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Gender Differences in Risk for Intimate Partner Violence Among South African Adults

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Abstract

Despite a high prevalence of intimate partner violence in South Africa, few epidemiological studies have assessed individual risk factors and differential vulnerability by gender. This study sought to analyze gender differences in risk for intimate partner violence victimization and perpetration according to childhood and adult risk factors in a national sample of South African men and women. Using data from the cross-sectional, nationally representative South Africa Stress and Health Study, we examined data from 1,715 currently married or cohabiting adults on reporting of intimate partner violence. Our analysis included (i) demographic factors; (ii) early life risk factors (including exposure to childhood physical abuse, witnessing parental violence, parental closeness, and early onset DSM-IV disorders); and (iii) adult risk factors (including experiencing the death of a child and episodes of DSM-IV disorders after age 20). Although 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. Common risk factors among men and women reporting perpetration included exposure to childhood physical abuse, witnessing parental violence, and adult onset alcohol abuse/dependence. However, risk factors in male perpetrators were more likely to include cohabitation, low income, and early and adult onset mood disorders, whereas risk factors in female perpetrators included low educational attainment and early onset alcohol abuse/dependence. The single common risk factor for male and female victims of partner violence was witnessing parental violence. Additional risk factors for male victims were low income and lack of closeness to a primary female caregiver, whereas additional risk factors for female victims were low educational attainment, childhood physical abuse, and adult onset alcohol abuse/dependence and intermittent explosive disorder. Intimate partner violence is a significant public health issue in South Africa, strongly linked to intergenerational cycling of violence and risk exposure across the life course. These findings indicate that gender differences in risk and common predictive factors, such as alcohol abuse and exposure to childhood violence, should inform the design of future violence-prevention programs and policies.

Keywords

Gender; Intimate partner violence; South Africa

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Introduction

Intimate partner violence (IPV) is a public health problem of global significance, with estimates indicating that the lifetime prevalence of experiencing partner violence is between 15% and 71% among women worldwide (Garcia-Moreno, Jansen, Ellsberg, Heise, & Watts, 2006). This form of violence is characterized by behavior within an intimate relationship that causes physical, psychological, or sexual harm to a partner (Heise & Garcia-Moreno, 2002), and is commonly used to define violence against women by male partners. It has been well-documented that IPV is associated with grave health consequences among women, including an increased risk for morbidity and mortality (Campbell, 2002; Ellsberg, Jansen, Heise, Watts, & Garcia-Moreno, 2008). Although this area of research has received substantial international attention, less effort has been made to investigate the prevalence of violence perpetrated against men in heterosexual relationships, which some studies have found to be equivalent to rates of violence perpetrated against women. The bidirectional nature of violence within partnerships represents an important area of inquiry, as prior investigations have found significant gender differences in violent behaviors and motivations, which may indicate important differentials in IPV risk factors and outcomes for men and women (Archer, 2000; Swan, Gambone, Caldwell, Sullivan, & Snow, 2008). For instance, although perpetration rates may be similar among men and women, the severity of perpetration by women has been found to be much lower. However, there is a dearth of international data examining the different factors that place both genders at risk for perpetration and victimization.

It has been well-documented that South Africa has an extremely high prevalence of IPV. Although estimates vary, studies have consistently shown high rates of violence against women and correlations with injury and adverse mental and physical health outcomes, including alcohol abuse and HIV/AIDS (Campbell, 2002; Doolan, Erlich, & Myer, 2007; Dunkle, Jewkes, Brown, Gray, McIntryre, & Harlow, 2004; Gupta, Silverman, Hemenway, Acevedo-Garcia, Stein, & Williams, 2008; Jewkes, 2002; Seedat, Stein, Jackson, Heeringa, Williams, & Myer, 2009; Williams, Williams, Stein, Seedat, Jackson, & Moomal, 2007). For example, the 1998 Demographic and Health Survey found that 13% of women had been abused by an intimate partner during their lifetime and that adult women were more than twice as likely to be assaulted by a current or ex-partner than by anyone else (Department of Health & Macro International, 1998). A cross-sectional study among women in three South African provinces showed a 24.6% lifetime prevalence rate of experiencing IPV (Jewkes, Levin, & Penn-Kekana, 2002) and a study among men in the rural Eastern Cape Province found that 31.8% reported ever using physical violence against a female partner (Dunkle, Jewkes, Nduna, Levin, Jama, Khuzwayo, et al., 2006). Despite varied estimates, these data strongly suggest that partner violence against women is highly prevalent.

However, while previous research has highlighted the scope of violence against women in South Africa and the factors that place women at risk for experiencing such abuse, fewer studies have investigated the prevalence of violence against men or elucidated possible risk factors for male perpetration and victimization. Furthermore, there is a paucity of nationally-representative epidemiological data on the overall prevalence of IPV among South African men and women and gender differentials in risk for violence.

Post-Apartheid South African society has been characterized by extremely high rates of community-level and interpersonal violence, including homicide, sexual and gender-based violence, and child abuse, which are fueled by a constellation of factors such as socioeconomic inequality, gender inequity, and substance abuse (Doolan et al., 2007; Gilbert, 1996; Jewkes & Abrahams, 2002; Seedat, Van Niekerk, Jewkes, Suffla, & Ratele, 2009; Williams, Herman, Kessler, Sonnega, Seedat, Stein, et al., 2004). Studies indicate, for

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example, that over half of female homicide victims are killed by their intimate partners and that both perpetrators and victims are most often found with high blood alcohol content at the time of the crime (Seedat, Van Niekerk, et al., 2009).

In South Africa, exposure to violence in childhood is as ubiquitous as it is in adulthood. According to statistics, homicide rates of children younger than five years are more than double the rates in low-income and other middle-income countries, with higher rates among boys than girls, a sex differential that increases as children enter adolescence (Norman, Matzopoulos, Groenewald, & Bradshaw, 2007). Child abuse is also common, with studies indicating that boys are at greater risk for physical violence, whereas girls are more likely to report experiencing sexual abuse (Seedat, Van Niekerk, et al., 2009).

Internationally, studies on the intergenerational learning of violence are conflicting. While a number of studies lend support to to the intergenerational transmission of IPV, a meta-analysis of the association between witnessing or experiencing family violence in childhood and receiving or perpetrating violence in an adult heterosexual cohabiting or marital partnership found only a weak-to-moderate relationship. Furthermore, intergenerational transmission of violence may operate differently for men and women, with data indicating a stronger relationship between growing up in a violent home and victimization for females and perpetration for males (Stith, Rosen, Middleton, Busch, Lundeberg, & Carlton, 2000). Another recent review also suggested a consistent association between male perpetrators' childhood experiences of violence and the occurrence of IPV against women (Gil-Gonzalez, Vives-Cases, Ruiz, Carrasco-Portino, & Alvarez-Dardet, 2007).

In addition to sex differentials in risk for victimization and perpetration of violence, gender has also been linked to differences in violence exposure and incidence of psychiatric disorder (Seedat & Stein, 2000; Wong, Huang, DiGangi, Thompson, & Smith, 2008). However, little research has been dedicated to examining how gender differences in risk for IPV are associated with violence experienced across the life course and mental disorders, particularly those with an early onset. Furthermore, although the high prevalence of violence in South Africa has been well-documented, questions remain as to how the intergenerational and cyclical dynamics of violence in society pose a differential risk for IPV in males and females.

In response to this knowledge gap, our study sought to investigate gender differences in vulnerability to IPV in order to further understand the mechanisms by which multiple associated factors predict partner violence. Using data from a national sample of South African adults, we examined the prevalence of IPV and analyzed gender differences in risk according to (i) demographic factors; (ii) early life risk factors (including exposure to childhood physical abuse, witnessing parental violence, parental closeness, and early onset DSM-IV disorders); and (iii) adult risk factors (including experiencing the death of a child and episodes of DSM-IV disorders after age 20).

Methods

Sample and Procedure

This study used data from the South Africa Stress and Health Study (SASH) (Williams et al., 2004; Williams, Herman, Stein, Heeringa, Jackson, Moomal, et al., 2008), a nationally-representative psychiatric epidemiological survey of 4,351 adult South Africans (aged ≥ 18 years) living in households and hospital-based hostels, conducted between 2002 and 2004 as part of the World Health Organization's World Mental Health Survey Initiative. The SASH sample was selected using a three-stage clustered area probability sample design. The first stage involved the selection of stratified primary sample areas based on the 2001 South

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African Census Enumeration Areas. The second stage involved the sampling of housing units within clusters selected within each Enumeration Area. The third stage involved the random selection of one adult respondent in each sampled housing unit. Sampling for the current study was determined by the following inclusion criteria: report of being currently married or in a cohabiting relationship and response to the survey questions about perpetration of physical violence against an intimate partner and victimization of physical violence by an intimate partner.

Data collection proceeded province by province with a cohort of 40–60 interviewers in each province. All SASH interviewers were trained in field research methods and the administration of the paper-and-pencil version of the Composite International Diagnostic Interview used by the World Mental Health Survey Initiative (Kessler & Ustun, 2004). Surveys were administered in person during pre-scheduled appointments in one of seven languages: English, Afrikaans, Zulu, Xhosa, Northern Sotho, Southern Sotho and Tswana. Field interviewers made up to three attempts to contact each respondent and the overall response rate was 85.5%. All recruitment, consent, and field procedures were approved by the Human Subjects Committees of the University of Michigan and Harvard Medical School. A single project assurance of compliance was obtained from the Medical University of South Africa (MEDUNSA), which was approved by the National Institute of Mental Health.

Measurement

For questions pertaining to IPV, respondents were asked to refer to their current or most recent marriage or cohabiting relationship. Respondents were then asked how often, when they had a disagreement, they pushed, grabbed, shoved, threw something, slapped, or hit their partner or spouse (often, sometimes, rarely, never). They were then asked how often their partner or spouse performed any of those acts (often, sometimes, rarely, never). Violence was defined as occurring often, sometimes, or rarely. Our data collection instrument assessed physical violence based on modified items from the internationally-validated Conflict-Tactics Scale (Straus, 2004; Straus, Hamby, Boney-McKoy, & Sugarman, 1996).

We examined three sets of risk factors: demographic characteristics, early life risk factors, and adult risk factors. Demographic variables included race, age, marital status, educational attainment, income, employment status, and location (rural vs. urban). Racial categories (black, coloured, Indian, white) were used in the analyses as a marker of historical social and economic opportunity in relation to health outcomes. Early life risk factors included exposure to childhood physical abuse, witnessing parental violence, closeness to primary male and female caregivers, and onset of DSM-IV disorders before age 20, including alcohol abuse (with or without dependence), intermittent explosive disorder, anxiety disorders (panic disorder, social phobia, agoraphobia, generalized anxiety disorder, post-traumatic stress disorder) and mood disorders (major depressive disorder, dysthymia). Adult risk factors included number of living and dead children and episodes of DSM-IV disorders after age 20. The presence of DSMIV disorders was assessed using the WHO Composite International Diagnostic Interview Version 3.0 (Kessler & Ustun, 2004).

Responses regarding IPV, experiencing childhood physical abuse, and witnessing parental violence were dichotomized as ever versus never. Closeness to primary caregivers was measured by the responses “very” or “somewhat” versus “not very” or “not at all.”

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Statistical Analysis

In order to account for the stratified multistage sampling design and adjust for non-response and selection bias, the sample was weighted to approximate the population distribution of South Africa on key demographic variables. A post-stratification weight was also used to make the sample distribution comparable to the population distribution in the 2001 South African census. The weighting and geographic clustering of the data were accounted for in data analyses using the Taylor series linearization method in the SUDAAN statistical package (Research Triangle Institute, 2008), which adjusts standard errors for the stratified design and sample weights.

Gender differences were analyzed using chi squared tests for all categorical values. The association between risk factors and partner violence was analyzed through the use of logistic regression. To progressively develop models that reflect their temporal ordering, the multivariate analyses measured risk factors in blocks. Block 1 adjusted for demographic variables. Block 2 adjusted for significant demographic variables and early life risk factors. Block 3 adjusted for significant demographic and adult risk factors. Unadjusted and adjusted odds ratios and 95% confidence intervals are presented here.

Results

Sample Characteristics

Table 1 provides distributions of demographic and risk factor characteristics. The cohort was comprised of 1,715 adults, the majority of whom were married (78%). Most were female (63%), black African (72%), urban-dwelling (57%), and between 35 and 49 years of age. The mean overall age was 42 (SD=13), with a mean age of 44 among males and 41 among females. Approximately one quarter of respondents had completed primary school and half had attained some level of secondary education. The majority of respondents were unemployed and, while women were more likely to be unemployed than men (71.6% vs. 44.8%), income distribution was relatively similar between genders.

Rates of early exposure to violence were high. Nearly 20% of the sample had been exposed to physical abuse during childhood and approximately 25% had witnessed violence between their parents or primary caregivers. Respondents reported higher degrees of closeness to their female caregivers than their male caregivers. The proportion of men and women reporting these early life risk factors were similar; however, there were statistically significant gender differences in onset of mental disorders before age 20. Women had higher rates of early life anxiety and mood disorders, while men had higher rates of early onset alcohol abuse/dependence. Though not statistically significant, men had higher rates of intermittent explosive disorder.

Similar gender differentials were found in reporting of mental disorders after age 20. Rates of alcohol abuse/dependence were nearly 20% among men, more than four times higher than rates among women. As in childhood, a higher proportion of men met criteria for adult episodes of intermittent explosive disorder, while more women than men met criteria for mood and anxiety disorders. The majority of respondents reported having living children. 17.5% of women compared to 12% of men reported ever experiencing the death of a child.

Prevalence of Intimate Partner Violence

As shown in Table 2, women were significantly more likely than men to report IPV victimization within their most recent marriage or intimate partnership (29.3% vs. 20.9%). 26.5% of men and 25.2% of women reported perpetrating violence against their most recent

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spouse or partner. While a similar proportion of men and women reported male-to-female violence, more women than men reported female-to-male violence.

Risk Factors

Tables 3 and 4 present the unadjusted and adjusted odds ratios for risk factors for IPV as reported by men and women. Men who reported perpetrating IPV were more likely to be in a cohabiting relationship, versus being married, than men who did not report perpetration. In childhood, men reporting perpetration were 3.5 times as likely to have experienced physical abuse in the home and 4 times as likely to have witnessed violence between their parents or primary caregivers. Furthermore, these men were 7 times as likely to have experienced intermittent explosive disorder before age 20. In adulthood, men who perpetrated violence were twice as likely to report alcohol abuse/dependence and mood disorders and 5 times as likely to report intermittent explosive disorder after age 20. In the multivariate analysis, cohabitation, low income, childhood physical abuse, witnessing parental violence, early and adult onset mood disorders, and adult episodes of alcohol abuse/dependence remained significant.

Men who reported that their intimate partners were violent towards them were more likely to be younger in age and to earn less income than those who did not report IPV victimization. They were twice as likely to have experienced physical abuse in the home, 3.5 times as likely to have witnessed parental violence, and nearly 3 times as likely to report that they were not close to their primary female caregivers as a child. Low income, parental violence, and lack of closeness to a female caregiver remained significant in the multivariate analysis.

Women who reported that they had perpetrated violence against an intimate partner were more likely to be Indian and in a cohabiting relationship than women who did not report perpetration. Among early life risk factors, women reporting perpetration were 3 times as likely to have been exposed to childhood physical abuse and to have witnessed violence between their parents or primary caregivers. They were also more likely to report that they were not close to their primary female caregivers. Moreover, women reporting perpetration were nearly 7 times as likely to have early onset alcohol abuse/dependence. In adulthood, these women were 4 times as likely to have alcohol abuse/dependence and almost twice as likely to have an anxiety disorder. In the multivariate analysis, low educational attainment, childhood physical abuse, parental violence, and early and adult onset alcohol abuse/dependence emerged as significant. In addition, the adjusted analysis revealed that women reporting perpetration were significantly less likely to have early onset intermittent explosive disorder than women who did not report perpetration.

Women who reported that they had been a victim of IPV were more likely to be Indian, younger in age, in a cohabiting relationship, and to have lower levels of educational and economic attainment than women who did not report victimization. These women were almost 4 times as likely to have experienced childhood physical abuse and to have witnessed violence between their parents or primary caregivers, and twice as likely to report that they were not close to their primary male caregivers as a child. They were also more likely to have an early onset anxiety disorder. Among adult risk factors, women reporting IPV victimization were nearly 5 times as likely to have alcohol abuse/dependence and intermittent explosive disorder and twice as likely to have an anxiety disorder after age 20. In the multivariate analysis, education, childhood physical abuse, parental violence, and adult episodes of alcohol abuse/dependence remained significant. Intermittent explosive disorder after age 20 was also found to be significantly related to IPV victimization among women.

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Discussion

A number of key findings warrant discussion. Rates of IPV victimization were significantly higher among women than men (29.3% vs. 20.9%). Although data on IPV gender patterns are limited, this finding is consistent with estimates gathered from a smaller sample of South African adults (Wong et al., 2008) and population-based studies conducted in other southern African countries (Andersson, Ho-Foster, Mitchell, Scheepers, & Goldstein, 2007), which found higher exposures to IPV among women than men. It is worth noting that research on gender symmetry in IPV conducted in the US and other developed countries has found mixed, often contradictory results (Hamberger, 2005; Straus, 2006; Swan et al., 2008). Rates of physical violence reported by female respondents were similar to those previously found among South African women (Jewkes et al., 2002; Jewkes, Penn-Kekana, Levin, Ratsaka, & Schrieber, 2001).

Male respondents reported slightly higher rates of IPV perpetration than female respondents (26.5% vs. 25.2%). Rates of male perpetration roughly aligned with rates of victimization reported by women. However, while 25.2% of women reported behaving violently towards their male partners, only 20.9% of men indicated that they had been the victims of violence. One interpretation for this discrepancy is that men under-reported experiencing IPV due to social desirability bias. Researchers have observed that, although IPV is viewed as a serious social problem in South Africa, male control over women remains prominent and violence against female partners is commonly tolerated (Abrahams & Jewkes, 2005; Jewkes et al., 2002). In this social context, it has been posited that violence perpetrated by women against their male partners is deemed inappropriate or shameful. Similar reporting disparities have been found in national studies conducted in other countries and attributed to cultural response bias (O'Leary, Tintle, Bromet, & Gluzman, 2008).

The majority of research on IPV in South Africa has addressed violence against women, examining prevalence estimates of female victimization and male perpetration. In the current study, rates of IPV victimization among female respondents fell within the range of previous estimates (24.6% – 55%) (Dunkle et al., 2004; Jewkes et al., 2002), although male perpetration rates were slightly lower than previous estimates (31.8% – 42.3%) (Abrahams, Jewkes, Laubscher, & Hoffman, 2006; Dunkle et al., 2006). However, drawing direct comparisons between our results and prior findings is limited due to variations in research methodology, including differences in operational definitions of IPV, sample inclusion criteria, data collection methods, and barriers to disclosure. It is particularly likely that inconsistencies in defining violence and variations in time frames significantly influence discrepancies in prevalence estimates. For instance, had we also collected data on sexual and psychological abuse, it would have allowed for reporting on a wider range of violent behavior and our rates may have been higher.

Furthermore, assessing lifetime prevalence, as opposed to IPV within the current or most recent partnership, and including adults without a history of marriage or cohabitation may also have altered levels of reported violence. Other recent studies have found different gender patterns of violence among the South African population, which may be accounted for by methodological differences. For example, a recent analysis of life stress and mental disorders in the SASH study conducted by Seedat, Stein, et al. (2009) also found significantly higher levels of victimization among women than men (19% vs. 11.2%). However, contrary to our findings, that analysis revealed that women were also more likely than men to perpetrate violence (17% vs. 14.4%). However, that analysis used broader sampling criteria, including both currently and previously married/cohabiting adults. Another recent analysis conducted by Stein et al. (2009) also found that women were more likely to perpetrate than men (17.1% vs. 14.1%), however that sample also included single

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as well as married and cohabiting adults. A meta-analytic review of sex differences in physical aggression between heterosexual partners found that single respondents showed significantly higher effect sizes in female perpetration than married or cohabiting respondents (Archer, 2000). The majority of studies included in the review were conducted in the United States, which precludes direct comparison with our findings. However, it is possible that in the South African context women who are not married or cohabiting are more likely to endorse perpetration of violence than women who are currently in a more formal married or cohabiting partnership. In sum, although the methodological differences discussed above impede direct comparison between studies, our findings support previous conclusions that IPV is a widespread phenomenon in South Africa.

Overall, IPV perpetration and victimization correlated more strongly with life experience variables, such as childhood exposure to physical violence and incidence of mental disorders, than demographic factors. This is consistent with previous findings (Jewkes, 2002; Stith, Smith, Penn, Ward, & Tritt, 2004). Among men, low income was significantly positively associated with perpetrating violence, which has been found in prior studies (Jewkes, 2002). However, our results indicated that men with lower income were also at greater risk for victimization, which to our knowledge is a relatively new finding. Researchers have postulated that a man's inability to meet the financial obligations associated with traditional masculinity may increase his probability of exercising power through the perpetration of IPV. It is possible that financial insecurity may also increase male vulnerability to violence. Another possible interpretation is that conflict over finances mediates the relationship between low income among men and an increased probability of the occurrence of violence. Research aimed at uncovering the social and interpersonal factors that mediate poverty and IPV would likely provide more insight into the dynamics of risk for victimization and perpetration.

Among female respondents, low educational attainment was significantly positively associated with IPV victimization. This association has also been observed elsewhere (Jewkes, 2002), which strongly suggests that future violence-prevention programs should aim to increase levels of education and discourage early partnering among girls and female adolescents.

Early exposure to violence was among the strongest predictors of IPV. Witnessing parental violence was associated with perpetration and victimization among all respondents. A quarter of men and women had witnessed violence between their parents or primary caregivers, a prevalence rate that is similar to estimates in previous South African studies (Abrahams & Jewkes, 2005). Exposure to physical abuse in childhood was also a significant risk factor for IPV, associated with perpetration among all respondents and with victimization among women. These results are supported by a substantial body of international research suggesting that there is a positive relationship between childhood maltreatment, witnessing interparental violence, and intimate partner abuse later in life (Abrahams & Jewkes, 2005; Bensley, Van Eenwyk, & Simmons, 2003; Campbell, Greeson, Bybee, & Raja, 2008; Fang & Corso, 2007; Gratz, Paulson, Jakupcak, & Tull, 2009; Jeyaseelan, 2004). Studies have found that men and women with a history of child abuse or witnessing IPV are at greater risk for perpetrating and experiencing IPV as an adult (Bensley et al., 2008; Gratz et al., 2009). Although the mechanisms underlying this relationship are unclear, some researchers have postulated that children exposed to violence in the home learn to view violence as an acceptable means of conflict resolution (Abrahams & Jewkes, 2005) and a normative aspect of intimate relationships (Jewkes et al., 2001). Furthermore, domestic violence in childhood may serve as a model for abuse in adulthood by fomenting feelings of low self-esteem or powerlessness, insecure attachment, or post-traumatic stress, which may in turn prevent individuals from forming healthy relationships (Bensley et al.,

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2003). Given the high prevalence of childhood exposure to domestic violence in South Africa, our findings indicate that interventions designed to reduce IPV among adults would also serve to mitigate the impact of IPV on future generations.

Although exposure to childhood violence was significantly positively associated with IPV among both male and female respondents, our study also found gender differences in certain early life risk factors, with childhood physical abuse associated with victimization among women and lack of closeness to a primary female caregiver associated with victimization among men. These results suggest that intergenerational dynamics of intimacy and violence pose a differential risk for IPV in males and females. Future violence prevention programs should consider these different sources of vulnerability and provide violence interventions for girls and promote positive female role models for boys.

Early onset mental disorders had a weaker correlation with IPV than early exposure to violence. Among those included in the study, early onset mood disorders and alcohol abuse/dependence were predictive of perpetration among men and women respectively. Few studies have examined the relationship between early onset psychiatric disorders and risk of IPV in adulthood. However, a similar study conducted in the Ukraine also found that early onset alcohol abuse/dependence correlated with an increased risk of perpetration in women (O'Leary et al., 2008). Our results also revealed an association between early onset intermittent explosive disorder and a decreased risk of perpetration among women, which contradicts previous findings. Only 10 of the 1,074 women in the analysis reported early onset intermittent explosive disorder, which may account for this unusual result.

Among adult risk factors, episodes of mental disorders after age 20 were found to be the most significant variables related to IPV, the most consistent being alcohol/abuse dependence. It has been well-documented that alcohol abuse is a significant risk factor for violence; researchers have thus argued that any comprehensive IPV intervention must also address alcohol abuse (Jewkes, 2002; O'Leary et al., 2008). A recent meta-analytic review summarized data from 85 studies on primarily male-to-female intimate partner abuse and calculated effect sizes for perpetration and victimization risk factors (Stith et al., 2004). Alcohol use among men emerged with a moderate effect size for perpetration and female alcohol abuse was found to be a small risk factor for victimization. Male alcohol abuse has been strongly linked with domestic violence in South Africa (Department of Health, 1998; Jewkes et al., 2002). In this study, a large proportion of male respondents reported adult onset alcohol abuse/dependence (18.8%), more than 4 times the rate of female respondents (4.2%). Alcohol abuse/dependence after age 20 was correlated with perpetration among men and perpetration and victimization among women. Given our study's cross-sectional design, it is not possible to determine whether alcohol abuse/dependence is a risk factor for or a result of IPV. However, although it is difficult to establish a causal relationship between these variables, our findings support previous assertions that intervening in alcohol abuse problems should be a crucial component of future violence-prevention programming.

Although more women than men reported adult episodes of mood (10% vs. 7.2%) and anxiety (15.8% vs. 9.2%) disorders, among those, only male reports of mood disorders were significantly predictive of IPV perpetration. Previous studies have found mood disorders, particularly depression, to be among the most highly prevalent mental disorders associated with IPV. However, this finding has primarily been tested among female victims of violence (Campbell, 2002). Furthermore, depression has been most commonly viewed as a sequela of IPV, not a risk factor. A study recently conducted among adult South Africans in Cape Town found that women who had been recently abused were more likely to suffer from depression than men who had been recently abused (Wong et al., 2008). The same study did not measure risks associated with perpetration. These methodological differences limit

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comparison between current and previous estimates. In light of these discrepant findings and the unique association that emerged from our study between early and adult onset of mood disorders and increased risk of perpetration among men, further research is needed to better understand the mental health risk outcomes and predictors associated with IPV and their gender differentials.

Several limitations in this analyses warrant mention. Our 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 behaviors and motivations. Studies have found, for example, that women are more likely than men to commit violence in self-defense and that women's violence is less severe than male violence (Archer, 2000; Swan et al., 2008). These findings suggest that there are important differences in the types of IPV committed by men and women, which may be tied to differentials in risk factors and outcomes. Beyond the limitations pertaining to violence assessment and sample inclusion criteria mentioned earlier, our findings are also limited by a lack of data on the timing of IPV and violence exposures in childhood, information that may help target future IPV preventive interventions. Furthermore, our study did not measure violence exposures in adolescence. Additional limitations include temporal issues brought about by the cross-sectional design, and possible retrospective and social desirability biases, which may have contributed to underreporting of violence. However, measuring exposures during childhood and adulthood helped mitigate the potential for confounding that may have been introduced by ill-defined temporality. In addition, the data collection instrument that was used assessed specific forms of physical violence based on modified items from the internationally-validated Conflict-Tactics Scale in order to decrease such biases (Straus, 2004; Straus et al., 1996). Finally, due to the cross-sectional nature of the study, it is not possible to draw causal inferences from associations. Furthermore, the directional relationship between variables, whether factors such as psychiatric disorders are predictors or results of IPV, cannot be ascertained.

The current findings suggest that violence is a widespread and serious public health problem in South Africa, affecting both women and men in their intimate partnerships. Our results further indicate that there are gender differences in quantity and type of risk for IPV, which should inform the design of future violence-prevention programs and policies. Women were significantly more likely to experience violence by a male partner; thus, greater efforts should be made to reduce female victimization and male perpetration, based on individual associated risk factors. Our findings also indicate, however, that attention should be paid to male victims and that further research is needed to elucidate the potentially bidirectional dynamics of violence within partnerships. Gender-specific interventions that are tailored to the needs of perpetrators and victims are more likely to create behavior change than programs based solely on models of male violence against women. Specifically, interventions should aim to reduce poverty among men and increase educational attainment and discourage early partnering among women. Addressing alcohol abuse/dependence should be a crucial component of any violence-prevention program for both genders, as should screening for other mental disorders. Furthermore, given that exposure to violence in childhood is strongly predictive of IPV in adulthood, the trajectory of violence across the life course should be addressed with targeted, developmentally-timed interventions. Our findings suggest that multiple associated factors are predictive of partner violence. Future investigations should be dedicated to understanding the complex mechanisms underlying these associations, which the scope of our study was unable to address. For example, further research is needed to examine the pathways between childhood exposures and adult behaviors, looking at the interpersonal, social, structural, and environmental factors that establish and reinforce violence as normative. Such knowledge may be instructive for the

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design of early interventions. Finally, given discrepancies in existing prevalence estimates, it is important that researchers maintain consistent definitions of IPV and weigh methodological factors when drawing comparisons across studies.

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Table 1

Demographic and Risk Factor Characteristics of Married/Cohabiting Men and Women

	Total (*N*=1,715)	Men (*N*=641)	Women (*N*=1,074)	Test Statistic
Demographic variables				
Race				
Black	1231	69.7 (3.3)	71.9 (2.4)	1.2 (.3032)
Coloured	235	12.8 (1.2)	10.4 (1.2)	
White	154	13.4 (3.1)	12.0 (2.0)	
Indian	95	4.1 (0.9)	5.7 (0.8)	
Age				
18–34	575	26.1 (1.5)	34.2 (1.6)	4.2 (.0087)
35–49	676	38.9 (2.4)	39.2 (1.5)	
50–64	365	27.6 (1.8)	21.6 (1.2)	
65+	99	7.3 (1.2)	5.1 (0.7)	
Marital status				
Married	1333	77.6 (2.5)	79.2 (1.5)	0.4 (.5561)
Cohabiting	382	22.4 (2.5)	20.8 (1.5)	
Education				
None	159	9.2 (1.4)	7.7 (1.2)	3.1 (.0216)
Grade 1–7	414	20.3 (2.6)	24.4 (1.4)	
Grade 8–11	605	33.1 (3.1)	38.8 (1.8)	
Grade 12	274	18.3 (2.2)	14.6 (1.3)	
Grade 13+	263	19.1 (1.7)	14.5 (1.9)	
Income				
0	209	10.8 (1.8)	12.3 (1.5)	1.0 (.4258)
1–500	388	20.9 (2.8)	22.4 (1.4)	
1501–16500	424	26.7 (2.4)	21.7 (1.4)	
16501–97500	371	21.7 (2.1)	23.3 (1.8)	
97501+	323	19.9 (1.6)	20.3 (1.5)	
Employment				
Unemployed	1079	44.8 (2.8)	71.6 (2.1)	44.9 (.0000)
Employed	636	55.2 (2.8)	28.4 (2.1)	
Location				
Rural	738	34.5 (2.4)	41.7 (1.9)	7.2 (.0096)
Urban	977	65.5 (2.4)	58.3 (1.9)	
Early life risk factors				
Childhood violence	323	18.4 (1.8)	17.6 (1.4)	0.1 (.7237)
Parental violence	433	24.4 (2.2)	25.0 (1.8)	0.0 (.8466)
Not close to PFC	89	6.0 (1.1)	5.7 (0.9)	0.1 (.8072)
Not close to PMC	162	9.9 (1.6)	9.0 (0.8)	0.3 (.5954)
Disorders before age 20				
Alcohol abuse/dependence	32	4.4 (1.4)	0.8 (0.3)	6.3 (.0147)

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	Total (*N*=1,715)	**Men (*N*=641)**	**Women (*N*=1,074)**	**Test Statistic**
IED	20	2.4 (0.9)	1.1 (0.4)	2.2 (.1466)
Anxiety Disorder	125	4.2 (1.1)	9.1 (1.0)	16.1 (.0002)
Mood Disorder	53	1.8 (0.6)	4.1 (0.9)	4.7 (.0348)
Adult risk factors				
Living children	1543	89.8 (1.5)	91.1 (1.0)	0.6 (.4510)
Dead children	263	12.0 (2.3)	17.5 (1.4)	4.1 (.0470)
Disorders since age 20				
Alcohol abuse/dependence	154	18.8 (2.3)	4.2 (0.8)	31.5 (.0000)
IED	39	3.8 (1.3)	2.1 (0.5)	1.5 (.2279)
Anxiety Disorder	237	9.2 (1.3)	15.8 (1.1)	15.3 (.0002)
Mood Disorder	165	7.2 (1.0)	10.0 (1.2)	2.6 (.1120)

Values are percents with standard errors in parentheses

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Table 2

Rates of Partner Violence Reported by Married/Cohabiting Men and Women

		Men	Women	Test statistic
Perpetrator				
No	1262	73.5 (2.6)	74.8 (1.8)	0.2 (.6581)
Yes	453	26.5 (2.6)	25.2 (1.8)	
Victim				
No	1257	79.1 (1.8)	70.7 (1.6)	14.3 (.0004)
Yes	458	20.9 (1.8)	29.3 (1.6)	

Values are percents with standard errors in parentheses

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Table 3

Bivariate and Adjusted Odds Ratios (95% CI) for Partner Violence Reported by Men

	Perpetrator		Victim	
	OR	**AOR**	**OR**	**AOR**
Demographic variables				
Race				
Black	1.00	1.00	1.00	1.00
Coloured	0.95 (0.6–1.6)	1.05 (0.6–1.9)	0.91 (0.5–1.8)	1.29 (0.6–2.8)
White	1.00 (0.3–2.9)	2.29 (0.6–9.5)	0.56 (0.3–1.1)	1.00 (0.3–3.1)
Indian	1.36 (0.5–3.7)	1.62 (0.5–5.5)	1.41 (0.7–3.0)	1.67 (0.7–4.1)
Age				
18–34	1.36 (0.6–3.3)	0.79 (0.3–2.4)	3.18 (1.2–8.7)	1.92 (0.5–7.1)
35–49	0.80 (0.3–2.0)	0.48 (0.2–1.2)	2.10 (0.7–6.2)	1.57 (0.5–5.1)
50–64	0.92 (0.3–2.4)	0.51 (0.2–1.4)	1.75 (0.6–5.3)	1.12 (0.3–3.9)
65+	1.00	1.00	1.00*	1.00
Marital status				
Married	1.00	1.00	1.00	1.00
Cohabiting	1.75 (1.0–2.9)*	1.93 (1.0–3.6)*	1.60 (1.0–2.6)	1.14 (0.7–2.0)
Education				
None	2.33 (1.0–5.4)	2.35 (0.7–7.9)	1.85 (0.7–5.1)	1.66 (0.5–5.6)
Grade 1–7	1.85 (0.9–3.6)	1.98 (0.7–5.5)	1.53 (0.8–2.9)	1.16 (0.5–2.5)
Grade 8–11	1.91 (0.9–3.9)	2.55 (0.9–7.5)	1.40 (0.7–2.6)	1.40 (0.7–2.9)
Grade 12	2.74 (1.3–5.8)	2.43 (0.9–6.3)	2.08 (0.9–4.8)	1.76 (0.7–4.4)
Grade 13+	1.00	1.00	1.00	1.00
Income				
0	2.48 (0.8–7.5)	2.61 (0.9–7.8)	3.85 (1.7–8.7)	3.93 (1.4–11)**
1–500	2.51 (1.2–5.4)	2.46 (1.1–5.4)*	3.93 (2.1–7.5)	3.88 (1.6–9.6)**
1501–16500	2.60 (1.2–5.8)	2.80 (1.2–6.4)*	2.63 (1.2–5.8)	2.54 (1.0–6.8)
16501–97500	2.11(1.0–4.3)	2.01 (1.0–4.1)	2.81 (1.1–6.9)	2.80 (1.0–8.0)*
97501+	1.00	1.00	1.00***	1.00
Employment				
Unemployed	1.00 (0.6–1.7)	0.84 (0.5–1.5)	0.78 (0.5–1.3)	0.70 (0.4–1.2)
Employed	1.00	1.00	1.00	1.00
Location				
Rural	1.00	1.00	1.00	1.00
Urban	0.76 (0.4–1.3)	0.85 (0.5–1.6)	0.82 (0.5–1.2)	0.95 (0.5–1.7)
Early life risk factors				
Childhood violence	3.53 (2.3–5.4)***	2.19 (1.1–4.3)*	2.09 (1.2–3.5)**	0.90 (0.5–1.7)
Parental violence	4.20 (2.6–6.9)***	3.23 (1.8–5.8)***	3.57 (2.1–6.2)***	3.64 (1.8–7.3)***
Not close to PFC	1.26 (0.6–2.8)	0.80 (0.3–1.9)	2.74 (1.3–6.0)**	2.47 (1.0–6.0)*
Not close to PMC	1.58 (0.8–3.1)	1.49 (0.7–3.1)	1.44 (0.7–3.0)	1.07 (0.4–2.6)

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	Perpetrator		Victim	
	OR	**AOR**	**OR**	**AOR**
Disorders before age 20				
Alcohol abuse/dependence	1.61 (0.6–4.2)	0.54 (0.2–1.9)	1.21 (0.3–4.5)	0.54 (0.1–2.3)
IED	7.06 (1.4–35.9)*	2.06 (0.2–23)	3.04 (0.6–16.0)	3.74 (0.5–31)
Anxiety Disorder	0.79 (0.3–2.4)	0.77 (0.2–3.7)	1.37 (0.5–3.9)	2.08 (0.5–8.4)
Mood Disorder	0.60 (0.1–2.8)	0.27 (0.1–1.0)*	0.82 (0.2–4.0)	0.35 (0.1–1.3)
Adult risk factors				
Living children	0.91 (0.5–1.7)	1.15 (0.5–2.7)	0.73 (0.4–1.5)	0.89 (0.4–2.2)
Dead children	1.37 (0.5–3.5)	1.32 (0.5–3.4)	0.98 (0.5–1.9)	1.06 (0.5–2.1)
Disorders since age 20				
Alcohol abuse/dependence	2.31 (1.5–3.6)***	1.88 (1.1–3.2)*	1.46 (0.9–2.5)	1.10 (0.6–2.1)
IED	5.46 (2.3–12.9)***	3.55 (0.6–21)	1.68 (0.6–5.1)	0.59 (0.1–2.5)
Anxiety Disorder	0.82 (0.4–1.9)	0.50 (0.2–1.6)	0.89 (0.4–1.9)	0.54 (0.2–1.9)
Mood Disorder	2.30 (1.2–4.3)**	2.91 (1.5–5.7)**	1.73 (0.8–4.0)	2.13 (0.9–5.2)

* (p-value ≤ .05),

** (p-value ≤ .01),

*** (p-value ≤ .001)

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Table 4

Bivariate and Adjusted Odds Ratios (95% CI) for Partner Violence Reported by Women

	Perpetrator		Victim	
	OR	**AOR**	**OR**	**AOR**
Demographic variables				
Race				
Black	1.00	1.00	1.00	1.00
Coloured	1.04 (0.7–1.6)	1.40 (0.8–2.3)	0.95 (0.6–1.5)	1.23 (0.8–1.9)
White	0.37 (0.2–0.8)	0.56 (0.2–1.3)	0.10 (0.0–0.3)	0.11 (0.0–0.4)***
Indian	1.22 (0.6–2.5)*	1.83 (0.8–4.0)	0.90 (0.4–1.8)***	1.34 (0.6–3.2)
Age				
18–34	2.21 (0.9–5.4)	1.77 (0.7–4.6)	2.32 (1.1–5.0)	1.94 (0.7–5.1)
35–49	1.90 (0.7–5.0)	1.52 (0.6–4.0)	1.82 (0.8–4.2)	1.59 (0.6–4.3)
50–64	1.70 (0.6–4.9)	1.34 (0.5–3.8)	1.42 (0.5–3.9)	1.16 (0.4–3.5)
65+	1.00	1.00	1.00**	1.00
Marital status				
Married	1.00	1.00	1.00	1.00
Cohabiting	1.50 (1.1–2.1)*	1.19 (0.8–1.8)	1.81 (1.2–2.8)**	1.17 (0.7–1.9)
Education				
None	2.46 (1.1–5.5)	2.62 (1.1–6.2)*	2.51 (1.2–5.5)	2.04 (0.8–4.9)
Grade 1–7	1.96 (1.0–3.7)	1.89 (1.0–3.6)*	2.34 (1.2–4.4)	1.90 (1.0–3.7)*
Grade 8–11	2.15 (1.2–3.7)	2.17 (1.3–3.5)**	2.33 (1.3–4.1)	1.78 (1.0–3.3)
Grade 12	1.75 (1.0–3.1)	1.63 (1.0–2.8)	1.41 (0.7–2.7)	1.02 (0.5–2.0)
Grade 13+	1.00	1.00	1.00**	1.00
Income				
0	1.92 (1.0–3.7)	1.43 (0.7–2.9)	2.01 (1.2–3.4)	1.31 (0.7–2.4)
1–500	1.44 (0.8–2.5)	1.07 (0.6–1.9)	1.93 (1.1–3.3)	1.34 (0.8–2.3)
1501–16500	1.16 (0.7–1.9)	0.84 (0.5–1.4)	1.18 (0.7–2.1)	0.85 (0.5–1.5)
16501–97500	1.05 (0.7–1.6)	0.94 (0.6–1.5)	0.91 (0.6–1.5)	0.79 (0.5–1.4)
97501+	1.00	1.00	1.00**	1.00
Employment				
Unemployed	1.08 (0.8–1.5)	0.74 (0.5–1.2)	1.26 (0.9–1.7)	0.90 (0.6–1.3)
Employed	1.00	1.00	1.00	1.00
Location				
Rural	1.00	1.00	1.00	1.00
Urban	0.69 (0.5–1.0)	0.67 (0.4–1.0)	0.84 (0.6–1.1)	1.06 (0.8–1.4)
Early life risk factors				
Childhood violence	3.08 (2.1–4.5)***	1.56 (1.0–2.5)*	3.96 (2.6–6.0)***	2.16 (1.4–3.4)***
Parental violence	3.34 (2.2–5.2)***	2.46 (1.4–4.2)***	3.82 (2.7–5.5)***	2.43 (1.6–3.6)***
Not close to PFC	1.94 (1.0–3.8)*	1.41 (0.6–3.1)	1.34 (0.7–2.5)	1.00 (0.5–2.1)

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	Perpetrator		Victim	
	OR	**AOR**	**OR**	**AOR**
Not close to PMC	1.70 (0.9–3.1)	1.03 (0.5–2.1)	2.49 (1.5–4.1)***	1.70 (1.0–3.0)
Disorders before age 20				
Alcohol abuse/dependence	6.96 (1.2–40.7)*	5.97 (1.0–34)*	3.59 (0.7–18.0)	2.49 (0.3–21)
IED	0.32 (0.1–1.6)	0.08 (0.0–0.7)*	2.61 (0.6–10.9)	0.80 (0.1–4.8)
Anxiety Disorder	1.36 (0.8–2.2)	0.79 (0.4–1.4)	1.83 (1.1–3.0)*	1.03 (0.5–1.9)
Mood Disorder	1.26 (0.6–2.7)	1.20 (0.5–2.8)	1.38 (0.6–3.0)	1.47 (0.7–3.3)
Adult risk factors				
Living children	1.36 (0.7–2.5)	1.50 (0.7–3.1)	0.94 (0.6–1.5)	0.91 (0.5–1.7)
Dead children	0.89 (0.6–1.3)	0.87 (0.5–1.4)	1.03 (0.7–1.4)	1.03 (0.7–1.5)
Disorders since age 20				
Alcohol abuse/dependence	4.35 (2.2–8.7)***	3.37 (1.7–6.8)***	4.99 (2.4–10.4)***	4.06 (1.6–10)**
IED	1.44 (0.5–4.1)	1.78 (0.6–5.3)	4.89 (1.9–12.8)***	4.03 (1.5–11)**
Anxiety Disorder	1.81 (1.3–2.6)**	1.46 (0.9–2.3)	2.19 (1.4–3.4)***	1.44 (0.8–2.6)
Mood Disorder	1.33 (0.9–2.0)	1.07 (0.6–1.8)	1.34 (0.9–2.0)	0.81 (0.5–1.4)

*(p-value ≤ .05),

**(p-value ≤ .01),

***(p-value ≤ .001)