cohabitation, place of residence (rural/urban), province/region, race, employment status and education level. The background variables work through the proximate variables, which include fertility preference, decision-making autonomy, multiple sexual partners and attitudes towards wife-beating. Education level determines attitudes towards beating wife, it is argued that men with higher education are less likely to justify beating a wife/partner (Lawoko, 2008). It is plausible that some elements of the educational package may be fundamental in modifying patriarchal attitudes. Attitudes towards wife-beating have a direct influence on IPV. According to Messersmith et al. (2017), men with attitudes of gender inequality are more likely to perpetrate IPV in their lifetime.

Also, the conceptual framework shows that background variables have a direct effect on male IPV perpetration. Literature shows that age directly influences male IPV perpetration with young adult males having a higher likelihood of perpetrating IPV. Place of residence has also been found to have a direct influence on male IPV perpetration. The male IPV perpetration prevalence varies between (1) provinces and (2) between rural and urban areas. According to the structural theory, poor and unemployed men are more likely to experience both structural and situational stress which increase the risk for IPV perpetration. These men have inadequate resources to cope with the normative demands and as a result, they become violent towards their partners because of the stress (McCue, 2018). Thus using the above conceptual framework, the study posits that sociodemographic factors and behavioural factors can increase or decrease IPV perpetration among men in South Africa (Bell & Naugle, 2018).

CHAPTER THREE: METHODOLOGY

3.1 Introduction

The chapter provides the methodology used to meet the objectives of this study. This includes a description of the study design, data source, study population, sample size, questionnaire design, study variables, hypothesis, ethical issues and data analysis. The final section of the chapter will discuss the limitations of the study.

3.2 Study design

This study used a cross-sectional design. According to David and Sutton (2011), a cross-sectional design is characterised by data collected at a single point in time over a short period. This study involves secondary data analysis that utilised secondary data obtained from the South African Demographic and Health Survey (SADHS, 2016) which was conducted in 2016.

3.3 Data source

Data that was used for this study was obtained from the South Africa Demographic and Health Survey (SADHS) that was conducted in 2016. Demographic and Health Surveys (DHS) are nationally representative household surveys that provide data for a wide range of monitoring and impact evaluation indicators in the areas of population, health, and nutrition (Durevall & Lindskog, 2015). The survey aims to provide a better understanding of the basic demographic and health indicators of the population in South Africa.

The dataset that was used for this study is the male recode (ZAMR71FL.DTA) from the SADHS 2016. A recode is a standardised DHS dataset for each country, which contains both standard and country-specific variables (Corsi et al., 2012). The male recode has all the information on all males in South Africa from age 15-59, including men's sociodemographic and socioeconomic characteristics that are included in this study. It is from this recode that all males enumerated in the Demographic and Health Survey (2016) are drawn and constitute a sample that is representative of the total population of all South African men (Durevall & Lindskog, 2015).

3.4 Study population and sample size

The study population are all males in South Africa, who are included in the male recode. The sample includes all adult men that have been in a relationship. All males below the age of 20 and those that were never in a relationship were excluded from the study. The males from all the nine

provinces in the country and geographic locations were represented. The total number of males in the survey is 3618. This analysis sample size of the study was obtained from only a total of 1475 (weighted) men aged 20-59 who are in a relationship or have been in a relationship before. Only men who have been or are in a relationship were selected because the study was aimed at measuring male IPV perpetration. About 118 (19%) males reported perpetrating IPV. To ensure national representativeness of the data, weighting was done to correct oversampling and undersampling. Data weighting refers to the tabulation of results characterised by re-balancing the data with purposes of accurately reflecting the population (Biemer & Christ, 2008).

3.5 Questionnaire design

The SADHS 2016 includes the men's questionnaire which collected information from all males between the ages 15-59. The questionnaire included background characteristics such as education, age, region, socioeconomic status, household characteristics, disability, place of residence and marital status, amongst others. The questionnaire further included behavioural factors: sexual activity, alcohol and substance use as well as partner violence. Data on male IPV perpetration was collected by asking the respondents if they have ever hit their partner with their hand or an implement in the past 12 months.

3.6 Study variables

3.6.1 Dependent variable

Table 3.6.1 shows the dependent/outcome variable which was male IPV perpetration. Two variables which are sm620a and sm620b were combined to make one outcome variable, male IPV perpetration. Variable sm620a included a record of males who have hit their partners with a hand and sm620b included males who have hit their partners with an implement. The outcome variable, male IPV perpetration had two categories which are 'not IPV perpetrator' and 'IPV perpetrator'. IPV perpetrators were men who responded 'yes' to the question: have you ever hit (with an implement or a hand) your partner in the past 12 months? Those who responded 'no' were 'not IPV perpetrators'. For this study, men who have never perpetrated IPV were coded as 0 whilst those who have perpetrated IPV were coded as 1. Male IPV perpetration in this study was considered as the physical violence by men towards their female partners.

Table 3.6.1 Dependent variable

Variable code	Variable name	Original codes from the survey	How the variables are coded in this study.
Physical violence			
sm620a sm620b	• past 12 months have ever: hit with hand • past 12 months have ever: hit with an implement	No (0) Yes (1)	Not IPV perpetrator (0) IPV perpetrator (1)

3.6.2 Independent variables

Table 3.6.2 above shows the independent variables for this study which were demographic, socioeconomic, couple characteristics and behavioural factors. Demographic factors were the background of the male participants which includes age and age at first cohabitation. Males' socioeconomic status included employment status, type of employment, region and level of education. The control variable included age of wife/partner and risk behavioural factor included the number of sexual partners.

The variable age referred to male's current age in complete years, grouped into seven groups in 5-year intervals for males. For univariate and bivariate analysis, this study categorized the males' age into four groups which are 20-29, 30-39, 40-49 and 50-59 years. However, for multivariate analysis, the variable age was treated as a continuous variable. Males that are 15-19 years were excluded (dropped) from the study because only 1 out of 647 reported that he was in union/relationship.

Age of wife/partner referred to the current age of the participants' partner/wife which is from 16-68 years. For univariate and bivariate analysis, the variable age of wife/partner was categorized into four groups which are 25 and below, 26-35, 36-45 and 46 and over. However, for multivariate analysis, the variable age of wife/partner will be treated as a continuous variable.

Age at first cohabitation included the exact age of the participants when they started cohabiting. The age range is 8-54. This variable was also categories into four groups for univariate and

bivariate analysis. The categories included 25 and below, 26-35, 36-45 and 46 and above. For multivariate analysis age at first, cohabitation was treated as a continuous variable. Variables that included age intervals were made neither too large nor too small so that results were both relevant and that no information was lost (Pagano & Gauvreau, 2018).

Male IPV perpetration differs from the participants' environment and socioeconomic status. The type of place of residence referred to where the interview with the respondent took place, either urban or rural, which represents the kind of environment males come from. In literature, Male IPV perpetration rate is found to be high among males from rural areas. However, variable region identifies the province from which the respondent took place. All provinces in South Africa were included which are Western Cape, Eastern Cape, Northern Cape, Free State, Kwazulu-Natal, North West, Gauteng, Mpumalanga and Limpopo.

The highest level of education provided the level of the highest education attended by the participants. In this study, it was grouped into three categories, which were, males with no/primary, secondary and tertiary/higher education. Males with no education and primary education were grouped as one category. Previous studies have demonstrated that IPV perpetration is high among males with no or primary education.

Employment status referred to the males' current working status, whether they were employed (working) or not employed (not working) in the last 12 months before they were interviewed. Literature shows that male IPV perpetration differs by whether or not the male is working or not. The variable occupation/type of employment refers to the type of job/work that males are currently doing or have done in the last 12 months before they were interviewed.

In the study, the variable, occupations were grouped into low-skilled, semi-skilled and skilled. Low-skilled category included service workers; shop and market sales, elementary occupation, domestic workers and agricultural unskilled workers. Semi-skilled category included skilled agricultural and fishery workers, craft and related trade workers, plant and machine operators and assembly workers. Skilled category included legislators; senior officials and managers, professionals, technicians and associate professionals and clerks. Males that were not working or not employed in the past 12 months before the interview were not included in this variable because the study is interested in assessing the association between type of employment

(occupation) and male IPV perpetration. Male IPV perpetration differs by the type of employment or occupation.

The variable fertility preference refers to the desire of men to have another child. The variable has 6 categories which have another, undecided, no more, sterilized (respondent or partner(s)), Declared infecund (respondent or partner, never had sex and man has no partner. For this study, the fertility preference variable was categorized as having another, undecided and want no more.

The variable decision-making autonomy refers to the person who usually decides how to spend the respondent's earnings. This variable has four categories, which include respondent alone, respondent and wife/partner, wife/partner alone and someone else. In this study, the variable decision-making was only included three categories which are respondent alone, respondent and wife/partner, and wife/partner. Previous investigations found that male-dominated or female-dominated decision-making are associated with IPV, while joint decision-making is protective (Hove & Gwazane, 2011).

The number of sex partners variable refers to males who had sexual intercourse with more than one sexual partner, excluding the spouse, in the past 12 months. The number of sexual partners ranges from 0-95, however for the study the variable was categorized into two categories, namely; one sexual partner and multiple sexual partners.

The variables described above serve as background variables which are associated (directly and indirectly) with intimate partner violence as indicated by the conceptual framework in the previous chapter. Previous studies show a link between sociodemographic and socioeconomic factors and male IPV perpetration.

Attitudes towards wife-beating variable include information collected on men’s attitudes towards beating a wife/partner in five separate circumstances. These circumstances included: wife/partner burns the food, wife/partner argues with him, wife/partner goes out without telling him, wife/partner neglects the children, and wife/partner refuses to have sex with him. Men that answered “yes” to at least one of these circumstances were considered ass having attitudes justifying beating a wife/partner. And those that answered “no” were classified as not having attitudes justifying beating a wife/partner.

Table 3.6.2 Definitions of independent variables

Variable code	Variable name	Original codes from the survey	How variables are coded in this study
Background variables: Demographic factors			
mv013	Current age	15-19 (1) 20-24 (2) 25-29 (3) 30-34 (4) 35-39 (5) 40-44 (6) 45-49 (7) 50-54 (8) 55-59 (9)	20-29 (1) 30-39 (2) 40-49 (3) 50-59 (4)
mv511	Age at first cohabitation	8-54 (continuous variable)	19 and below (1) 20-29 (2) 30-39 (3) 40 and over (4)
mv034b_1	Age of wife/partner	16-68 (continuous variable)	25 and below (1) 26-35 (2) 36-45 (3) 46 and above (4)
mv025	Place of residence	Urban (1) Rural (2)	Urban (1) Rural (2)
mv024	Region	Western Cape (1) Eastern Cape (2) Northern Cape (3) Free state (4) Kwazulu-Natal (5) Northwest (6) Gauteng (7) Mpumalanga (8) Limpopo (9)	Western Cape (1) Eastern Cape (2) Northern Cape (3) Free state (4) Kwazulu-Natal (5) Northwest (6) Gauteng (7) Mpumalanga (8) Limpopo (9)
mv131	Race	Black/African (1) White (2) Coloured (3) Indian/Asian (4) Other (996)	Black/African (1) White (2) Coloured (3) Indian/Asian/other (4)
Background variables: Socioeconomic factors			
mv714	Employment status	No (0) Yes (1)	Not working (0) Working (1)
mv106	Educational level	None (0)	None + Primary (1)

		Primary (1) Secondary (2) Tertiary/Higher (3)	Secondary (2) Tertiary/Higher (3)
mv716	Type of employment	Not working (0) Legislators; senior officials and managers (1) Professionals (2) Technicians and associate professionals (3) Clerks (4) Service workers; shop and market sales (5) Skilled agricultural and fishery workers (6) Craft and related trade workers (7) Plant and machine operators and assembly (8) Elementary occupation (9) Domestic workers (10) Agricultural unskilled (11) Don't know/not classified (9998)	Low-skilled (1) Semi-skilled (2) Skilled (3)
Proximate variables: Relationship/couple characteristics			
mv602	Fertility Preference	Have another (1) Undecided (2) No more (3) Sterilized (respondent or partner(s)) (4) Declared infecund (respondent or partner (5) Never had sex (6) Man has no partner (8)	Have another (1) Undecided (2) Want no more (3)
mv739	Decision-making autonomy**:** a person who usually decides how to spend the respondent's earnings	Respondent alone (1) Respondent and wife/partner (2) Wife/partner alone (4) Someone else (5)	Respondent alone (1) Respondent and wife/partner (2) Wife/partner alone (4)
Proximate variables: Attitudes and behavioural factors			
mv766b	number of sex partners, excluding the spouse, in the last 12 months	0 (0) 1 (1) 2 (2) 3 (3) 4 (4) 5 (5)	One sexual partner (1) Multiple sexual partners (2)

		6 (6) 7 (7) 8 (8) 9 (9) 10 (10) 14 (15) 20 (20) 23 (24) 30 (30) 50 (50) 95 (95) don't know (98)	
mv744	Attitudes towards wife-beating	No (0) Yes (1) Don't know (8)	No (0) Yes (1)

3.7 Data Management

The male recodes (ZAMR71FL.DTA) from the SADHS 2016 was managed and analysed using STATA software version 15. Independent and dependent variables were recoded as illustrated in table 3.5.1 and 3.5.2.

3.8 Data analysis

To be able to address the research question in the study, each of the research objectives was addressed.

3.8.1 Objective 1: To determine the levels of IPV perpetration among men in South Africa

The first phase involved the univariate analysis which described the background characteristics of the respondents by using a series of frequencies and percentage distributions. The background characteristics presented information of the respondents on the following: age, age of wife/partner, age at first cohabitation, employment status, region and level of education. The univariate analysis assisted in indicating how the categories in each variable are distributed, including the levels of male IPV perpetration in South Africa and these were presented on a pie chart and frequency tables. Frequency tables were used for the univariate analysis of the variables used in the study. The frequency tables provide a good indication of the overall picture of what the data look like. The tables show both the total number as well as the percentage of

each category in all independent variables included in the study. All variables that had a total *n* value below 1475 had missing values. Despite the missing values, the frequency of each interval can be compared as not all the variables had equal counts in their absolute values (Pagano & Gauvreau, 2018). This made it possible to meet the first objective of the study, which is to determine the levels of male IPV perpetration in South Africa.

The second phase was the bivariate analysis where a chi-square test for independence was conducted. The test was conducted to determine whether there is a significant association between the two variables from a single population (Nesselroade & Grimm, 2018). It involved the cross-tabulation of the outcome variable, male IPV perpetration with all the independent variables using Pearson's chi-square test. The chi-square test for independence was used to determine whether there is a significant relationship between independent variables (demographic and socioeconomic factors) and the dependent variable (male IPV perpetration). The P-value was used to determine whether the difference will be statistically significant at 95% level of confidence. The probability value (P-value) indicates how likely it is that a result occurred by chance (Nesselroade & Grimm, 2018). If the p-value is 0.05 or below, it indicates the result was unlikely to have occurred by chance alone. These results will be interpreted as being statistically significant.

3.8.2 Objective 2: To examine the relationship between sociodemographic and behavioural factors and male IPV perpetration

The third phase was the multivariate analysis which included examining the association between demographic and socioeconomic factors with male IPV perpetration. This was done to answer the second objective of the study, which involved examining the association between demographic and socioeconomic factors and male IPV perpetration in South Africa. The binary logistic regression was utilised because the outcome variable, male IPV perpetration is categorical and dichotomous. The first category is males who have not hit their partners/wives, coded as 0 and the second category is coded 1, representing males who had hit their partners/wives. Interpretations of results were made using odd ratios (OR) with OR>1 indicating a higher likelihood of male IPV perpetration, OR<1 indicating a lower likelihood and OR=1 indicating no difference. The level of significance was set at 0.05, and a confidence interval (CI) of 95% was used. The formula for the binary logistic is indicated below by (Warner, 2013):

Logit [P(y = 1)|Xi…Xk] = βo + β1X1 + β2X2.....βkXk

Where:

Bo= Intercept

B1= Regression Coefficient

Xi…Xk=Independent Variables

Xi= Independent Variable

Both adjusted and unadjusted models were done for each of the binary regression analysis models. Unadjusted model findings included the relationship between an independent and dependent variable with no control for covariates or confounders. However, the findings of the unadjusted model are generally recognised as having high potential for bias due to confounding (Voils et al., 2011). Thus, the findings of the adjusted models were added in the analysis. Three adjusted models were done which include a full model with all independent variables, a model with sociodemographic variables and a model with only behavioural factors. The adjusted models were used to adjust or account for differences in confounding variables that were measured in this study (Menard, 2010). The adjusted models compare the descriptive power of regression models that include a diverse number of independent variables.

Multicollinearity test

Multicollinearity between the variables was checked to makes sure that the independent variables in the study were not highly correlated to one another. The Variance Inflation Factor (*vif*) command was used after the regression to check for Multicollinearity in STATA version 15. Variance Inflation Factor was used to detect if any of the independent variables were correlated. Variables that had a VIF value of 10 or a tolerance level of 0.1 and/ below were removed from the analysis. Variable that had age differences between intimate partners were removed from the analysis because it was highly correlated with the following variables: age of respondents, age at first cohabitation and age of wife/partner. The VIF value of the removed variable was 10. Multicollinearity can cause unstable estimates and inaccurate variances which affect confidence intervals and hypothesis tests (Shen & Gao, 2008). The table that shows the multicollinearity test is attached as appendix 2, page 110.

Goodness-of-fit test

The Pearson goodness-of-fit test was conducted to assess the model fitness. The p-value for the goodness-of-fit test was 0.001 which means the model fits well. This means that the predicted probabilities deviate from the observed probabilities in a way that the binomial distribution does not predict (Warner, 2013). See appendix for the Pearson goodness-of-fit test.

3.9 Ethical issues

The study used secondary data and the ethical considerations were dealt with at the first stage of the data collection procedure. The study did not use any biomarkers that would disclose the identities of the respondents and thus their anonymity is assured. Since the study analysed secondary data, the respondents' identifier information was removed as per the protocols of all Demographic Health Surveys.

Moreover, all respondents gave informed consent before participation and all information was treated with confidentiality. Therefore, the participants' rights were not infringed when the information was collected. The survey protocol was reviewed and approved by the South African Medical Research Council (SAMRC) Ethics Committee and the ICF Institutional Review Board. Also, permission was granted by DHS to use the data set for this study. In this respect, no ethical clearance was required to undertake the study. The researcher applied for an ethics waiver to the School of Social Sciences Ethics Committee and ethical clearance was granted. Ethics waivers are granted for research using anonymous secondary data sources. The ethics waiver number for this study is WDEMG2019/07/11.

CHAPTER FOUR: RESULTS

4.1 Introduction

Chapter four presents the results of this study. First to be presented are the results relating to the first objective of the study. This includes determining the levels of male IPV perpetration in South Africa. To answer the first objective univariate and bivariate analysis was done. The univariate analysis includes background characteristics of men and the levels of IPV perpetration among men in South Africa. The bivariate analysis assessed male perpetration of IPV with independent variables of the study using the chi-square test and cross-tabulation. The second presentation of results relates to the second objective of the study aimed at examining the association between sociodemographic and behavioural factors and male IPV perpetration. The binary logistic regression (unadjusted and adjusted) was done to assess the relationship between sociodemographic and behavioural factors of men with male IPV perpetration.

4.2 Levels of IPV perpetration among men in South Africa

The first objective of this study was to determine the levels of male IPV perpetration in South Africa which is presented in Figure 4.1.

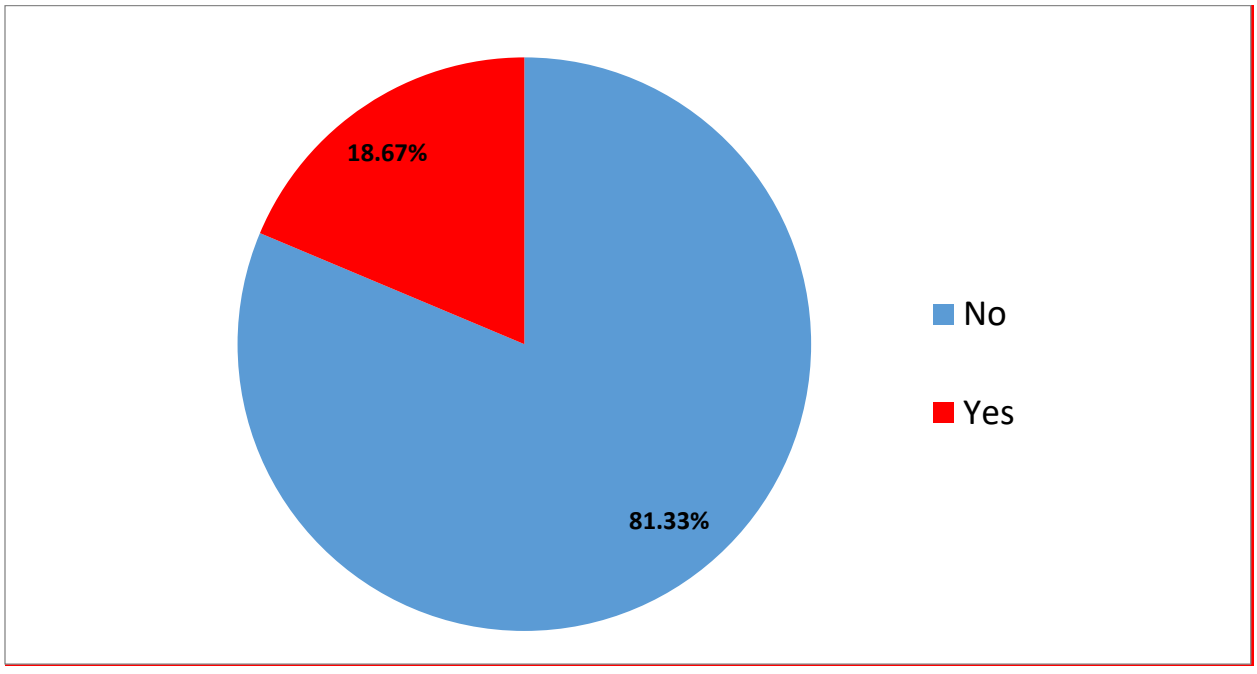


Figure 4.1: Male IPV perpetration in South Africa

Figure 4.1 shows that about 19% of men in South Africa have perpetrated physical IPV.

Background characteristics of the sample based on weighted frequencies from SADHS 2016

Table 4.1 indicates the background characteristics of males in the study. The first variable is age, men in this study were between ages 20-59 (n=1475). The mean age of males in the sample was 41.82 and the standard deviation was 9.87. The frequency distribution and relative frequency of men's ages simply show that a higher number of males were in the age group 30-39 with a percentage of 32% (n=479) followed by men in the age group 40-49 (31%; n=458) and 50-59 (26%; n=347). Those who were 20-29 were the smallest with 13% (n=191). The table shows that the range of age at first cohabitation is 8-54 years. The mean age at first cohabitation is 27.41 and the standard deviation is 7.63. The categories of age at first cohabitation shows that over fifty percent of men started cohabiting in the group 20-29 (57%; n=848), followed by the age group 30-39 with 24% (n=353). Twelve percent of men in this study started cohabiting below the age of 20 (n=177) and only 7% at age 40 or above (n=97).

The sample also included age of wife/partner which ranges from 16-68 years old. The mean age of wife/partner is 37.28 and the standard deviation is 10.06. Majority of men had partners who were 26-35 years old (38%; n=488). Twenty-eight percent had a wife/partner who was between the ages 36-45 (n=353), followed by men who had a partner/wife aged 46 or above with 20% (n=252). Only 14% had a wife/partner that was aged 25 or below. Black/African males were the majority in this study, constituting 82.05% (n= 1210), followed by Coloureds who were 9.27% (n= 137), 6.77% were White (n= 100) and the Indian/Asian group were the lowest proportion of 1.91% (n= 28).

Men in this study are from the 9 provinces in South Africa. The Gauteng province had the highest percentage of males in the country (37.4%; n= 551), followed by the Western Cape province with 13.84% (n= 204). Kwazulu-Natal had 10.74% (n= 158) males, North West 8.94% (n= 132), Eastern Cape 8.07% (n= 119), Mpumalanga 8.05% (n= 119), Limpopo 6.81% (n= 100), Free State 4.17% (n= 61) whilst the Northern Cape had the lowest percentage of males 1.97% (n= 29). Place of residence indicates that most males were geographically located in urban areas, with a percentage of 75.89% (n= 1119); whilst in rural areas they were 24.11% (n= 356).

In terms of employment status, most males are employed with a percentage of 69.08% (n= 1019), 30.92% were unemployed (n= 456). The table further shows that in terms of the type of employment, a greater proportion of males, were semi-skilled (40.74%; n= 376), followed by low-skilled workers (33.50%; n= 309), and 25.76% were classified as skilled workers (n= 238). Males with secondary education were the majority, constituting 63.65% (n= 939), followed by males with primary or no education who were 22.07% (n= 325). And males with tertiary/higher education were the lowest, with a percentage of 14.28% (n=211).

Table 4.1 also indicates that men with one sexual partner had a proportion of 89.46% (n= 1319), whilst those who had multiple sexual partners were 10.54% (n=156). When it comes to fertility preferences, most men do not want to have children anymore (53.7%; n= 664), followed by men who want to have another child soon or later (38.3%; n= 474). Only 8% (n= 99) were undecided about having more children. A majority of men (72.12%; n= 688) make decisions jointly with their wives/partners about the use of their earnings. About 20.77% (n= 198) make independent decisions about the use of their earnings. Seven percent of men (n= 68) reported that their earnings are mainly controlled by their wife/partner.

Lastly, Table 4.1 indicates that a higher proportion of men (96.05%; n= 1416) do not justify wife-beating, whilst 3.95% (n= 58) agree that a husband is justified in beating his wife/partner for: burning the food, arguing with him, going out without telling him, neglecting the children, and refusing to have sex with him.

Table 4.1: Background characteristics of the sample based on weighted frequencies from SADHS 2016 (n=1475)

Independent variables	**Frequencies (n)**	**Percentages (%)**
Age		
20-29	191	12.96
30-39	479	32.45
40-49	458	31.08
50-59	347	23.5
Total	1475	100

Min – Max (20 – 59)	Mean= 41.14	S.D= 9.67
Age at first cohabitation		
19 and below	177	12.00
20-29	848	57.48
30-39	353	23.91
40 and over	97	6.60
Total	1475	100
Min – Max (8 – 54)	Mean= 27.41	S.D= 7.63
Age of wife/partner		
25 and below	176	13.83
26-35	488	38.44
36-45	353	27.83
46 and above	252	19.89
Total	1269	100
Min- Max (16- 68)	Mean= 37.28	S.D= 10.06
Ethnicity/Race		
Black/African	1210	82.05
White	100	6.77
Coloured	137	9.27
Indian/Asian	28	1.91
Total	1475	100
Region		
Western Cape	204	13.84
Eastern Cape	119	8.07
Northern Cape	29	1.97
Free state	61	4.17
KwaZulu-Natal	158	10.74
North west	132	8.94
Gauteng	551	37.4
Mpumalanga	119	8.05
Limpopo	100	6.81
Total	1475	100
Place of residence		

Urban	1119	75.89
Rural	356	24.11
Total	1475	100
Employment status		
Unemployed	456	30.92
Employed	1019	69.08
Total	1475	100
Education level		
Primary	325	22.07
Secondary	939	63.65
Tertiary/Higher	211	14.28
Total	1475	100
Type of employment		
Low skilled	309	33.5
Semi-skilled	376	40.74
Skilled	238	25.76
Total	923	100
Number of sexual partners		
One sexual partner	1319	89.46
Multiple sexual partners	156	10.54
Total	1475	100
Fertility Preference		
Want to have another	474	38.3
Undecided	99	8.01
Want no more	664	53.7
Total	1237	100
Decision-making autonomy		
Respondent alone	198	20.77
Respondent and wife/partner	688	72.12
Wife/partner alone	68	7.11
Total	953	100
Attitudes towards wife beating		
No	1416	96.05

Yes	58	3.95
Total	1475	100

4.3 Relationship between sociodemographic characteristics and behaviours of men and male IPV perpetration in South Africa

Table 4.2 above indicates the results of the bivariate analysis which was conducted to examine the association between all the background characteristics of males with IPV perpetration. The Pearson Chi-square test of association (*) indicates a significant relationship between all the independent variables with male IPV perpetration. The results from the Pearson Chi-square analysis shows that only region and type of place of residence were significantly associated with male IPV perpetration in South Africa ($p < 0.05$).

Men aged 40-49 had higher male IPV perpetration of 21% (n= 45) in relation to other age groups. It is followed by men in the age group 50-59 who had male IPV perpetration of 18% (n= 19). Males in the age group 20-29 had reports of perpetrating IPV which were 17% (n=14), respectively. The least male IPV perpetration rates were found among men aged 30-39, with 16% (n= 40). The association between age and male IPV perpetration was not statistically significant.

In term of age at first cohabitation, males who started cohabiting at the age of 20-29 (19%; n=75) and 30-39 (18%; n=28) had the highest reports of IPV perpetration respectively. Followed by males who started cohabiting at the age 40 and/ over with 17% (n=6) of IPV perpetration. The least male IPV perpetration rates were found among males who started cohabiting at the age of 9 or below (12%; n=8).

Surprisingly, males who had a wife/partner who is aged 46 or older had higher IPV perpetration 26% (n= 21) in relation to males who had a younger wife/partner. Followed by males who had a partner/wife aged 36-45 who had 21% (n=41) perpetration. Those with wives/partners aged below 25 had 19% (n=16) IPV perpetration. The lowest perpetration rate (13%; n= 36) was found among males who had partners/wives aged 26-35.

In terms of race, white males had the highest IPV perpetration rate in the country, (29%; n=12), followed by black males 18% (n=94). Coloured had 12% (n=9) whilst Indian/Asian males had the lowest percentage of 7% (n=1).

In terms of the region/province, the results indicate that males in Limpopo had higher IPV perpetration 36% (n=16) in relation to other provinces. It was followed by KwaZulu-Natal with 25% (n=19). Males in Western Cape had reports of IPV perpetration which were 19% (n=22). In Eastern Cape, the reports on male IPV perpetration were 17% (n=9). Among males in Gauteng 16% (n=34) reported enacting violence towards their female partners. Mpumalanga had 15% (n=9) of male IPV perpetration followed by North-West province with 10% (n=5). Males in Northern Cape and Free State had the lowest reports of IPV perpetration, which were 8% (n=1) and 6% (n=2), respectively. The relationship between region/province and male IPV perpetration was statistically significant (x2 33.68; p-value < 0.05).

With regards to the place of residence, males who live in the rural areas of South Africa had a slightly higher IPV perpetration rate of 22% (n=38). Whilst males in the urban areas had 16% (n= 78) perpetration of IPV. The results of the Pearson Chi-square test indicated that the association between place of residence and male IPV perpetration was statically significant (x2 3.76; p-value < 0.05). The table shows that based on education, men with higher/tertiary education constitute a greater proportion 19% (N=19) of male IPV perpetration followed by men with secondary education who had 18% (N= 74) and reports were lower among men with primary and/ no education who have 17% (N= 23). Based on the results as the level of education increased, the reports of male IPV perpetration increased. However, the association proved to be statistically insignificant according to the Pearson Chi-square test.

Based on employment status, IPV perpetration was higher among employed males (19%; n=89) compared to unemployed males (15%; n=28). The association between employment status and male IPV perpetration was statistically insignificant. The highest percentage of male IPV perpetration were recorded among skilled workers (23%; n=64), followed by semi-skilled workers (17%; n=23). The lowest percentage was recorded among low skilled workers (13%; n=30). The chi-square test examining the strength of association between the type of employment and male IPV perpetration revealed that the relationship is insignificant.

Male IPV perpetration was high among those who have multiple sexual partners (24%; n= 13) whilst those who had one sexual partner had 17% (n=103) reports of IPV perpetration. The association between the number of sexual partners and male IPV perpetration was not statistically significant.

The highest percentage of men who reported IPV perpetration was from those who want no more children (20%; n= 68), followed by men who want more children (17%; n= 37). The lowest percentage was recorded among men who are undecided about having more children (13%; n= 06). As shown by the Pearson Chi-Square test, the relationship between fertility preference and male IPV perpetration was not statistically significant.

Based on decision-making autonomy, men who have decision-making control over the use of their earnings had a higher percentage of IPV perpetration (36%; n= 25). Interestingly, men that did not have control over the use of their earnings had 19% (n= 06) reports of IPV perpetration. Men who make a joint decision with their partners over the use of their earnings had the lowest IPV perpetration rate of 16% (n= 60). However, the Pearson Chi-square test indicated that the relationship between decision-making autonomy and male IPV perpetration was not statistically significant.

Interestingly, men that did not have attitudes justifying wife/partner beating had the highest IPV perpetration rate of 18% (n= 113), whilst those that had attitudes towards wife/partner beating had the lowest rate of 14% (n= 03). The Pearson Chi-square test proved that the association between attitudes towards wife/partner beating and male IPV perpetration is not statistically significant.

Table 4.2: Percentage distribution of male IPV perpetration by background characteristics of independent variables (n= 650)

Background variables	**Male IPV perpetration**		**Total**
	No, n (%)	**Yes, n (%)**	
Age			
20-29	67 (83.18)	14 (16.82)	81
30-39	210 (84.17)	40 (15.83)	250
40-49	170 (79.17)	45 (20.83)	215
50-59	86 (82.23)	19 (17.77)	104

Mean	39.66	40.13	39.75
S.D	8.813	8.49	8.75
			Pearson chi2(3) = 0.6431; Pr = 0.887
Age at first cohabitation			
19 and below	56 (87.74)	8 (12.26)	63
20-29	323 (81.26)	75 (18.74)	398
30-39	125 (81.67)	28 (18.33)	153
40 and over	29 (82.99)	6 (17.01)	35
Mean	26.80	27.70	26.96
SD	7.04	5.76	6.83
			Pearson chi2(3) = 3.9604; Pr = 0.266
Age of wife/partner			
25 and below	66 (80.53)	16 (19.47)	81
26-35	238 (87)	36 (13)	274
36-45	152 (78.93)	41 (21.07)	193
46 and above	58 (73.9)	21 (26.1)	79
Mean	34.81	36.32	35.08
SD	8.16	8.39	8.22
			Pearson chi2(3) = 3.1499; Pr = 0.369
Race			
Black/African	425 (81.92)	94 (18.08)	518
White	30 (70.7)	12 (29.30)	43
Colored	64 (87.63)	9 (12.37)	74
Indian/Asian	14 (92.94)	1 (7.06)	15
			Pearson chi2(3) = 1.8392; Pr = 0.606
Region*			
Western Cape	90 (80.68)	22 (19.32)	111
Eastern Cape	41 (82.56)	9 (17.44)	49
Northern Cape	13 (92.43)	1 (7.57)	14
Free State	28 (93.68)	2 (6.32)	30
Kwazulu-Natal	57 (74.83)	19 (25.17)	76
North-West	47 (89.78)	5 (10.22)	52
Gauteng	180 (84.04)	34 (15.96)	214

Mpumalanga	50 (84.59)	9 (15.41)	60
Limpopo	28 (64.13)	16 (35.87)	44
			Pearson chi2(8) = 33.6750; Pr = 0.000
Type of place of residence*			
Urban	402 (83.68)	78 (16.32)	481
Rural	131 (77.55)	38 (22.45)	169
			Pearson chi2(1) = 3.7597; Pr = 0.053
Employment status			
Unemployed	151 (84.52)	28 (15.48)	178
Employed	383 (81.16)	89 (18.84)	471
			Pearson chi2(1) = 0.0234; Pr = 0.878
Education level			
Primary (1)	109 (82.53)	23 (17.47)	132
Secondary (2)	341 (82.18)	74 (17.82)	415
Tertiary/Higher (3)	83 (81.12)	19 (18.88)	103
			Pearson chi2(2) = 0.5265; Pr = 0.769
Type of employment			
Low skilled	111 (82.82)	23 (17.18)	134
Semi-skilled	118 (75.85)	37 (24.15)	155
Skilled	100 (79.19)	26 (20.81)	126
			Pearson chi2(2) = 0.4392 Pr = 0.803
Number of sexual partners			
One sexual partner	492 (82.68)	103 (17.52)	595
Multiple sexual partners	42 (75.63)	13 (24.37)	55
			Pearson chi2(1) = 1.2616 Pr = 0.261
Fertility Preference			
Want to have another	186 (83.4)	37 (16.6)	223
Undecided	42 (86.91)	06 (13.09)	48
Want no more	279 (80.44)	68 (19.56)	347
			Pearson chi2(2) = 1.4491; Pr = 0.485
Decision-making autonomy			
Respondent alone	45 (64.27)	25 (35.73)	70
Respondent and wife/partner	324 (84.4)	60 (15.6)	384

Wife/partner alone	25 (81.49)	06 (18.51)	31
			Pearson chi2(2) = 4.8210; Pr = 0.090
Attitudes towards wife-beating			
No	515 (81.95)	113 (18.05)	628
Yes	19 (85.94)	03 (14.06)	23
			Pearson chi2(1) = 0.1638; Pr = 0.686

4.4 Binary Logistic regression of the association between the independent variables with male IPV perpetration

Unadjusted Odds Ratios for the binary Logistic regression of the association between all the independent variables with male IPV perpetration

Table 4.3 shows the results of the unadjusted binary logistic regression model for male IPV perpetration. The unadjusted binary logistic regression shows that only place of residence, decision-making autonomy and selected categories of the region were statistically significant ($p < 0.05$).

The unadjusted logistic regression model revealed that the odds of perpetrating IPV are almost the same among males who have a partner/wife of any age (OR: 1; CI: 0.997-1.025). One unit increase in age (CI: 0.988-1.039) and age at first cohabitation (CI: 0.982-1.041) is associated with about 5% increase in the odds of male IPV perpetration. It seems that the likelihood of IPV perpetration is high among old men and those that started cohabiting at an old age. Age, age at first cohabitation and age of wife/partner were found to be statistically insignificant predictors of male IPV perpetration ($p > 0.05$) in the unadjusted model.

The unadjusted model shows that the odds of perpetrating IPV are higher among white males compared to black males (OR: 1.12; CI: 0.449-2.803). The odds of IPV perpetration are lower among Coloured (OR: 0.65; CI: 0.301-1.412) and Indian/Asian (OR: 0.46; CI: 0.058-3.604) males in relation to Black males. Race categories are insignificant in the unadjusted model.

In the unadjusted model, only two categories of the region are statistically significant ($p < 0.05$) which are Free State and North West. Males from Free State (OR: 0.24; CI: 0.064-0.922) and North West (OR: 0.2; CI: 0.053-0.753) had significantly lower odds of perpetrating IPV compared to males from the Western Cape. Males from the Northern Cape had lower odds of

perpetrating IPV in relation to males from the Western Cape (OR: 0.42; CI: 0.136-1.296). Also, males from Mpumalanga have lower odds (OR: 0.60; CI: 0.241-1.481) of perpetrating IPV in comparison to those from Western Cape. On the other hand, Males in Limpopo (OR: 2.06; CI: 0.882-4.833), Kwa-Zulu Natal (OR: 1.6; CI: 0.691-3.692) and Eastern Cape (OR: 1.07; CI: 0.421-2.693) have higher odds of perpetrating IPV. In the unadjusted model, the odds of perpetrating IPV were lower among males in Gauteng (OR: 0.98; CI: 0.416-2.323).

The odds of perpetrating IPV were high among males in rural areas compared to those in the urban areas (OR: 1.54; CI: 0.993-2.384). Places of residence are significantly associated with male IPV perpetration. In terms of the employment status of males, the employed category is insignificant in the unadjusted model. Employed males have 1.04 (CI: 0.64-1.684) times higher the odds of perpetrating IPV compared to unemployed males. The unadjusted model shows that education level categories were insignificant. The likelihood of perpetrating IPV increased among males with secondary (OR: 1.06; CI: 0.619-1.82) and higher/tertiary education (OR: 1.29; CI: 0.631-2.629) compared to males with primary/no education.

Type of employment categories was insignificant and the odds of male IPV perpetration were higher among semi-skilled (OR: 1.22; CI: 0.657-2.255) and skilled (OR: 1.19; CI: 0.606-2.326) males in relation to low skilled males. Although not significant, males with multiple sexual partners had higher odds of male IPV perpetration compared to those with one sexual partner (OR: 1.19; CI: 0.627-2.273). The odds of perpetrating IPV were lower among men who were undecided about having more children (OR: 0.56; CI: 0.205-1.508) and those who did not want any more children (OR: 0.98; CI: 0.610-1.583) compared to those who want to have another child. The results showed no significant association between fertility preference categories and male IPV perpetration.

Men who jointly make decisions with partners over the use of their earnings were significantly less likely to perpetrate IPV compared those that make independent decisions (OR: 0.52; CI: 0.277-0.963). This is consistent with a study done by Gage (2005) which found that men who jointly make decisions with their partners on major household purchases are less likely to perpetrate emotional, physical, or sexual violence. Although not significant, men who do not have control over their earnings had lower odds of IPV perpetration than those who have full control over the use of their earnings (OR: 0.43CI: 0.131-1.399).

The unadjusted odds ratios showed that men who had attitudes towards wife/partner beating were more likely to perpetrate IPV in relation to those who do not have attitudes towards wife/partner beating (OR: 126; CI: 0.414-3.821). Attitudes towards wife-beating were not significantly associated with male IPV perpetration.

Binary logistic regression of the association between sociodemographic factors with male IPV perpetration

Table 4.3 shows the adjusted odds ratios for the binary logistic regression of the association between sociodemographic factors and male IPV perpetration. Age, age at first cohabitation, age of wife and region were significantly associated with male IPV perpetration. One unit increase in age is significantly associated with 0.89 (CI: 0.825-0.952) decrease in the odds of perpetrating male IPV. For a one-unit increase in age at first cohabitation, the expected change in log odds of perpetrating IPV is 1.06 (CI: 1.006-1.113) among males in South Africa. A one-unit increase in the age of wife/partner is significantly associated with about 12% increase in the odds of male IPV perpetration (CI: 1.043-1.196). Results from Table 4.3 shows that the odds of perpetrating male IPV are lower among Whites (OR: 0.87; CI: 0.260-2.894), Coloured (OR: 0.96; CI: 0.282-3.298) and Indian/Asian (OR: 0.30; CI: 0.030-2.913) compared to Black males. Race categories were not significantly associated with male IPV perpetration.

With regards to region, only men from the Northern Cape (OR: 0.17; CI: 0.040-0.756), Free State (OR: 0.09; CI: 0.010-0.876) and North West (OR: 0.16; CI: 0.031-0.790) were significantly less likely to perpetrate IPV than men from the Western Cape. Unlike in the unadjusted model, Northern Cape category is now statistically significant in this model. Although not significant, men from the Eastern Cape (OR: 0.50; CI: 0.138-1.838), KwaZulu-Natal (OR: 0.73; CI: 0.203-2.651), Mpumalanga (OR: 0.33; CI: 0.085-1.303) and Limpopo (OR: 0.91; CI: 0.229-3.595) were less likely to perpetrate IPV in relation to men from Western Cape. The likelihood of perpetrating male IPV increased by a factor of 1.04 among men from Gauteng compared to men from the Western Cape (CI: 0.319-3.359). In terms of place of residence, men residing in rural areas were 1.80 times more likely to perpetrate IPV compare to men from the urban areas (CI: 0.842-3.834). However, place of residence was not significantly associated with male IPV perpetration in this model.

Looking at the employment status, employed men were 1.93 times more likely to perpetrate IPV compared to the unemployed men. However, employment status was not significantly associated with male IPV perpetration. In terms of education level, men with secondary (CI: 0.405-2.062) and tertiary/higher (CI: 0.310-2.678) education were 0.91 times as likely to perpetrate IPV compared to those with primary or no education. However, none of the education level categories was significantly associated with male IPV perpetration. Compared to low skilled men, semi-skilled (OR: 1.32; CI: 0.665-2.621) and skilled (OR: 1.24; CI: 0.530-2.880) men had higher odds of perpetrating IPV.

Binary logistic regression of the association between proximate variables with male IPV perpetration

Table 4.3 shows the odds ratios of the binary logistic regression of the association between couple characteristics and behavioural factors and male IPV perpetration. None of the categories under relationship/couple characteristics and behavioural factors was significantly associated with male IPV perpetration in this model. Men who had multiple sexual partners were 1.3 times more likely to perpetrate IPV compared to those who had one sexual partner. Similar to the unadjusted model, men who were undecided about having more children were less likely to perpetrate IPV than those who wanted to have more children (OR: 0.77; CI: 0.274-2.185). Unlike in the unadjusted model, men who want no more children had higher odds of perpetrating IPV compared to those who want to have more children (OR: 105; CI: 0.606-1.815).

In terms of decision-making autonomy, men that jointly make decisions with their partners about the use of their earnings are 0.56 times as likely to perpetrate IPV as men who make decisions alone (CI: 0.293-1.064). Unlike in the unadjusted model, this category is no longer a significant predictor male IPV perpetration in this model. Men who do not have control over their earnings had also lower odds of IPV perpetration in relation to those who have full control over their earnings or make decisions alone (OR: 0.49: CI: 0.147-1.640). Lastly, men who had attitudes towards wife-beating were more likely to perpetrate IPV than men with no attitudes (OR: 1.07; CI: 0.286-4.008). The results are almost similar to the unadjusted model.

Adjusted Odds Ratios for the binary Logistic regression of the association between all the independent variables with male IPV perpetration (full model)

Table 4.3 shows results from an adjusted binary regression of male IPV perpetration by all independent variables. The adjusted binary regression model shows that age, age at first cohabitation, age of wife/partner and region were statistically significant. Place of residence and decision-making autonomy are no longer significant in the adjusted model.

Unlike in the unadjusted model, age is now significantly associated with male IPV perpetration. One unit increase in the age of men is associated with 0.89 (CI: 0.824-0.952) decrease in the odds of perpetrating male IPV. The odds of male IPV perpetration seems to decrease as men get older. These findings are consistent with a study done by Shorey et al. (2019) which showed that older people have more relationship experience and maturity in resolving intimate partner conflicts and this reduces the likelihood of IPV. Whilst young men lack maturity in resolving intimate partner conflicts/differences, there are high chances of IPV perpetration among young males. Age is protective against male IPV perpetration in adulthood. One unit increase in age at first cohabitation is significantly associated with 1.07 (p. <0.05) CI: 1.012-1.113) increase in the odds of male IPV perpetration given that all the other variables in the model are held constant. The odds of perpetrating violence are higher among men who started cohabiting at a young age. Adjusted binary logistic regression shows that one unit increase in age of wife/partner is significantly associated with about 12% increase in the odds of male IPV perpetration (p. < 0.05 CI: 1.044-1.197). This positive relationship shows that the probability of male IPV perpetration increases as the age of wife/partner also increase. Age of wife/partner is a risk factor for male IPV perpetration.

White males have lower odds of perpetrating IPV (RC: 0.93; CI: 0.266-2.750) compared to Black males. Similarly, Coloured males are less likely to perpetrate IPV than Black males (OR: 0.91; CI: 0.257-2.144). Lastly, in terms of race, Indian/Asian males are far less likely to be perpetrators of IPV in relation to Black males (OR: 0.32; CI: 0.031-3.040). However, none of the race categories was statistically significant in the adjusted model as well as other models.

In terms of region, Free State and North West remained statistically significant in the adjusted model (p. <0.05). Males from the Northern Cape (OR: 0.18; CI: 0.042-0.753), Free State (OR: 0.07; CI: 0.007-0.543) and North West (OR: 0.09 CI: 0.014-0.472) were significantly less likely

to perpetrate IPV compare to those from Western Cape. Unlike in the unadjusted model, Northern Cape category is now statistically significant. Moreover, the odds of perpetrating IPV decreased by a factor of 0.43 (p> 0.05; CI: 0.112-1.680) among males in Eastern Cape in relation to those in Western Cape. Interestingly, males from Kwazulu-Natal now have lower odds of perpetrating IPV than males from Western Cape (OR: 0.52; p> 0.05; CI: 0.142-2.060). Odds of perpetrating IPV are relatively lower among males in Limpopo compared to those in the Western Cape (OR: 0.73; CI: 0.177-2.830). Males living in Mpumalanga had lower odds of perpetrating IPV than those living in the Western Cape (OR: 0.28; CI: 0.068-1.061). Just like the unadjusted model, the odds of perpetrating violence remained lower (OR: 0.94; CI: 0.281-2.853) among males in Gauteng in relation to those in the Western Cape.

In terms of place of residence, the odds remained high among males in rural areas of perpetrating IPV compared to those in urban areas (OR: 2.09; CI: 0.946-3.667). Unlike in the unadjusted model, the place of residence is no longer a significant predictor of male IPV perpetration (p.> 0.05). Interestingly (although not statistically significant), employed males have higher (almost double) odds of perpetrating IPV than males who are not employed (OR: 1.81; p.>0.05; CI: 0.471-4.339). The odds of perpetrating IPV increased (OR: 1.01) among males who have secondary education in relation to males who have primary/no education (CI: 0.426-2.276). The odds of perpetrating IPV were now lower among males with tertiary/higher compared to those with primary/no education (OR: 0.91; CI: 0.295-2.220). However, just like in the unadjusted model, the adjusted odds ratios indicate that education level categories are not significantly associated with male IPV perpetration.

The adjusted ratios, (like the unadjusted ratios) showed no significant association between type of employment categories and male IPV perpetration in South Africa. Table 4.3 illustrates that both semi-skilled (OR: 1.34; CI: 0.655-6.254) and skilled workers (OR: 1.30; CI: 0.541-7.782) have higher odds of perpetrating IPV than low skilled workers. As expected, males who have multiple sexual partners have higher odds of perpetrating violence than those who have one sexual partner (OR: 1.44; CI: 0.520-4.136). Both the unadjusted and adjusted results proved no significant association between the number of sexual partners and male IPV perpetration in South Africa.

Fertility preference remained insignificantly associated with male IPV perpetration in the adjusted model. The odds of perpetrating IPV were lower among men who were undecided about having more children in relation to those who want to have another child (OR: 0.58; CI: 0.165-2.302). The adjusted model revealed that men that do not want any more children were 1.02 times more likely to perpetrate IPV compared to men who want to have another (CI: 0.507-2.022).

Results from the adjusted model showed that men who jointly make decisions with their partners about spending their earnings were less likely to perpetrate IPV compare to men who make decisions alone (OR:0.64; CI: 0.301-1.215). Unlike in the unadjusted model, this category is no longer significantly associated with male IPV perpetration. In comparison to men who make decisions alone, men who do not have control over their earnings were 0.64 times as likely to perpetrate IPV (CI: 0.162-2.010). In terms of attitudes towards wife-beating, men that had attitudes towards wife-beating were more likely to perpetrate IPV compared to those that did not have attitudes (OR: 1.11; CI: 0.243-4.618). Although not statistically significant, the odds of perpetrating IPV remained high in both the unadjusted and adjusted models.

Table 4.3: Odds Ratios for the binary Logistic regression of the association between the independent variables with male IPV perpetration

Independent variables	**Unadjusted Odds Ratios**				**Sociodemographic factors**				**Couple and behavioural factors**				**Adjusted odds ratios (full model)**			
	UOR	***P-value***	***CI***		***OR***	***P-value***	***CI***		***OR***	***P-value***	***CI***		***AOR***	***P-value***	***CI***	***CI***
Age	1.00	0.94	0.977	1.025	0.89	0.00*	0.825	1.002					0.89	0.00*	0.824	0.975
Age at first cohabitation	1.01	0.46	0.982	1.041	1.06	0.03*	1.006	1.073					1.07	0.02*	1.012	1.113
Age of wife/partner	1.01	0.31	0.988	1.039	1.12	0.00*	1.043	1.116					1.12	0.00*	1.045	1.180
Race (RC: Black)																
White	1.12	0.81	0.449	2.803	0.87	0.82	0.260	2.692					0.93	0.91	0.266	2.750
Coloured	0.65	0.28	0.301	1.412	0.96	0.95	0.282	1.909					0.91	0.89	0.257	2.144
Indian/Asian	0.46	0.46	0.058	3.604	0.30	0.30	0.030	2.071					0.32	0.34	0.031	3.040
Region (RC: Western Cape)																
Eastern Cape	1.07	0.89	0.421	2.693	0.50	0.30	0.138	2.098					0.43	0.22	0.112	1.680
Northern Cape	0.42	0.13	0.136	1.296	0.17	0.02*	0.040	0.989					0.18	0.03*	0.042	0.753
Free State	0.24	0.04*	0.064	0.922	0.09	0.04*	0.010	0.658					0.07	0.02*	0.007	0.543
Kwazulu-Natal	1.60	0.27	0.691	3.692	0.73	0.64	0.203	3.254					0.56	0.40	0.142	2.060
North-West	0.20	0.02*	0.053	0.753	0.16	0.03*	0.031	0.576					0.09	0.01*	0.014	0.472
Gauteng	0.98	0.97	0.416	2.323	1.04	0.95	0.319	1.939					0.94	0.92	0.281	2.853
Mpumalanga	0.60	0.27	0.241	1.481	0.33	0.11	0.085	1.240					0.28	0.08	0.068	1.061
Limpopo	2.06	0.10	0.882	4.833	0.91	0.89	0.229	4.095					0.73	0.67	0.177	2.830
Place of residence (RC: Urban)																
Rural	1.54	0.05*	0.993	2.384	1.80	0.13	0.842	2.476					2.09	0.07	0.946	3.667
Employment status (RC: Unemployed)																
Employed	1.04	0.88	0.640	1.684	1.93	0.33	0.519	1.667					1.81	0.39	0.471	4.339

Education level (RC: Primary)																
Secondary	1.06	0.83	0.619	1.820	0.91	0.83	0.405	1.923					1.01	0.98	0.426	2.276
Tertiary/Higher	1.29	0.49	0.631	2.629	0.91	0.87	0.310	2.263					0.91	0.87	0.295	2.220
Type of employment (RC: low skilled)																
Semi-skilled	1.22	0.53	0.657	2.255	1.32	0.43	0.665	2.815					1.34	0.43	0.655	6.254
Skilled	1.19	0.62	0.606	2.326	1.24	0.62	0.530	3.538					1.30	0.56	0.541	7.782
Number of sexual partners (RC: One sexual partner)																
Multiple sexual partners	1.47	0.26	0.747	2.273					1.34	0.47	0.606	2.980	1.44	0.48	0.520	4.136
Fertility Preference (RC: Want to have another)																
Undecided	0.56	0.25	0.205	1.508					0.77	0.63	0.274	2.185	0.58	0.40	0.165	2.302
Want no more	0.98	0.94	0.610	1.583					1.05	0.87	0.606	1.815	1.02	0.95	0.507	2.022
Decision-making autonomy (RC: Respondent alone)																
Respondent and wife/partner	0.52	0.04*	0.277	0.963					0.56	0.08	0.293	1.064	0.64	0.24	0.301	1.215
Wife/partner alone	0.43	0.16	0.131	1.399					0.49	0.25	0.147	1.640	0.64	0.52	0.162	2.010
Attitudes towards wife-beating (RC: No)																
Yes	1.26	0.69	0.414	3.821					1.07	0.92	0.286	4.008	1.11	0.90	0.243	4.618

RC: Reference Category *significant 5% CI: Confidence interval OR: Odds Ratio AOR: Adjusted Odds Ratio AOR: unadjusted Odds Ratio

CHAPTER FIVE: DISCUSSION

5.1 Introduction

This study has examined the association between sociodemographic and behavioural factors and physical IPV perpetration among men in South Africa. Several studies on the link between male IPV perpetration and various sociodemographic and behavioural factors were reviewed. The following chapter will also discuss the findings of the study in connection with the existing body of literature, the theoretical framework and the objectives of the study.

5.2 Levels of male IPV perpetration

The first objective was to examine the levels of physical IPV perpetration in South Africa. The findings revealed that male IPV perpetration is 19% in South Africa. The levels of male IPV perpetration obtained were higher than those found in other studies conducted in some parts of Africa which used primary data. For instance, a study in Tanzania found that about 13% of males reported perpetrating physical IPV (Maman et al., 2010). The analysis showed that reports of male IPV perpetration were high in Limpopo (36%), Kwa-Zulu Natal (25%), Western Cape (19%) and Eastern Cape (17%) respectively. These provinces are largely rural and according to previous studies, men from rural environments are more likely to perpetrate physical IPV than those from urban environments (Dunkle et al., 2016; Jewkes et al., 2006). A study done by the Human Sciences Research Council (HSRC) found that Eastern Cape, Limpopo and KwaZulu-Natal are the most poverty-stricken provinces in South Africa (Moletsane et al., 2015). The discrepancy between the national and provincial male IPV perpetration rates is due to variations in socio-structural factors that increase the risk of violence between provinces. Poor provinces remain trapped in structural poverty that negatively affects socio-economic profile. According to the structural theory of violence, structural poverty, which is linked to stress, put men at risk of physical IPV perpetration (McCue, 2018). Unlike rural provinces, most campaigns and programmes to prevent violence against women are implemented in provinces that are largely urban (Lombard & McMillan, 2013).

Most studies that found higher levels of male IPV perpetration in South Africa only looked at sub-populations of men, such as specific age groups. For instance, a population-based study that

was done in Western Cape, South Africa discovered that the prevalence of male perpetration of IPV was 42% (Pöllänen et al., 2018). This study was based on males dating women aged 13–23 years reported perpetrating physical dating violence. Previous studies show evidence that male physical IPV perpetration is alarmingly high among young adolescents in South Africa (Machisa, Christofides, & Jewkes, 2016; Teitelman et al., 2017).

Most studies on male IPV perpetration only focused on selected areas and they did not examine male IPV perpetration on a national scale. Furthermore, the reason for lower perpetration rates in South Africa might also be due to the fact that this study is based on self-reported physical IPV perpetration whilst other studies are based on the reports from victims (Kaminska & Foulsham, 2013). The traditional culture in South Africa instils beliefs among males that hitting their partners as a form of discipline is not violence and this might lead to under-reporting of IPV perpetration (Makayoto et al., 2013). Lower perpetration rates might be explained by the fact that men in our sample were largely married. Previous studies have found that married men are less likely to perpetrate violence against their partners than unmarried men. According to Wong et al. (2016), unmarried men are more violent towards their partners than married men. Researchers have also theorised that the presence of marital norms, a higher stake in conformity and greater investment in the relationship among married couples contributes to lower levels of IPV in marriages (Kenney & McLanahan, 2016).

5.3 Sociodemographic and behavioural determinants of male IPV perpetration

The second objective was to examine the association between sociodemographic and behavioural factors and physical IPV perpetration among males in South Africa. Previous studies show links between sociodemographic and behavioural factors and male IPV perpetration. In the current study, thirteen variables were used to measure physical IPV perpetration. These variables include the age of the participant, age of wife/partner, age at first cohabitation, region, employment status, type of employment, number of sexual partners, race, education level, place of residence, fertility preference, decision making autonomy and attitudes towards wife-beating.

Age is one of the factors that is significantly associated with male IPV perpetration. Previous studies show that older men are less likely to perpetrate physical violence than young men (Fortin et al., 2012; Shorey et al., 2019; Teitelman et al., 2017; WHO, 2017). This supports the

findings of this study that shows that young men are at risk of perpetrating physical IPV than older men. This might be because older men have relationship experience and maturity in resolving partner conflicts. Whilst young men lack maturity in resolving intimate partner conflicts/differences there are high chances of IPV perpetration among young males (Shorey et al., 2019). Another reason for high perpetration among young men is that they are less likely to seek help than older adults, especially when they exhibit symptoms of depression (Fortin et al., 2012).

Age of wife/partner was found to be a risk factor that is associated with male IPV perpetration. The findings of this study showed that as age of partner increases, the likelihood of male IPV perpetration also increases. This is consistent with a study done by Dardis et al. (2015) which found that men who are in a romantic relationship with older women are likely to perpetrate physical violence because older women are more likely to tolerate partner violence compared to younger women. The traditional South African society is patriarchal, with gender roles (social norms about the proper roles and responsibilities of men and women) - being skewed to justify violence against women who are assigned an inferior role to men. Majority of older women subscribes to the traditional gender roles which are risk factors for IPV perpetration (Antai, 2011). However, some studies argue that men with younger partners have a higher chance of perpetrating physical IPV because they are likely to be controlling and abusive towards their partners (Dunkle et al., 2016; Gupta et al., 2008; Townsend et al., 2011; VanderEnde et al., 2016). Several studies done in South Africa shows that the rates of physical IPV experienced by females are high among adolescent and young adult women (Dunkle et al., 2016; Jewkes et al., 2006).

Findings of this study shows that age at first cohabitation is a risk factor for male IPV perpetration. Men who started cohabiting at an older age are more likely to perpetrate physical IPV than those who started at a young age. This is surprising as it is expected that older men are matured and are less likely to perpetrate physical IPV. However, according to Wong et al. (2016) cohabitation is more acceptable among young people than among the elderly. This may result in a lack of support and fewer resources being available if IPV occurs among older men. Cohabitation at old age enjoys less support from family members and likely experiences poor relationship quality (Brown et al., 2017). Lack of support may contribute to higher levels of

depressive symptoms among cohabitors and according to Machisa et al. (2016), depression increases the risk for physical IPV perpetration among males. Besides, the majority of cohabiting relationships among older men are post-marital cohabitation (Vaeth et al., 2010). Men that are from failed marriages are more likely to perpetrate IPV due to greater psychological distress. There is limited research that specifically focused on age differences among cohabiting men and associated physical IPV risks. However, numerous studies that have examined physical IPV among married and cohabiting men found that young men are more likely to cohabit and also are at risk of perpetrating physical IPV (Wong et al., 2016).

The unadjusted odds ratios show that men from rural areas were significantly more likely to perpetrate physical IPV in relation to those who live in urban areas. The bivariate analysis also shows high male IPV perpetration among rural men compared men in urban areas. This is consistent with a multi-country study done by WHO (2012) which found that living in rural settings increases the risks of perpetrating partner violence. This is because most rural settings have lower education, limited access to resources and high unemployment (McCue, 2018; Reed et al., 2010). These factors have been found to be associated with male IPV perpetration (Reed et al., 2010). In addition, the unadjusted odds ratios indicated that men in Limpopo, KwaZulu-Natal and Eastern Cape were more likely to perpetrate IPV than men from any other region. These provinces are largely rural. High physical IPV perpetration in rural areas is because of the dominance of traditional gender roles that promote partner violence compared to urban environments where traditional practices are limited (Antai, 2011). This may reduce male IPV perpetration in urban areas.

Findings of this study revealed that there is a significant relationship between men's decision-making autonomy and physical IPV perpetration. Men that jointly make decisions with their partners about the use of their earnings were significantly less likely to perpetrate physical IPV than men who make decisions alone. According to Shamu et al. (2018), men that do not involve their wives/partners in the household decision-making process are more likely to perpetrate physical IPV. It is argued that most men that do not involve their partners in household decision-making believe in inequitable gender norms that perpetuate the expression of toxic hyper masculinities and male dominance over female partners (Shamu et al., 2018).

Toxic masculinities and male domination lead men to accept and justify physical IPV. Most studies have found that attitudes towards wife-beating are a significant predictor of male IPV perpetration (Hindin, 2003; Shamu et al., 2018; Speizer, 2010). However, the results of this study revealed that attitudes towards wife/partner beating is not a significant predictor of male IPV perpetration.

The current study proved that socioeconomic factors like education level, type of employment and employment status are not significantly associated with male IPV perpetration. Contrary to these findings, previous studies have found that education and employment status is associated with male IPV perpetration in Southern Africa (Bonnes, 2016). Insignificant findings on the association between these socioeconomic factors might be due to power differences between intimate partners. Power differences and imbalances affect the association between men's socioeconomic status and physical IPV perpetration.

A lot of Southern African studies documented that there is a strong relationship between number of sexual partners and physical IPV perpetration among males (Abrahams et al., 2004, 2006; Dunkle et al., 2016; Jewkes et al., 2006; Simbayi et al., 2006). Contrary to these findings, the current study did not find an association between the number of sexual partners and male IPV perpetration. The inconsistency in findings might be due to how multiple sexual partnerships were quantified: more than one sexual partner in the current study compared to; having more than three sexual partners in the previous year (Jewkes et al., 2006), more than one sexual partner among working-class urban men (Abrahams et al., 2006), and having casual sex among young rural men (Dunkle et al., 2016). While it is unexplainable as to why previous studies used different quantification of sexual partner numbers, future studies should strive to be more consistent with the quantification of sexual partners.

The findings of this study proved that there is no association between fertility preference and male IPV perpetration in South Africa. A study that was done by Forrest et al. (2018) on IPV and contraceptive use found that there is no significant relationship between fertility preference and male IPV perpetration. Other literature has shown that men that want to have more children are likely to perpetrate physical violence if the wife/partner is on contraceptives (Moore et al., 2010). This might explain the insignificant results of the relationship between fertility preference and male IPV perpetration.

5.4 Applicability of the findings to the theoretical framework

This study was guided by the social-structural theory of violence and social learning theory. To demonstrate the dimension of the social-cultural theory of violence, variables such as education, region, employment status, type of employment, race and place of residence were used. Social-structural theory of violence gives more prominence to the demographic and socioeconomic factors as causes of male IPV perpetration (Reed et al., 2010). The social-structural theory holds the assumption that less-educated, lower-income, lower occupational status men are more likely to experience both structural and situational stress. These factors will put men at risk of perpetrating physical IPV. The theory further explains that men from rural areas/environments are more likely to perpetrate physical IPV because a large proportion is poor, unemployed and have low education. The results of this study are consistent with the assumptions of the theory, that men from rural areas and/ low-income areas are more likely to perpetrate physical IPV. The social-cultural theory posits that these men have inadequate resources to cope with the normative demands and as a result, they become violent towards their partners because of the stress (McCue, 2018). This study has demonstrated that high male perpetration is associated with place of residence and region. Men from rural areas and poor provinces (measured in the gross regional domestic product (GDP)) were significantly at risk of perpetrating IPV.

5.5 Discussion of Research Hypothesis

The current study hypothesised that an association between sociodemographic and behavioural factors and male IPV perpetration in South Africa. This assumption is based on both the theoretical framework and past literature that sociodemographic and behaviours of men as associated with physical IPV perpetration. Findings from this study were consistent with the hypothesis that age, age at first cohabitation, age of wife/partner, place of residence, region and decision-making autonomy were significantly associated with male perpetration. Given that the p-value of these variables was less than 0.05, this study rejects the null hypothesis and concludes that there is a significant association between sociodemographic and behavioural factors and male IPV perpetration in South Africa.

5.6 Strengths of the study

The SADHS 2016 used in this study is a nationally representative survey with a large sample size. The national coverage, standard collection procedures and high participation rates of the

SADHS ensure reliability and accurate estimates of the outcomes being measured (Corsi et al., 2012). The dataset used enabled deeper analysis of the data which include determining the male IPV prevalence and examining the association between sociodemographic and behavioural factors and physical IPV perpetration among men in South Africa.

This study is the only one that examined male IPV perpetration on a national level in South Africa. Several studies have examined male IPV perpetration in selected areas and used sub-populations of men. Measuring male IPV perpetration at a national level allows one to identify factors associated with physical IPV perpetration among males from all the provinces in South Africa. The findings of this study will help in developing initiatives to engage men and boys in physical violence prevention, as well as other community-based programmes that aim to reduce physical IPV perpetration and its risk factors. Thus, the study of factors associated with male IPV perpetration is essential to promote: (i) the development of comprehensive aetiological models of physical IPV; (ii) improvement of physical IPV risk assessment methods; (iii) reduce victim-blaming; and (iv) development of empirically supported intervention and treatment programs for perpetrators of physical IPV (Birkley & Eckhardt, 2015). According to Birkley and Eckhardt (2015), risk factors for physical IPV perpetration is of high significance when trying to deal with IPV because focusing on victims only does not curb the problem.

It is well documented that South Africa has one of the highest gender-based violence rates in the world (Fleischack et al., 2019; Gordon, 2016). Physical partner violence perpetrated by men is a shocking reality for many South African women and a serious issue. Thus, this study represents a significant contribution to the fight against IPV and GBV in South Africa. As stated in the previous sections of this report, the findings about the prevalence of the physical IPV perpetration are alarming and cannot be ignored. The study is also helpful in identifying sociodemographic and behavioural factors associated with male IPV perpetration in South Africa.

5.7 Limitations of the study

Despite the study having presented the association between sociodemographic and behavioural factors and male IPV perpetration, it is not without limitations. As a result of the data being cross-sectional, one cannot infer causality. This study is limited to measuring association and not a causal effect. A causal relationship between sociodemographic and behavioural factors and

male IPV perpetration cannot be determined using binary logistic regression (Menard, 2010). Moreover, the study only focused on one form of IPV; physical violence, without considering other forms of violence.

Also, it could be possible that IPV perpetration was underreported in this study, thereby hindering the establishment of its association with sociodemographic and behavioural factors among men in South Africa. Underreporting of male IPV perpetration might be due to social desirability bias where males are not willing to confessing their physical IPV perpetration since it is not acceptable behaviour in South Africa. Underreporting or participant bias has implications for data accuracy. Social desirability affects surveys since respondents might respond in a socially acceptable manner instead of being authentic (Kaminska & Foulsham, 2013). The under reports of IPV perpetration in this study could have been because of the traditional culture in South Africa which instils beliefs among males that hitting their partners as a form of discipline is not violence (Makayoto et al., 2013). According to Jaeger et al. (2008) men appear unwilling to disclose information about current IPV perpetration in a face-to-face interaction with the data collector. They may be willing to provide more information if approaches other than face-to-face screenings are employed. Data from Rhodes et al. (2002) suggest that one of these other types of approaches may be computer-based screening.

On another note, this study relied on male data only to measure physical IPV and this could result in some form of bias because only the views of males were captured without considering those of the female partners. It could happen that the males might not have been honest enough to share their true enactment of physical IPV. Another limitation is that this study did not measure partner differences which might have contributed to male IPV perpetration. Measuring partner differences was going to shift the focus of the study.

CHAPTER SIX: CONCLUSION AND RECOMMENDATIONS

6.1 Introduction

The chapter provides a summary of the key findings and conclusions of the study. Furthermore, this section outlined the study's implications and recommendations for both research and policy.

6.2 Conclusion

The study examined the association between sociodemographic and behavioural factors of physical IPV perpetration among males in South Africa. The findings of this study indicated that some sociodemographic and behavioural factors are associated with male IPV perpetration. Results show that age of males is a protective factor of physical IPV perpetration. These findings are synonymous with other studies in sub-Saharan Africa, Latin America and Asia. Previous studies documented that unlike older men, young men are more likely to perpetrate physical IPV due to lake of relationship experience and maturity in resolving intimate partner violence.

Age at first cohabitation and age of wife/partner were risk factors for male IPV perpetration. No literature has been found on the association between age at first cohabitation and male IPV perpetration. The age of wife/partner was significantly associated with male IPV perpetration. The probability of perpetrating physical IPV was high among males who have older partners/wives. This is different from what other studies have found. Several studies have proven that the odds of male IPV perpetration are high among men who are in a relationship or union with younger females. However, based on the results of this study it can be argued older women in South Africa tolerate partner violence than young women. Older women are highly involved in cultural practices that promote partner violence. Besides, men are likely to use physical violence on their partners when there is a conflict if they feel like their partners are undermining them because of their age.

Men living in impoverished, rural communities are at greater risk for physical IPV perpetration. This study proved that the place of residence is significantly associated with male IPV perpetration in South Africa. Male IPV perpetration was found to be high among men living in rural areas. Although it was not directly measured in this study, potential mechanisms that place men in rural areas at increased risk for physical IPV perpetration need to be considered. These mechanisms include social-cultural norms that are practised in the rural of South Africa that

promotes the use of violence as acceptable behaviour in intimate relationships. Also, rural and impoverished communities do not have access to resources put towards IPV prevention and intervention efforts. These findings imply that rural settings expose men to factors and experiences that place them at risk of perpetrating physical IPV compared to urban settings. Similarly, the study also showed that men from largely rural provinces (Eastern Cape, KwaZulu-Natal and Limpopo) were significantly at high risk of perpetrating violence compared to largely urban provinces. Also, Eastern Cape, KwaZulu-Natal and Limpopo are the poorest provinces in South Africa. As supported by other studies, men living in poor societies have inadequate resources to cope with the normative demands and as a result, they become physically violent towards their partners because of the stress. Community-level poverty increase stress among men, and this increase the risk for physical IPV perpetration. Similarly, the findings are in support of some existing studies which state that there are protective factors that prevent physical IPV perpetration in urban environments. Unlike poor provinces, most campaigns and programmes to prevent violence against women are implemented in rich provinces (largely urban) in South Africa.

Men's decision-making autonomy was found to be significantly associated with physical IPV perpetration. Men that jointly make household decisions with their partners are less likely to perpetrate physical IPV that those who make decisions alone. The findings of this study indicate that joint decision-making among intimate partners reduces the likelihood of male IPV perpetration. Men's perception of their wife/partner's participation in decision-making might be influenced by their beliefs of masculinity and views on household gender roles. This study demonstrates that men's views on gender roles should be included in program design and evaluation to give a more holistic picture of male IPV perpetration protective factors.

This study contributes to the body of knowledge since studies in South Africa have limitedly focused on the association between physical IPV and characteristics of victims. Also, no study has measured male IPV perpetration using a sample that is nationally representative in South Africa. Most studies have focused on male IPV perpetration in selected rural areas or provinces. Such limited research in this field has, in turn, created gaps in knowledge. This study filled in the knowledge gaps by highlighting that sociodemographic and behavioural factors of males are important to consider when one wants to reduce male IPV perpetration in South Africa.

6.3 Recommendations

Research recommendations

1. To address the issue of causality and gain a better understanding of male IPV perpetration, the researcher recommends the use of data collected longitudinally at different points in time. Also, a mixed-method study can be done that will be inclusive of qualitative and quantitative research approaches. The qualitative research approach will be able to establish the male's experiences on what might be the reasons why they are enacting violence against their intimate partners. Qualitative methodology enables the gathering of reasons behind their perpetration of IPV. This will involve identifying what males believe are the reasons for IPV perpetration and share their stories on how they enacted violence taking note of any nonverbal cues they use while being interviewed. The narratives from the participants will provide rich information on the events leading to the perpetration of IPV and this will provide meaningful answers on the cause of male IPV perpetration.

2. The findings of this study are based on self-reports from males and there might be underreporting. Further research studies need to match both reports by victims and perpetrators. It will be important to examine the percentage of men who did not report perpetrating violence whilst their partners reported that they enacted violence against them.

3. Findings of this study show that age of the wife/partner is significantly associated with male IPV perpetration. However, this research did not go further to measure the age differences between the participants and their partners. There is a need to measure differences between partners to understand the relationship between partner asymmetries and male IPV perpetration. This might explain whether male IPV perpetration is due to the differences that partners have.

4. Future research needs to look at exposure to family and/ community violence during childhood. The history of South Africa is marked by high levels of violence and this might explain male IPV perpetration rates in contemporary South Africa. History of

childhood sexual/physical/emotional abuse of men also need to be considered in future studies.

5. The findings of this study show that the age of men is a protective factor IPV perpetration whilst age of wife or partner is a risk factor. There is a need to explore this further to understand the couple dynamics.

Policy recommendations

1. The SDG 3 calls for the improvement of mental health and wellbeing of all persons by 2030, including in South Africa. Physical IPV perpetrated by men has been found to be associated with negative physical and mental health problems for survivors. Victims of physical IPV has been found to be experiencing acute and chronic physical health problems. Addressing IPV perpetration which has a major implication on the health of victims will contribute towards achieving this goal. To achieve this goal, it is recommended that government programs should consider full capacity participation by males in the programs aimed at reducing violence against women and providing education which seeks to restructure the sociocultural factors which promote physical IPV.

2. The policies and programs aimed at reducing IPV in South Africa should not only focus on the victims. It is recommended that prevention programs should also include education of both males and females on constructive ways to deal with partner conflicts. The education should also touch on the social ills of the patriarchal society which promote hegemonic masculinity, a risk factor for male IPV perpetration. The results of this study show that the odds of perpetrating physical violence are high among men in rural areas and provinces that are largely rural. Rural areas are largely patriarchal, men grow up with a mentality that male dominates females and females need to be controlled. Introducing programmes especially in rural areas, aimed at educating the males at a tender age on how females are equal to males could be imperative to do away with males' negative mentality and this can contribute to the reduction of male IPV perpetration. This is important because efforts of reducing IPV can be fruitless due to the societal structures.

3. The South African government need to incorporate programmes to address gender-based violence in the curriculum of learners from basic to higher education institutions so that the message of condemning violence is well understood. The programmes should target rural areas and poor provinces where there are high levels of violence addressing both male and females on the physical and mental health consequences associated with violence against women. Campaigns calling for an end to violence and promoting healthy nonviolent relationships should be done at the community and national level. Media advertisements can be done to signal socially acceptable ways of dealing with partner violence. Television, radio, newspaper and social media platforms should be used to influence gender norms, community responses and individual attitudes to IPV. This will help in behavioural change modification in. Community education and mass media strategies are very effective in addressing male perpetrated IPV, targeting rural areas and provinces with high male IPV perpetration.

4. This study found that old age is an important protective factor of male IPV perpetration. It might be that young men do not have conflict management skills, which are learnt in time thereby resulting in lower perpetration rates as they age. Programmes interventions should target young men to teach them IPV prevention and conflict management skills. Working with young men and boys is important when addressing male IPV perpetration.

5. Non-involvement of female partners in household decision making was significantly associated with increased male IPV perpetration. These men are more likely to be abusive especially if the partners are economically dependent on them. To reduce male IPV perpetration, the media need to be used positively to change men's attitudes about women's participation in household decision making. The media should challenge social stigma and change the culture that promotes silencing female partners when it comes to household decision making.

6. The results of this study show that the age of wife/partner is a risk factor male IPV perpetration. This is consistent with findings from other studies which found that the frequency of male perpetrated IPV increase as their female partners' transit into older ages. It could be that older women tolerate IPV than young women. Old women still strongly believe traditional gender norms that put women in a subordinate and passive position. Intervention studies and programmes should, therefore, ensure de-socialisation of patriarchal practices among old couples to prevent and transform attitudes that old people still believe in.

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APPENDIX

Appendix 1: Literature review matrix

S/N	Title & Source	Author(s) & year	Data Source	Method	Level of analysis	Findings	Missing gaps
1	'I had a Hard Life' Exploring Childhood Adversity in the Shaping of Masculinities among Men Who Killed an Intimate Partner in South Africa	Shanaaz Mathews Rachel Jewkes Naeemah Abrahams (2011)	Primary data collection from 20 men who were incarcerated for such murders and draws on 74 in-depth interviews with these men, family and friends.	in-depth interviews	Murders and their families and friends	This study found that traumatic childhood experiences increases emotional vulnerability, resulting in their feeling unloved, insecure and powerless. We argue that they adopt violent forms of masculinities to achieve respect and power. Yet, there is no linear relationship between traumatic childhood experiences and adopting violent masculinities.	This paper is inherent in the analysis of only the childhoods of these men, as there are other factors within their environment as well as in early adulthood that further influence the shaping of masculinities. A further limitation to the study is that the interviews were conducted with incarcerated men who had time to reflect on the meaning of relationships. Furthermore, some had been through counselling, which allowed them to make meaning of some of the events in their lives. Thus, the prison experience, as well as the interview process, might have influenced how men represented their childhoods.
2	"The Only Solution There Is To Fight" Discourses of Masculinity Among South African Domestically Violent Men	Taryn J van Niekerk Floretta A Boonzaier (2014)	Primary data collection from 2 men who were recruited from three programs.	discourse analysis of interviews	Individuals	A discourse analysis of interviews revealed that men drew upon various dominant discourses of masculinity that may reinforce the subordination of, control over, and violence against women.	Future research might should evaluate the impact of a court-mandated intervention program on court-referred men. International literature has indicated mixed results for the effectiveness of court-mandated perpetrator programs
3	A cluster randomised controlled trial to determine the effect of community	Nicola J Christofides Abigail M Hatcher	Primary data collection among 2600 men aged between 18 and 40 years.	The main analysis was intention-to-treat based on the randomisation	Individuals	The final trial dataset will be made accessible to trial investigators for a period of 5 years. During this time, scholarly dissemination will take place through peer-reviewed journals and community dissemination will occur	Interventions that address the response to VAW have shown impact on physical and mental health outcomes for women, but there is limited evidence that these interventions reduce violence.

	mobilisation and advocacy on men's use of violence in periurban South Africa: study protocol	Angelica Pino Dumisani Rebombo Ruari Santiago McBride Althea Anderson Dean Peacock (2018)		of clusters. A qualitative process evaluation was being conducted alongside the cluster randomised controlled trial (C-RCT).		through a series of workshops with key community stakeholders and members of the network of non-governmental organisations working in the area to address violence against women (VAW) and children. After 5 years, the trial dataset will be made available to other researchers through an online portal managed by the What Works to Prevent Violence programme.	
4	A dyadic analysis of partner violence and adult attachment	Johannah Sommer Julia Babcock Carla Sharp (2017)	Primary data collection. Couples (N = 214) were recruited from the community through local newspaper advertisements and flyers stating "Couples experiencing conflict needed to participate in a research study."	The study examined three forms of IPV as a function of both partners' adult attachment characteristics in order to better understand the maintenance of relationship violence by using a dyadic statistical design.	couples	Results suggest that one's own attachment avoidance and a partner's attachment avoidance and anxiety was associated with perpetration of physical assault.	The sample under investigation was limited to distressed violent and nonviolent couples that elected to participate in a research project. It is unclear how these results would generalize to shelter samples or court-ordered offenders.
5	A global perspective on child sexual abuse: meta-analysis of prevalence around the world	Marije Stoltenborgh Marinus H Van Ijzendoorn Eveline M Euser Marian J Bakermans-Kranenburg (2011)	Secondary data from childhood sexual abuse (CSA) reported in 217 publications published between 1980 and 2008, including 331 independent samples with 9911748	Meta-Analysis of Prevalence Around the World	217 publications	The overall estimated CSA prevalence was 127/1000 in self-report studies and 4/1000 in informant studies. Self-reported CSA was more common among female (180/1000) than among male participants (76/1000). Lowest rates for both girls (113/1000) and boys (41/1000) were found in Asia, and highest rates were found for girls in Australia (215/1000) and for boys in Africa (193/1000). The results of our meta-analysis confirm that CSA is a global problem of considerable extent,	The heterogeneity in the subsets of studies, despite the moderators that were taken into account, indicates that the sample characteristics and methodological factors included in this meta-analysis did not yet fully explain the vast variation in self-reported rates of CSA.

			participants.			but also show that methodological issues drastically influence the self-reported prevalence of CSA.	
6	A review of cognitive factors in the etiology of rape: Theories, empirical studies, and implications	Klaus Drieschner Alfred Lange (1999)	Secondary data: a review of previous studies.	A review of studies on the etiology of rape focusing on cognitive variables.	Previous literature	The studies reviewed in the present article provide evidence that men with a high proclivity to rape have more rape supportive attitudes, are more likely to consider victims to be responsible for rape, and are less knowledgeable about the negative impact of rape on the victims.	Studies of cognitive factors that determine the behavior of rapists have already provided useful suggestions to improve the effectiveness of the treatment of rapists. However, further research in this area is necessary to increase our understanding of the etiology of rape and to devise treatment programs that are better tailored to the specific cognitive factors that characterize rapists.
7	Adulthood stressors, history of childhood adversity, and risk of perpetration of intimate partner violence	Andrea L Roberts Katie A McLaughlin Kerith J Conron Karestan C Koenen (2011)	Secondary data: 4,653 U.S. adults from the 2004-2005 follow-up wave of the National Epidemiologic Survey on Alcohol and Related Conditions.	Longitudinal study	Individuals	There was a significant stress sensitization effect. For men with high-level childhood adversity, past-year stressors were associated with an 8.8 percentage point (pp) increased risk of perpetrating compared to a 2.3 pp increased risk among men with low-level adversity. Women with high-level childhood adversity had a 14.3 pp increased risk compared with a 2.5 pp increased risk in the low-level adversity group.	The findings are subject to four main limitations. First, childhood experiences and IPV perpetration were retrospectively self-reported. Retrospective and self-reporting can lead to under-reporting, which could attenuate relationships between adversities or stressors and perpetration. In contrast, social desirability bias could cause overestimation of the adversity–IPV association if both adversity and IPV are under-reported.
8	Alcohol use, intimate partner violence, sexual coercion and HIV among women aged 15–24 in Rakai, Uganda	Iryna B Zablotska Ronald H Gray Michael A Koenig David Serwadda Fred Nalugoda	Primary data: Data were derived from the Rakai community cohort, Uganda, wherein enrolled adults aged 15–49 were followed	Longitudinal study	Individuals	HIV prevalence was significantly higher with alcohol consumption before sex (Adj OR = 1.45, 95% CI: 1.06–1.98) and especially when women reported both prior sexual coercion and alcohol use before sex (Adj OR = 1.79, 95% CI: 1.25–2.56). Alcohol use before sex was associated with physical violence and sexual coercion, and both are jointly associated with HIV	The study did not have the event-level data to link the events of alcohol use with the events of IPV. They had no information about the level of intoxication for women and their partners, the time between alcohol use and sex or partner's frequency of drinking.

		Godfrey Kigozi Nelson Sewankambo Tom Lutalo Fred Wabwire Mangen Maria Wawer (2009)	for eight survey rounds at 10–12 month intervals between 1994 and 2002.			infection risk in young women.	
9	An examination of the factors related to dating violence perpetration among young men and women and associated theoretical explanations: A review of the literature	Christina M Dardis Kristiana J Dixon Katie M Edwards Jessica A Turchik (2014)	Secondary data: a review of the literature on dating violence (DV) perpetration.	Literature review	Previous literature	Overall, many of the correlates and predictors of DV perpetration are similar among young men and women (e.g., witnessing interparental violence, experiencing child abuse, alcohol abuse, traditional gender roles, relationship power dynamics). However, young women's perpetration of DV is more strongly related to internalizing symptoms (e.g., depression), trait anger and hostility, and experiencing DV victimization than young men's perpetration, whereas young men's perpetration of DV is more consistently related to lower socioeconomic status and educational attainment, antisocial personality characteristics, and increased relationship length than young women's perpetration.	Over the past 30 years, a large body of literature has accumulated that attempts to identify the predictors and correlates of DV. However, given the number of conceptual, theoretical, and methodological issues plaguing this body of research, there is still much work needed to better understand young men's and young women's perpetration of DV. It is hoped that through stronger and more consistent and nuanced measurements and methodologies grounded in theory and sociopolitical contexts, sex similarities and differences in DV perpetration can be better understood in order to improve primary prevention efforts and reduce the devastating effects of DV on both victims and society.
10	Anger, hostility, internalizing negative emotions, and intimate partner violence perpetration:	Erica L. Birkley Christopher I. Eckhardt (2015)	Secondary data: meta-analytic review. One hundred and five effect sizes from 64 independent samples (61 studies) were	Meta-analytic review	Previous literature	IPV perpetration was moderately associated with the constructs of anger, hostility, and internalizing negative emotions. This association appeared stronger for those who perpetrated moderate to severe IPV compared to those who perpetrated low to moderate IPV, and did not vary across perpetrator sex, measurement method,	Few studies (N = 12) reported IPV severity; therefore, the strength of the mean difference (d = 1.00) between moderate-to-severe and low-to-moderate IPV perpetrators on anger, hostility, and depression should be interpreted with some caution. There was also limited geographic and ethnic diversity within the present

	A meta-analytic review		included for analysis.			relationship type, or perpetrator population.	sample as North American populations were exclusively examined and a large proportion of perpetrators were Caucasian. In addition, relatively few studies examined anger and internalizing negative affect arousal as a potential proximal cause of IPV-related behaviors, thus restricting our ability to specify the extent to which episodes of anger or emotional arousal are associated with acute incidents of IPV.
11	Associations between peer network gender norms and the perpetration of intimate partner violence among urban Tanzanian men: a multilevel analysis	Marta I Mulawa H Luz McNaughton Reyes Vangie A Foshee Carolyn T Halpern Sandra L Martin Lusajo J Kajula Suzanne Maman (2019)	Primary data are from the baseline assessment of an on-going cluster-randomized HIV and IPV prevention trial among men who socialize in camps in Dar es Salaam, Tanzania	Multilevel logistic regression models were used to examine peer network-level factors associated with past-year physical IPV perpetration.	Individuals	Peer network gender norms were significantly associated with men's risk of perpetrating IPV, even after adjusting for their own attitudes towards gender roles (*OR* = 1.53, *p* = .04). Peer network social cohesion moderated this relationship (*OR* = 1.50, *p* = .04); the positive relationship between increasingly inequitable (i.e., traditional) peer network gender norms and men's risk of perpetrating IPV became stronger as peer network social cohesion increased.	To measure peer network gender norms, the articles assessed individual attitudes towards gender role attitudes and then aggregated those individual attitudes to the peer network level. This approach assumes that the attitudes of all peer network members contribute equally to the peer network gender norms. Future studies should build on this work by exploring other ways to assess norms at the level of the peer network level, particularly in peer networks with low levels of social cohesion
12	Associations of emotional, physical, or sexual intimate partner violence and depression symptoms among South African	Chukwuemeka N Okafor Whitney Barnett Heather J Zar Raymond Nhapi Nastassja Koen Steve Shoptaw	Primary data: Participants were 981 South African women enrolled in the Drakenstein Child Health Study—a cohort study investigating the early life	Pooled-multivariable logistic regression models to determine associations between the three different forms of IPV and significant	Individuals	In the adjusted model including all forms of IPV and adjusting for sociodemographic and clinical characteristics, substance use, and childhood trauma, emotional (adjusted odds ratio [aOR] =1.55, 95% confidence interval (CI): [1.02, 2.34]; *p* = .039)] and sexual (aOR = 2.02, 95% CI: [1.10, 3.72]; *p* < .001) IPV were significantly associated with significant depression symptoms. The	Although the article aimed to preserve the temporal ordering of IPV and depression symptom relationship, it cannot infer causality regarding these associations. Because there was some overlap in the recall periods for IPV across time-points, we were unable to determine definitively that new experiences of IPV were associated with significant depressive symptoms at a subsequent

	women in a prospective cohort study	Dan J Stein (2018)	determinants of child health. Interview data from four time-points (antenatal care visit, 6 months, 12 months, and 18 months postpartum) were included.	depression symptoms while adjusting for time-fixed and time-updated covariates.		relationship between physical IPV and significant depression symptoms was not statistically significant (aOR = 0.68, 95% CI: [0.44, 1.05]; *p* = .485).	time-point.
13	Attitudes towards intimate partner violence against women among women and men in 39 low-and middle-income countries	Thach Duc Tran Hau Nguyen Jane Fisher (2016)	Secondary data: data from Round Four of the UNICEF Multiple Indicator Cluster Surveys. Attitudes towards IPV against women were assessed by a study-specific scale asking if 'wife beating' is justified in any of five circumstances.	Logistic regression	Individuals	The proportions of women who held attitudes that 'wife-beating' was justified in any of the five circumstances varied widely among countries from 2.0% (95% CI 1.7;2.3) in Argentina to 90.2% (95% CI 88.9;91.5) in Afghanistan. Similarly, among men it varied from 5.0% (95% CI 4.0;6.0) in Belarus to 74.5% (95% CI 72.5;76.4) in the Central African Republic.	Future studies can test if providing information and education on IPV for recently-married couples who are living in poor areas is effective for preventing IPV. Future studies should examine if this kind of intervention can help to change social norms about gender equality and have wider effects. The formal education sector can be a channel to educate young people about respectful relationships. There is the need for intervention programs in schools for adolescents and young adults
14	Behavioral and Attitudinal Factors Differentiating Male Intimate Partner Violence Perpetrators With and Without a	Rosalyn D. Lee Mikel L. Walters Jeffrey E. Hall Kathleen C. Basile (2012)	Primary data: a sample of men arrested for physical assault of a female intimate partner recruited from a corrections probation department in a metropolitan	Chi-square analyses and t-tests	Individuals	Chi-square analyses and t-tests indicated significant differences between perpetrators with and without a history of family violence on eight of eleven measures. Findings suggest perpetrators with a family violence history more strongly endorse ideas that present women and feminine attributes in a negative light. This research demonstrates that while exposure to family violence during	The conception of family violence used in this study did not include several other commonly measured forms of family violence (such as child neglect, elder maltreatment, and violence among other relatives). While the dataset included a measure of child sexual abuse, this measure could not be utilized in the present study because of the small number of valid responses provided by members

	History of Childhood Family Violence		area of Texas. A total of 351 men participated in the survey.			childhood is not necessary for IPV to occur, its presence may be a marker for more severe attitudinal and behavioral problems. Findings highlight the need for primary prevention efforts and can inform secondary prevention strategies.	of the sample.
15	Beliefs about sexual intimate partner violence perpetration among adolescents in South Africa	Katri Pöllänen Hein de Vries Catherine Mathews Francine Schneider Petrus J. de Vries (2018)	Secondary data: The study sample was taken from the baseline data of the Promoting sexual and reproductive health among adolescents in Southern and Eastern Africa study, a cluster-randomized controlled trial.	Multivariate ANOVA	Individuals	Results showed that boys were more frequently perpetrators (11.3% vs. 3.2%) and victims (13.6% vs. 6.4%) of sexual IPV than girls. Boys' attitudes toward perpetrating sexual IPV were more supportive than girls'. Boys perceived their social network to be more likely to think that putting pressure on a boyfriend or girlfriend to have sex is okay, and boys had a lower self-efficacy to refrain from pressuring a boyfriend or girlfriend to have sex compared with girls. Both boys and girls, who have perpetrated sexual IPV, had more tolerant attitude, social influence, and self-efficacy beliefs toward sexual IPV perpetration, compared with nonperpetrators. Intention not to perpetrate sexual IPV did not differ between boys and girls, or between perpetrators and nonperpetrators.	This study shows that, in both Nigeria and South Africa, adolescents who have witnessed VAW (whether among intimate partners or in the family) are more likely to have pro-VAW attitudes and beliefs. This highlights the need for measures to protect children from witnessing IPV and family violence before antisocial gender attitudes are entrenched in both contexts. It seems that exposure to oppression of women by men through violence establishes, through socialization, adolescent views that women are subordinate to men and deserving of violence.
16	Beyond correlates: A review of risk and protective factors for adolescent dating violence perpetration	Kevin J. Vagi Emily Rothman Natasha E. Latzman Andra Teten Tharp Diane M. Hall Matthew J.	Secondary data: a review of the literature on risk and protective factors for adolescent dating violence perpetration and highlight those factors for which temporal precedence has	Literature review	Previous studies	This review of a decade of research on dating violence perpetration found that there have been numerous studies that have established temporal order between no fewer than 64 different exposures and subsequent dating violence perpetration.	Some of the underlying studies failed to control for potentially confounding factors, including individuals' baseline dating violence perpetration score, which may have biased results away from the null (i.e., made certain predictors look more important than they might be in actuality). Future longitudinal studies that assess dating violence perpetration should include both Time 1 and Time 2 assessments.

		Breiding (2014)	been established by one or more studies.				
17	Bidirectional associations between acceptability of violence and intimate partner violence from adolescence to young adulthood.	Ryan C. Shorey Paula J. Fite Elizabeth D. Torres Gregory L. Stuart Jeff R. Temple (2019)	Primary data: A sample of diverse high school students (N = 1,042; 56% female) from the South-western United States were assessed each year for six consecutive years.	Descriptive statistics: means and standard deviations	Individuals	Structural equation modeling demonstrated that acceptability of male-to-female and female-to-male IPV were not consistent predictors of one's own IPV perpetration over time. In addition, minimal evidence was found for a bidirectional association between acceptability of IPV and one's own IPV perpetration over time. Moreover, minimal gender differences were evident and there were no differences based on race/ethnicity.	The acceptability of IPV was low across time, which may have contributed to the non-significant findings, as there was low variability with this construct. Moreover, the measure of acceptability of IPV only assessed two types of IPV (psychological and physical), and future studies should utilize measures that capture beliefs about different forms of IPV (e.g., sexual, cyber).
18	Child abuse and neglect and intimate partner violence victimization and perpetration: A prospective investigation	Cathy Spatz Widom Sally Czaja Mary Ann Dutton (2014)	Secondary data: data from a prospective cohort design study, children (ages 0–11) with documented histories of physical and sexual abuse and/or neglect (n = 497) were matched with children without such histories (n = 395) and assessed in adulthood (Mage = 39.5).	Frequency Tables and Logistic regression	Individuals	This study found that child maltreatment increases risk for the most serious form of IPV involving physical injury.	Future research should expand on these findings to test some of the theoretical explanations that have been offered explain the intergenerational transmission of spouse abuse and should continue the research that others have begun to examine potential mechanisms that may lead abused and neglected children to be at increased risk of IPV.
19	Concept Mapping: Engaging Urban Men to	Charvonne N. Holliday Sophie	Primary data: conducted concept mapping in	Frequency tables and Cluster Pathway Analysis	Individuals	Seven key domains, or clusters, were established. "No hope for the future" was the greatest contributor to IPV perpetration. "Socioeconomic	Future studies are needed to examine community influence on IPV perpetration over heterogeneity of demographic factors such as income,

	Understand Community Influences on Partner Violence Perpetration	M. Morse Nathan A. Irvin Angelique Green-Manning Lisa M. Nitsch Jessica G. Burke Jacquelyn C. Campbell Michele R. Decker (2019)	Baltimore, MD, with male participants of an abuse intervention program (AIP) at a local domestic violence agency between June 2016 and March 2017.			struggles" (i.e., lack of employment) and "life in Baltimore" (i.e., homicide) were most likely to result in stress. Emergent domains related to IPV perpetration and stress were ranked similarly, but with some nuance. Having good support systems (i.e., family, community centers) were felt to prevent IPV and reduce stress.	education, and environment.
20	Controlling behavior, power relations within intimate relationships and intimate partner physical and sexual violence against women in Nigeria	DiddyAntai (2011)	Secondary data: women aged 15 - 49 years in the 2008 Nigeria Demographic and Health Survey.	Multivariate logistic regression analysis	Individuals	Controlling behavior by husband/partner significantly increases the likelihood of physical and sexual IPV, thus acting as a precursor to violence.	The limitation of this study include its use of single types of abuse in isolation from the others, which does not control for co-occurrence with other types of violence and its significance for understanding the effects of abuse on victims.
21	Deconstructing hegemonic masculinity: The roles of antifemininity, subordination to women, and sexual dominance in men's perpetration of	Rachel M. Smith Dominic J. Parrott Kevin M. Swartout Andra Teten Tharp (2015)	Primary data: Participants were 208 heterosexual men between the ages of 21–35 who had consumed alcohol in the past year.	Frequency tables, Double Mediation Model	Individuals	Results indicated that adherence to the antifemininity norm and the tendency to experience stress when in subordinate positions to women were indirectly related to sexual aggression perpetration via adherence to the sexual dominance norm. Thus, the men who adhere strongly to these particular hegemonic masculine norms may feel compelled to be sexually aggressive and/or coercive toward an intimate	Because the current study used a cross-sectional design, we cannot confirm the temporal causality of the relationships tested. Future research is needed that examines attitudinal, motivational, and situational precursors to sexual aggression. For example, there exist several well-validated laboratory-based behavioral analogues that assess sexual aggression (e.g., Hall & Hirschman,

	sexual aggression.					partner in order to maintain their need for dominance within their intimate relationship.	1994) and its precursors (e.g., Bernat, Stolp, Calhoun, & Adams, 1997).
22	Differentials and Predictors of IPV against Nigerian Women in Rural and Urban Areas	Eugene Emeka Dim (2018)	Secondary data: 2013 Nigerian Demographic Health Survey (NDHS) data	Univariate, bivariate, and multivariate analysis.	Individuals	The study reveals several factors that associated with IPV cut across rural and urban areas, like the history of abuse and husband alcohol consumption, while several factors of IPV are peculiar to urban areas (like employment status and age predicting physical IPV), and rural areas (like wealth index and religion predicting physical IPV).	This study only examines how the unique socio-economic features of these places of residence shape women's victimization. Further studies can be undertaken in the area of qualitative research by uncovering some of the contextual basis of the associated variables found in the study among urban women and rural women.
23	Do changes in spousal employment status lead to domestic violence? Insights from a prospective study in Bangalore, India	Suneeta Krishnan Corinne H Rocca Alan E Hubbard Kalyani Subbiah Jeffrey Edmeades Nancy S Padian (2010)	Primary data: In 2005-2006, 744 married women, aged 16-25, residing in low-income communities in Bangalore, India were enrolled in the study.	Multivariable logistic regression models	Individuals	Women who were unemployed at one visit and began employment by the next visit had an 80% higher odds of violence, as compared to women who maintained their unemployed status. Similarly, women whose husbands had stable employment at one visit and newly had difficulty with employment had 1.7 times the odds of violence, as compared to women whose husbands maintained their stable employment.	It remains unknown whether women who choose to participate in studies such as this are any more or less likely to have experienced domestic violence
24	Experiences of racial discrimination & relation to violence perpetration and gang involvement among a sample of urban African American men	Elizabeth Reed J. G. Silverman J. R. Ickovics J. Gupta S. L. Welles M. C. Santana A. Raj (2010)	Primary data: Participants of this cross-sectional study were African American men (N = 703) between the ages of 18 and 65 years	Multivariate logistic regression models	Individuals	In logistic regression models adjusted for age and homelessness, men reporting high levels of discrimination (scores above the sample median) were significantly more likely to report IPV perpetration (Adjusted Odds Ratio (AOR) = 1.9; 95% Confidence Interval (CI): 1.2-2.9) and street violence involvement (AOR = 1.5; 95% CI: 1.1-2.2) as compared to men reporting lower levels of discrimination. No relation was found between experiencing discrimination and gang involvement	Future studies are needed to establish the temporal direction of this association, consideration of the relevance of racial discrimination and further exploration of the context of violence specific to the experiences of African American communities is critical for the development of tailored and effective violence prevention programs.
25	Exploring intimate	Philomina Okeke-	Secondary data: the researcher	meta-synthesis	Previous literature	The findings indicate that instances of IPV in Africa are primarily linked to	The findings underscore the need for more studies from African countries

	partner violence from the perspective of African men: A meta-synthesis	Ihejirikaa Bukola Salami Oluwakemi Amodub (2019)	integrated findings from multiple, related qualitative studies.			masculine hegemony, masculine intersubjectivity, and masculine defenses of non-violent identity. Furthermore, we find that their intimate female partners are seen as both active and passive actors in IPV. Constantly oscillating between love and abuse, the relationship between African men and women is paradoxical.	on African men's perspectives on IPV; research that focuses on effective ways of contesting repressive norms and restrictive stereotypes that contribute to IPV is particularly needed.
26	Fear of violent consequences and condom use among women attending an STD clinic	Mona Mittal Theresa E Senn Michael P Carey (2013)	Primary data: Participants (n = 478) were recruited between March 1, 2004 and June 30, 2006 from a public clinic that treats sexually transmitted diseases in upstate New York as part of a randomized controlled trial.	Randomized controlled trial (RCT)	Individuals	Seventeen percent of the sample reported IPV in the past 3 months. Recent IPV was associated with fear of violent consequences to requests for condom use, and such fear was associated with inconsistent condom use. Women who reported IPV also reported greater difficulties in negotiating safer sex behaviors with their abusers. So fear of violent consequences appeared to hinder their ability to protect themselves against HIV infection	The use of a cross-sectional design so that temporal relations could not be assessed, potential for uncontrolled confounding, role of social acceptability in self-report data, and brief measures that did not fully explicate IPV.
27	Gender differences in risk for intimate partner violence among South African adults	Jesse D Gass Dan J Stein David R Williams Soraya Seedat (2011)	Secondary data: data from the cross-sectional, nationally representative South Africa Stress and Health Study, the authors examine data from 1,715 currently married or cohabiting adults on	Multivariate logistic regression models	individuals	Prevalence rates of intimate partner violence were high among both genders, women were significantly more likely than men to report being victimized (29.3% vs. 20.9%). Rates of perpetrating violence were similar for women and men (25.2% and 26.5%, respectively). Men were more likely to report predictive factors for perpetration, whereas women were more likely to report predictors for victimization.	This study did not collect data on the severity, frequency, or context in which IPV took place. This is a potentially salient omission, as some research from the United States indicates that although men and women self-report perpetrating IPV at similar rates, there are significant gender differences in violent behaviours and motivations

			reporting of intimate partner violence.				
28	Gender, power, and violence: A systematic review of measures and their association with male perpetration of IPV	Katharine J. McCarthy Ruchi Mehta Nicole A. Haberland (2018)	Secondary data: five electronic databases to identify studies published between 2000 and 2015 that reported the association between such gender inequities and male perpetration of IPV.	Systematic review	Electronic databases	Measures inclusive of acceptance of violence against women or beliefs about men's sexual entitlement followed by scales that measured respondents' views on gender roles/norms, were most consistently associated with IPV perpetration. Measures of relationship power showed less consistent associations. We found few scales that measured peer or community norms	Further research is needed to understand how normative changes at the peer and community levels contribute to or sustain individual-level behaviour change
29	Health sector responses to intimate partner violence: A literature review	Kate Rees Virginia Zweigenthal Kate Joyner (2014)	Secondary data	Literature review	Previous studies	Exposure to IPV leads to wide-ranging and serious health effects. Women who have experienced IPV have described an appropriate response by healthcare providers to be non-judgmental, understanding and empathetic. IPV interventions that are complex, comprehensive and utilise systems-wide approaches have been most effective, but system- and society-level barriers hamper implementation.	Further research is needed to explore: how best to support health systems in providing IPV care; how to operationalise intersectoral approaches to IPV in health systems; and how to improve access to, including acceptability of, services.
	Hegemonic masculinity: reviewing the gendered analysis of men's power in South Africa	Robert Morrell Rachel Jewkes Graham Lindegger Vijay Hamlall (2013)	Secondary	Review of literature: Reviewing the gendered analysis of men’s power in South Africa	Literature on men and masculinity	Among the reasons that the concept of ‘hegemonic masculinity’ has become widely used in gender research in South Africa is because it can broaden the understanding of questions of gender inequality. The concept is multidimensional and allows consideration of men’s power over women, the multiple and unequal location of men themselves, fluidity in power relations and the persistence of	The measurement of hegemonic masculinity as a problem. Methodologically, any attempt to measure hegemonic masculinity must be mindful of many difficulties – its shifting and contested quality, the fact that it cannot be reduced to male

						patriarchal trends	bodies or to men or to individual acts, that it involves processes of legitimacy and resides in value and aspiration.
30	HIV Risk Behaviours and their Relationship to Intimate Partner Violence (IPV) Among Men Who Have Multiple Female Sexual Partners in Cape Town, South Africa	Loraine Townsend Rachel Jewkes Catherine Mathews Lisa Grazina Johnston Alan J. Flisher Yanga Zembe Mickey Chopra (2011)	Primary data: 428 recruited men	Logistic regression models	Individuals	Forty-one percent of the 428 recruited men had perpetrated IPV. Inconsistent condom use was associated with physical IPV; experiencing a symptom of a sexually transmitted infection and engaging in transactional sex were associated with physical and sexual IPV; problem alcohol use was associated with physical, and any IPV, but not sexual IPV; having five or more partners was associated with sexual IPV; perceptions of partners' infidelity were associated with physical and any IPV.	Given that the interviewers were all male, men may have felt compelled to over-report behaviours deemed to reflect successful masculinity. Equally, as behaviours that are otherwise socially condemned and illegal, or simply because men forgot, there may have been under-reporting.
31	How Thai Women Manage Living in the Context of Intimate Partner Violence	Nanthana Thananowan Phuangphet Kaesornsamut Tammy O'Rourke Kathy Hegadoren (2018)	Primary data: in-depth interviews were conducted with 40 Thai women	Iterative thematic analysis	Individuals	Based on the analysis, the process of managing their day-to-day life in the context of IPV revealed six major themes: keeping silent, disconnect between the fantasy of love and reality, seeking emotional support, ambivalence surrounding leaving, living with negative emotions, and despair and suicide.	Societal attitudes that overtly and covertly endorse violence against women must be challenged and legal means to allow women to end such violence must be put in place. Research to develop and test targeted interventions with women that support a woman's decision to stay or to leave is an essential next step.
	Interpersonal problems as a mediator between attachment and intimate partner violence	David M Lawson Stevie G Malnar (2011)	Primary data: 123 men	Meditational analyses	Individuals	Significant results indicated that (a) hostile dominant interpersonal problems mediated the relationship between avoidant attachment and violence severity, and (b) hostile dominant interpersonal problems mediated the relationship between avoidant attachment and psychological	The modest sample size may have provided insufficient power to identify all the important relationships related to outcome, although employing the bootstrap resampling procedure is less impacted by sample size than other analyses that assume normality of the

						aggression. Hostile dominant interpersonal problems did not mediate the relationship between anxious attachment and violence severity or psychological aggression.	sampling distribution.
32	Intimate partner violence among men having sex with men, women, or both: early-life sexual and physical abuse as antecedents	Seth L. Welles Theodore J. Corbin John A. Rich Elizabeth Reed Anita Raj (2011)	Primary data	Multiple regression analyses	Individuals	Men who have sex with men (MSM). This study of African American MSM revealed that these men have a high lifetime prevalence of physical and sexual abuse.	The pathways leading from childhood sexual and physical abuse are complex and worthy of future research.
33	Intimate partner violence among rural South African men: alcohol use, sexual decision-making, and partner communicatio n	Abigail M. Hatcher Christopher J. Colvin Nkuli Ndlovu Shari L. Dworkin (2018)	Primary data: in-depth interviews with men (n = 53)	Thematic analyses	Individuals	Many men described new patterns of reduced alcohol intake and improved partner communication, allowing them to respond in ways that did not lead to the escalation of violence. Sexual decision-making changed via reduced sexual entitlement and increased mutuality about whether to have sex. Men articulated the intertwined nature of each of these topics, suggesting that a syndemic lens may be useful for understanding intimate partner violence.	One challenge of applying quantitative descriptor data to qualitative interviews is that – unlike structured questionnaires – men may not report on changes for various reasons (they made no change; they were never asked; they were unclear about the change made). It will be beneficial for future studies to integrate both qualitative and quantitative evaluation tools
34	Intimate partner violence and perinatal common mental disorders among women in rural Vietnam	Jane Fisher Thach Duc Tran Beverley Biggs Tho Hai Dang Trang Thu Nguyen Tuan Tran	Secondary analysis of data	Logistic regression	Individuals	497 women were recruited and complete data were available from 417 (83.9%). Exposure to either lifetime or perinatal IPV including emotional abuse, physical violence and sexual violence was associated with increased CPMD symptoms (adjusted odds ratio, OR, ranges 1.3-14.3) and suicidal thoughts (OR ranges 4.7-6.1) in women during pregnancy and after childbirth. Experiencing more than one form of	The study did not assess duration of relationship with the intimate partner and, therefore cannot establish that the lifetime IPV occurred within these relationships.

		(2013)				IPV increased the magnitude of the association between IPV and common perinatal mental disorders of depression and anxiety (CPMD) symptoms and thoughts of suicide.	
35	Intimate partner violence and the association with HIV risk behaviors among young men in Dar es Salaam, Tanzania	Suzanne Maman Thespina J Yamanis Fiona G. Kouyoumdjian Melissa H. Watt Jessie Mbwambo (2010)	Primary data: A community-based sample of 951 men were interviewed, of whom 360 had sex in the past 6 months and were included in these analyses.	Multivariate Logistic Regression	Individuals	Almost a third of the men (29.2%) reported that they had been physically violent at least once with an intimate partner. Men who reported more lifetime sexual partners (OR = 8.75; 95% CI = 2.65, 28.92), experienced physical violence as a child at home (OR = 1.73; 95% CI = 1.09, 2.76), and were more educated (OR = 1.91; 95% CI = 1.18, 3.11) were significantly more likely to report perpetrating violence.	It is possible that the level of risk and violence in this population of young men was underreported, or depending on the perception of social desirability of responses, overreported by some young men.
36	Intimate partner violence and women's physical and mental health in the WHO multi-country study on women's health and domestic violence: an observational study	Mary Ellsberg Henrica AFM Jansen Lori Heise Charlotte H Watts Claudia Garcia-Moreno (2008)	Primary data: 24,097 women completed interviews	Logistic regression	Individuals	Intimate partner violence is associated with serious public-health consequences that should be addressed in national and global health policies and programmes.	It is possible that people who report ill health are more likely to recall or report experiences of violence: for instance, women who felt depressed or were in ill health might have recalled more negative events than other women.
37	Intimate partner violence as a factor associated with risky sexual behaviours	JC Mthembu G Khan MLH Mabaso LC Simbayi (2016)	Primary data	Multivariate logistic regression	Individuals	This study found that men who report IPV most often also engage in other forms of risky behaviours such as having a casual sexual partner, failure to use a condom and high-risk drinking. IPV was also associated with having fathered a child.	This study primarily focused on physical IPV, which might have excluded some men who use other forms of IPV.

	and alcohol misuse amongst men in South Africa						
38	Intimate partner violence attitudes and experience among women and men in Uganda	Ilene S Speizer (2010)	Secondary data: Uganda Demographic and Health Survey	Multivariate Logistic Regression	Individuals	More than half of men and nearly three quarters of women have attitudes supportive of wife beating in Uganda. More than half of married women report IPV victimization, and 40% of married men report perpetration. Women and men who reported witnessing their fathers beating their mothers were more likely to report IPV victimization (perpetration for men). Witnessing violence was also associated with positive attitudes toward wife beating among men.	The question about perpetration asked of men is much less comprehensive than the series of questions women received; this may have led to men underreporting IPV perpetration.
39	Intimate partner violence during pregnancy and perinatal mental disorders in low and lower middle income countries: a systematic review of literature, 1990–2017	Nafisa Halim Jennifer L. Beard Aldina Mesic Archana B Patel David C Henderson Patricia L. Hibberd (2018)	Secondary data	Literature review	peer-reviewed articles	Intimate partner violence and mental disorders during pregnancy have detrimental effects on the fetus, child, and mother.	The main limitation of this systematic review is to include studies, which assessed violence for a period that is inclusive of, but not exclusive to, pregnancy. Publication bias may have led to overestimation of associations.
40	Intimate partner violence functions as both a risk marker and risk factor for	Michele R. Decker George R. Seage David Hemenway	Primary data: 20,425 husband-wife dyads, which provided both IPV data and HIV test results	Logistic regression models	Individuals	Findings provide the first empirical evidence that abused wives face increased HIV risk based both on the greater likelihood of HIV infection among abusive husbands and elevated HIV transmission within abusive relationships.	While the analyses were based on a conceptual framework positing that husbands may be more likely to introduce HIV to the relationship, it is not possible to rule out the possibility that wives introduced HIV infection within concordant couples,

	women's HIV infection: findings from Indian husband-wife dyads	Anita Raj Niranjan Saggurti Donta Balaiah Jay G. Silverman (2009)					although this appears unlikely based on the current findings that wives' sexual risk was not associated with their HIV infection.
41	Intimate Partner Violence May Be One Mechanism by Which Male Partner Socioeconomic Status and Substance Use Affect Female Partner Health	Shervin Assari Rohan D. Jeremiah (2018)	Primary data	Chi-square test, univariate and bivariate analysis	Families	IPV is one of the mechanisms by which male partners' SES and substance use can influence female partners' health. That is, IPV may operate as a vehicle by which male partners' social and psychological risk factors impact female partners' health.	There are a number of unmeasured confounders such as physical health problems in female partner. In addition, the study was exclusively limited to heterosexual couples.
42	Intimate partner violence perpetration among adolescent males in disadvantaged neighbourhoods globally	Sarah M. Peitzmeier Anna Kågesten Rajib Acharya Yan Cheng Sinead Delany-Moretlwe Adesola Olumide, Robert W Blum, Freya L Sonenstein, Michele R Decker (2016)	Primary data: A cross-sectional survey was conducted in 2013 with males aged 15-19 recruited via respondent-driven sampling from disadvantaged neighborhoods in four cities	Logistic regression	Individuals	Past-year IPV perpetration was prevalent with differences identified across settings. Findings suggest the need to scale up evidence-based interventions targeting adolescents in disadvantaged urban communities in order to address many modifiable factors associated with IPV perpetration in this study.	The study lacked data on witnessing parental IPV, which has been linked with IPV perpetration, though inconsistently so.
43	Intimate partner violence	M R Decker G R Seage	Primary data: Data from a cross-sectional	Logistic regression	Individuals	Men's perpetration of physical and sexual violence against intimate partners is common among this	As IPV perpetration cannot directly cause STI/HIV, more comprehensive assessment of gendered sexual-risk

	perpetration, standard and gendered STI/HIV risk behaviour, and STI/HIV diagnosis among a clinic-based sample of men	D Hemenway J Gupta A Raj J G Silvermanl (2009)	survey of men ages 18–35 recruited from three community-based health clinics in an urban metropolitan area of the northeastern US (n=1585)			population. Abusive men are at increased risk for STI/HIV, with gendered forms of sexual-risk behaviour partially responsible for this association.	behaviours should be a priority of future research. If gendered sexual risk does, indeed, account for much of the association of IPV with STI, inclusion of such improved assessment in models predicting STI/HIV will result in greater attenuation of the association of IPV with STI/HIV.
44	Intimate partner violence theoretical considerations : Moving towards a contextual framework	Kathryn M Bell Amy E Naugle (2008)	Secondary data	Review and critique of current IPV theories	IPV Theories	By taking a contextual approach to investigating episodes of IPV perpetration, researchers may need to examine the interactions between the victim and the perpetrator immediately preceding and following the IPV incident in order to identify relevant proximal antecedents and consequences related to the event.	Future research is necessary in order to examine the extent to which each contextual unit as well as the contextual framework as a whole adequately predicts IPV episodes above and beyond current IPV theories.
45	Intimate partner violence victimization and alcohol consumption in women: A systematic review and meta-analysis	Karen M. Devries Jennifer C. Child Loraine J. Bacchus Joelle Mak Gail Falder Kathryn Graham Charlotte Watts Lori Heise (2013)	Secondary data	Systematic review and meta-analysis of cross-sectional and longitudinal studies released before 6 June 2013.	cross-sectional and longitudinal studies	There is a clear positive association between alcohol use and intimate partner physical or sexual violence victimization among women, suggesting a need for programming and research that addresses this link.	In general, control of confounding was poor in the included studies. Few longitudinal studies controlled for baseline characteristics, yet both IPV and alcohol use are episodic conditions which can occur at varying frequencies over time.
46	Intimate partner violence, health	Jesse D Gass Dan J. Stein David R Williams	Primary data: a sample of 1 229 married and cohabiting	Multivariate logistic regression	Individuals	Partner violence against women is a significant public health problem in South Africa, associated with health risk behaviours and increased use of	The study was subject to possible retrospective and social desirability biases, which may have contributed to underreporting of violence.

	behaviours, and chronic physical illness among South African women	Soraya Seedat (2010)	women			medical services.	
47	Intimate partners' violence in Ile-Ife, Nigeria: women's experiences and men's perspectives	Olusegun I Alatise Adesegun Fatusi (2006)	Primary data: Data on IPV experiences and associated factors were collected from 224 randomly selected married women and 99 men in Ile-Ife through administered questionnaire.	Chi-square test and binary logistic regression	Individuals	The result showed that IPV is a challenge in the Nigerian community and suggested that factors associated with IPV are rooted in the social environment and the overall cultural milieu, particularly as relates to the relative social status of men and women.	The study used a lifetime prevalence and a single scale item. Also, the challenge of underreporting of IPV has also been reported in the literature and the degree to which this occurs is difficult to quantify in most studies.
48	Longitudinal dating violence victimization among Latino teens: Rates, risk factors, and cultural influences	Chiara Sabina Carlos A Cuevas Heather M Cotignola-Pickens (2015)	Secondary data: data from two waves of the Dating Violence Among Latino Adolescents (DAVILA) study	Multinomial logistic regression of longitudinal dating violence status	Individuals	The results from the present study show the patterns of dating violence victimization over time, including the overlap of dating violence victimization with other forms of victimization.	Future studies could seek to engage participants between data collection waves, use online samples, and/or focus on high-risk samples. Further, while two measures were used to measure dating violence victimization, it is possible other factors associated with dating violence were excluded.
49	Longitudinal Predictors of Intimate Partner Violence Perpetration and Victimization in Latino Emerging Adults	Carolina Villamil Grest Hortensia Amaro Jennifer Unger (2017)	Primary data	Logistic regression	Individuals	The results indicate important gender differences in intimate partner violence outcomes for Latino emerging adults. Higher U.S. acculturation predicted physical intimate partner violence perpetration among young men.	The findings cannot be generalized to participants lost to attrition, who had lower Hispanic orientation, more traditional gender role attitudes, more use of tobacco and marijuana, and higher depressive symptoms.

50	Male perpetration of teen dating violence: Associations with neighbourhood violence involvement, gender attitudes, and perceived peer and neighbourhood norms	Elizabeth Reed Jay G. Silverman Anita Raj Michele R. Decker Elizabeth Miller (2011)	Primary data: Participants of this cross-sectional study (N = 275) were between the ages of 14 and 20 years and recruited from urban community health centers.	Logistic and linear regression models	Individuals	The findings suggest that efforts are needed to address boys' behaviors related to the perpetration of multiple forms of violence and require explicit efforts to reduce perceived norms of violence perpetration as well as problematic gender attitudes (e.g., increasing support for gender equity) across boys' life contexts.	There is a need to further investigate the environmental factors (especially those that pertain to urban neighborhood contexts) that influence TDV perpetration among male adolescents.
51	Men's aggression toward women: A 10-year panel study	Hyoun K Kim Heidemarie K Laurent Deborah M Capaldi Alan Feingold (2008)	Primary data: community sample of young couples (N = 194) from at-risk backgrounds.	Multilevel Growth Modeling with Hierarchical Linear Modeling	Individuals	Findings indicated that men's aggression decreased over time and that women's antisocial behavior and depressive symptoms predicted changes in men's aggression.	The present study did not test gender differences in the partner's role in the developmental trajectories of partner aggression.
52	Partner violence, power, and gender differences in South African adolescents' HIV/sexually transmitted infections risk behaviors.	Anne M. Teitelman John B. Jemmott Scarlett L. Bellamy Larry D. Icard Ann O'leary G. Anita Heeren Zolani Ngwane Sarah J. Ratcliffe	Primary data: 786 sexually experienced adolescents	logistic regression models	Individuals	These findings suggest that IPV and relationship power operate differently in relation to the sexual risk behaviors of adolescent boys and girls in heterosexual relationships in South Africa.	The study did not assess age of partner in relation to partner violence or relationship power; therefore, it cannot be assumed that the adolescent girls and boys in this study had similar aged partners.

		(2017)					
53	Perpetration and Victimization of Intimate Partner Violence Among Young Men and Women in Dar es Salaam, Tanzania	Marta Mulawa Lusajo J. Kajula Thespina J. Yamanis Peter Balvanz Mrema N. Kilonzo Suzanne Maman (2016)	Primary data	Multilevel logistic regression	Individuals	The study found greater prevalence of male victimization and female perpetration of IPV in this population than we anticipated as interventions in the region mostly target men as perpetrators and women as victims.	Individuals experiencing the most severe forms of IPV (which may be less likely to be directional within relationships) may not have been willing to participate in our survey because they might fear their partners' reactions. Further research is needed to better understand the motivations, intentions, and contexts of IPV in this setting.
54	Perpetration of partner violence and HIV risk behaviour among young men in the rural Eastern Cape, South Africa	Kristin Dunkle Rachel K Jewkes Mzikazi Nduna Jonathan Levin Nwabisa Jama Nelisiwe Khuzwayo Mary P Koss Nata Duvvury (2006)	Primary data: Structured interviews with 1275 sexually experienced men aged 15-26 years from 70 villages in the rural Eastern Cape	Multiple regression models	Individuals	Young men who perpetrate partner violence engage in significantly higher levels of HIV risk behaviour than non-perpetrators, and more severe violence is associated with higher levels of risky behaviour.	The low HIV prevalence among men in our study (2.0%) made it impossible to assess the association between IPV perpetration and HIV serostatus, a question that will need to be explored in future research.
55	Physical health consequences of physical and psychological intimate partner violence	Ann L Coker Paige H Smith Lesa Bethea Melissa R King Robert E McKeown (2000)	Primary data: 1152 women, aged 18 to 65 years	Logistic regression	Individuals	Psychological IPV has significant physical health consequences. To reduce the range of health consequences associated with IPV, clinicians should screen for psychological forms of IPV as well as physical and sexual IPV.	The study did not confirm diagnoses with existing medical records because many health outcomes of interest would not have been documented in a medical record or may not have the age at first occurrence needed to sequence the outcome relative to IPV experience. Therefore, health outcome data may be misclassified.
56	Physical	Jhumka Gupta	Secondary data:	Logistic	Individuals	The study found a high prevalence of	The data used did not include

	violence against intimate partners and related exposures to violence among South African men	Jay G. Silverman David Hemenway Dolores Acevedo-Garcia Dan J. Stein David R. Williams (2008)	834 male participants in the South Africa Stress and Health Study	regression		physical violence perpetrated by men against their intimate partners. Men who experienced physical abuse during childhood or were exposed to parental violence were at the greatest risk.	information on the age at which exposure to physical violence occurred during childhood or the identity of perpetrators of child abuse, data that might allow greater precision in assessing the risk of perpetrating violence against intimate partners in adulthood.
57	Playing by the Rules: Agency Policy and Procedure in Service Experience of IPV Survivors	Leila Wood Laurie Cook Heffron Molly Voyles Shanti Kulkarnissss (2017)	Primary data	Thematic analysis	Individuals	Findings indicated rules affect individual survivors' and families' experiences and responses in services and of healing from IPV (micro), the relationships among residents and between residents and staff (mezzo), and participants' relationships with the agency as an institution and the help-seeking community (macro).	Future research will benefit from greater numbers of survivor participants, additional geographic diversity, and more comprehensive representation of the experiences of survivors of color, those with disabilities, and LGBT (lesbian, gay, bisexual, and transgender) folks.
58	Prevalence and associated factors of intimate partner violence among pregnant women attending Kisumu District Hospital, Kenya	Lyndah A. Makayoto Jared Omolo Abel M. Kamweya Valarie S. Harder Joseph Mutai (2013)	Primary data	Chi square, multiple regression models	Individuals	We found no association between HIV status and IPV. IPV is common among women seeking antenatal care at Kisumu District Hospital.	Male partners may prevent their female partners from accessing healthcare as a means of control. This may suggest that these women may be under-represented in healthcare settings; conversely authors in previous research have also reported the increased occurrence of illness among women exposed to IPV
59	Racial Discrimination as a Risk Factor for	Tara E Sutton Leslie Gordon Simon Brittany T	Primary data	Path analysis	Individuals	Results demonstrated that anger and hostile attribution bias mediate the association between racial discrimination and IPV perpetration.	Information on the length of the men's romantic relationships is not available in our data set. Future work should investigate whether the

	African American Men's Physical Partner Violence: A Longitudinal Test of Mediators and Moderators	Martin Eric T Klopack Frederick X Gibbons Steve R H Beach Ronald L Simons (2019)				Both corporal punishment and authoritative parenting acted as moderators, but the patterns of influence differed.	processes examined here have similar effects at different stages of intimate relationships.
60	Rape perpetration by young, rural South African men: Prevalence, patterns and risk factors	Rachel Jewkes Kristin Dunkle Mary P. Koss Jonathan B Levin Mzikazi Nduna Nwabisa Jama Yandisa Sikweyiya (2006)	Primary data: 1370 male volunteers were recruited from 70 rural South African villages.	Generalised linear mixed models	Individuals	Among these men 16.3% had raped a non-partner, or participated in a form of gang rape; 8.4% had been sexually violent towards an intimate partner; and 79.1% had done neither.	It is possible that some of the men who reported participation in streamlining had been involved in organising it, but did not have sexual intercourse with the woman
61	Re-theorizing intimate partner violence through post-structural feminism, queer theory, and the sociology of gender	Clare Cannon Katie Lauve-Moon Frederick P. Buttell (2015)	Secondary data	Re-Theorizing Intimate Partner Violence	Theoretical frameworks	Aspects of the current traditional feminist theoretical framework, as discussed throughout this article, inhibits our ability to accurately view the problem of IPV in LGBT relations, as scholars who study female perpetrators in heterosexual relationships have found. Deconstructing gender and power binaries creates new opportunities to re-conceptualize IPV for male and	In-depth examination of the relationship between gender, sexuality, power, and IPV should be further investigated through quantitative studies that account for structural variables (e.g., structural equation modeling), as well as through qualitative studies that address nuanced ways perpetrators understand and "do gender" on interactional levels.

						female perpetrators in heteronormative couples as well as LGBTQ couples.	
62	Relationship of physical intimate partner violence with mental health diagnoses in the nationwide emergency department sample	Hind A Beydoun Megan Williams May A Beydoun Shaker M. Eid Alan B. Zonderman (2017)	Primary data	Multivariable logistic regression models	Individuals	In emergency departments (ED), physical intimate partner violence (PIPV) was linked to several mental health disorders, with women experiencing comorbid PIPV and substance use more frequently than men	Little data could be gleaned from HCUP NEDS regarding clinical presentation and since our study included only ED patients, physicians may not have been aware of relevant patient experiences, due to the urgency of events. This may explain the paucity of secondary diagnostic codes available for each patient.
63	Responding to Men's Violence Against Women Partners in Post-apartheid South Africa: On the Necessity of Identification Across Identity's Intersections	Floretta Boonzaier Sarah Frances Gordon (2015)	Primary data	Thematic analysis	Individuals	The study show how social identifications such as age, gender, race and class intersect to produce different possibilities for counsellors and clients, but also how identification involves more than just social similarity.	There is need for a more complex reading of identification as more than just social similarity, which may mean that a responsive response involves working through psychic identification to overcome difference in the counselling encounter.
64	Risk factors for male perpetration and female victimization of intimate partner homicide (IPH): a meta-analysis	Chelsea M Spencer Sandra M. Stith (2018)	Secondary data	Meta-analysis examined results from 17 studies, which included 148 effect sizes used in the analysis.	Previous literature	Primary findings from this research suggest the strongest risk factors for IPH were the perpetrator having direct access to a gun, perpetrator's previous nonfatal strangulation, perpetrator's previous rape of the victim, perpetrator's previous threat with a weapon, the perpetrator's demonstration of controlling behaviors, and the perpetrator's previous threats to harm the victim.	Future research would benefit from the use of comparison samples in order to truly examine what would put individuals at a greater risk of IPH, rather than reporting solely on prevalence rates.

65	Risk markers for physical intimate partner violence: A meta-analysis	Chelsea M Spencer Sandra M. Stith Bryan Cafferky (2018)	Secondary data	Meta-analysis	Data from 391 studies	The study found that the strongest risk markers for IPV victimization for both men and women were risk markers located in the microsystem, and specifically risk markers associated with previous relationship violence.	The results of this study did not separate results from clinical populations and community populations. It is important to acknowledge this when interpreting the results, as there may be differences depending on the population sampled in each individual study.
66	Testing the Cycle of Violence Hypothesis: Child Abuse and Adolescent Dating Violence as Predictors of Intimate Partner Violence in Young Adulthood	Anu Manchikanti Gómez 2010	Primary data - data from three waves of the National Longitudinal Study of Adolescent Health	Regression models	Individuals	The results of this analysis indicate that child abuse and adolescent dating violence victimization are highly predictive of young adult IPV, and the relationship is not attenuated by parental or social factors.	The retrospective measurement of child abuse is problematic. Measures of child abuse were not included in the Add Health survey until Wave 3, when respondents were between the ages of 18 and 26.
67	The association between substance use and intimate partner violence within Black male same-sex relationships	Elwin Wu Nabila El-Bassel L Donald McVinney Leona Hess Mark V Fopeano Hyesung Grace Hwang Mahnaz R. Charania Gordon Mansergh (2014)	Secondary data: secondary analysis on a data set from 74 individuals	Multivariate logistic regression	Individuals	These findings indicate that IPV was prevalent among this sample of predominantly HIV-positive, Black MSM couples to a substantial degree: More than a third reported either perpetrating IPV, experiencing IPV, or both at some point in the relationship with their current main partner; more than a quarter reported IPV occurring within this relationship in the past 30 days.	The lack of event-level data and temporal precision prohibit inference on causality or direction of the relationship between substance use and IPV.

68	The effect of intimate partner violence and other forms of violence against women on health	Carmen Vives-Cases María Teresa Ruiz-Cantero Vicenta Escribá-Agüir Juan José Miralles (2011)	Primary data	Multivariate logistic regression models	Individuals	The results of this study show that IPV is the most prevalent type of VAW in Spain. Violence perpetrated by other known and unknown men appeared to occur at work or in the street, whereas IPV was the most frequent form of violence in the home.	An under-estimation of the prevalence of VAW is possible due to an information bias when women refuse to answer questions about their current situation as regards violence.
69	The relationship between intimate partner violence, rape and HIV amongst South African men: a cross-sectional study	Rachel Jewkes Yandisa Sikweyiya Robert Morrell Kristin Dunkle (2011)	Primary data	Multivariable logistic regression model	Individuals	Perpetration of physical IPV is associated with HIV sero-prevalence in young men, after adjusting for other risk factors.	Generalizability may be limited by the fact that the men who gave blood for HIV testing differed in some ways from those who refused, however adjusting the model for the socio-demographic variables that differed between those who did and did not test did not alter the findings.
70	The Role of Intimate Partner Violence in Homicides of Children Aged 2–14 Years	Avanti Adhia S Bryn Austin Garrett M Fitzmaurice David Hemenway (2018)	Secondary data	Descriptive statistics, Chi-square tests	Individuals	This study suggests that as many as one in five cases of homicides of children aged 2 to 14 years in the U.S. may be related to IPV.	This study uses data for only 16 states for the years 2005–2014, so results may have limited generalizability. The states are not randomly selected but appear to be fairly representative of the U.S. in terms of characteristics, such as geographic location and levels of household gun ownership.
71	Traumatic childhood exposures in the lives of male perpetrators of female intimate	Margaret Watt Debra A. Scrandis (2013)	Primary data	Interviews: Thematic analysis	Individuals	All participants experienced abuse, neglect, or violence exposure in childhood and exhibited similar patterns of behaviour (school/mental health issues, substance abuse, and legal issues) that evolved into perpetration of IPV. Brief screening for trauma, abuse, and IPV exposure needs	The researcher has the potential to have biases about the participants and thus the interactions can influence the participants according to Gadamer's hermaneutics.

	partner violence					to be universal for all children instead of being selectively applied.	
72	UN Multi-country Study on Men and Violence Study Team. Women's and men's reports of past-year prevalence of intimate partner violence and rape and women's risk factors for intimate partner violence: A multicountry cross-sectional study in Asia and the Pacific	R Jewkes E Fulu R Tabassam Naved E Chirwa K Dunkle R Haardörfer C Garcia-Moreno (2013)	Primary data	Multinomial regression models, frequency tables	Individuals	The study shows that IPV perpetration is fairly common in the Asia-Pacific region, although the prevalence varies widely by site.	Most samples were not nationally representative and thus typify only the sites included.
73	Variations in Emotional, Sexual, and Physical Intimate Partner Violence Among Women in Uganda: A Multilevel Analysis	Prince M Amegbor Laura Pascoe (2019)	Secondary data	Chi-square test, multivariate analysis	Individuals	The results shows that women's educational status is a significant predictor of all forms of IPV, whereas other characteristics, such as employment and housing ownership, have differential effects on specific types of IPV.	Information provided by respondents in the UDHS cannot independently verify due to self-reporting. Self-reporting also creates the tendency of overreporting or underreporting IPV incidents and overestimating/underestimating socioeconomic characteristics.
74	Violence in adolescents' romantic relationships:	L. R. Swart Mohamed Seedat	Primary data	Chi-square tests and frequency tables	Individuals	The study found significant associations between the beliefs about violence in a romantic relationship, the witnessing of physical violence in	This study is limited as it only focusses on a restricted number of the variables associated with violence in adolescent romantic relationships.

	findings from a survey amongst school-going youth in a South African community	Garth Stevens Izabel Ricardo (2002)				friendship contexts, the use of alcohol and adolescent dating violence.	Further research is therefore required to identify the possible mediating or resiliency factors, as not all youth living in the same conditions become victims or perpetrators of violence in their romantic relationships.
75	Violent experiences in childhood are associated with men's perpetration of intimate partner violence as a young adult: a multistage cluster survey in Malawi	Kristin E Vanderende James A Mercy M. S. Shawa McKnight Kalanda Justin Hamela Nankali Maksud Brendan Ross Sundeep Gupta Nellie Wadonda-Kabondo Susan D. Hillis (2016)	Primary data: data from 450 ever-partnered 18- to 24-year-old men interviewed in the Malawi Violence Against Children and Young Woman Survey.	Logistic regression	Individuals	Among young men in Malawi, exposure to violence in childhood is associated with an increased odds of perpetrating IPV, highlighting the need for programs and policies aimed at interrupting the intergenerational transmission of violence.	This analysis included a measure of men's lifetime perpetration of IPV, and it is possible that in some cases, the outcome—young men's perpetration of IPV, may have occurred before exposures to violence in childhood

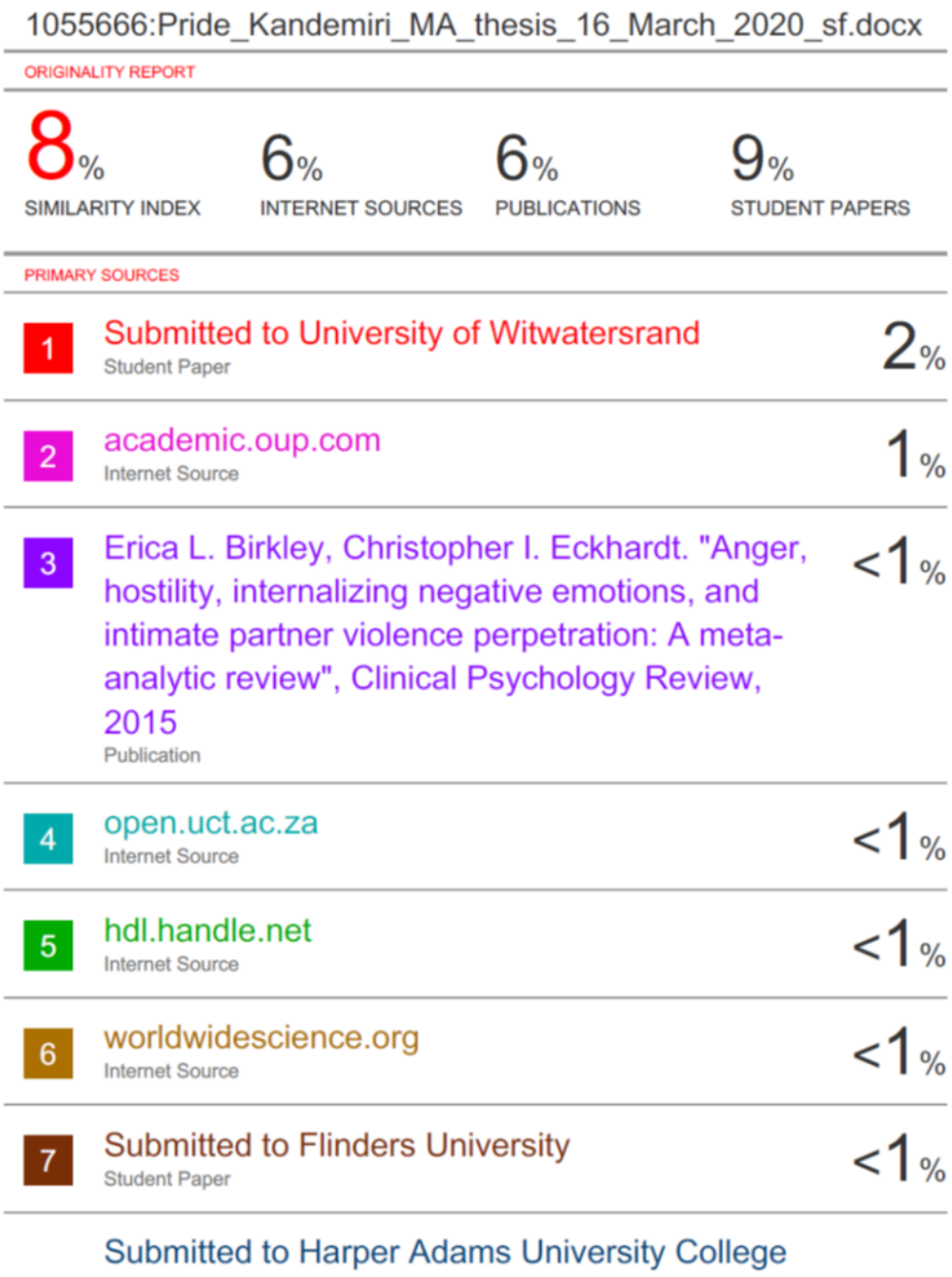
Appendix 2: Multicollinearity test

	Age	Age at first cohabitation	Age of wife/partner	Race	Region	Place of residence	Employment status	Education level	Type of employment	Number of sexual partners	Fertility Preference	Decision-making autonomy	Attitudes towards wife beating
Age	1												
Age at first cohabitation	0.3199	1											
Age of wife/partner	0.4433	0.1149	1										
Race	0.0863	-0.057	0.184	1									
Region	-0.076	0.0086	-0.1288	-0.3966	1								
Place of residence	0.0508	0.0091	0.002	-0.2844	0.288	1							
Employment status	-0.1448	-0.0263	-0.1679	0.044	0.0559	-0.0322	1						
Education level	-0.1714	0.0026	-0.1545	0.1347	0.0131	-0.191	0.193	1					
Type of employment	0.0739	0.0021	0.0615	0.1349	0.0006	-0.0755	0.0834	0.3387	1				
Number of sexual partners	-0.126	-0.0753	-0.0901	-0.0942	0.0613	0.1008	0.0585	0.0299	-0.0232	1			
Fertility Preference	0.4266	0.0303	0.4152	0.1517	-0.0749	-0.0189	-0.0669	-0.0266	0.0733	-0.0813	1		
Decision-making autonomy	0.0534	0.0138	0.0619	0.0372	-0.0437	0.0019	-0.0659	-0.0227	-0.0259	-0.0585	0.0269	1	
Attitudes towards wife beating	-0.0104	-0.0486	-0.0248	-0.0344	-0.0466	0.0897	-0.0518	-0.0568	-0.0363	0.0606	-0.0801	-0.0572	1

Variance Inflation Factor (VIF)

Variable	VIF	1/VIF
Age	3.8	0.26294
Age at first cohabitation	3.2	0.312692
Age of wife/partner	1.45	0.690967
Race	1.37	0.731503
Region	1.29	0.772467
Place of residence	1.28	0.783525
Employment status	1.27	0.787202
Education level	1.25	0.800279
Type of employment	1.23	0.810505
Number of sexual partners	1.08	0.922689
Fertility Preference	1.06	0.939006
Decision-making autonomy	1.06	0.944638
Attitudes towards wife beating	1.04	0.958254
Mean VIF	1.57	

Appendix 3: Turnitin report



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