

NIH Public Access

Author Manuscript

Violence Vict. Author manuscript; available in PMC 2011 August 25.

Published in final edited form as: Violence Vict. 2010 ; 25(3): 319–331.

Measurement and Correlates of Intimate Partner Violence Among Expectant First-Time Parents

Marni L. Kan and RTI International

Mark E. Feinberg Pennsylvania State University

Abstract

Research on the implications of varying measurement strategies for estimating levels and correlates of intimate partner violence (IPV) has been limited. This study explored measurement and correlates of IPV using a community sample of 168 couples who were expecting their first child. In line with prior research, couple agreement regarding the presence of violence was low, and maximum reported estimates revealed substantial IPV perpetrated by both expectant mothers and fathers. Different types of IPV scores predicted unique variance in mental health problems and couple relationship distress among both the whole sample and the subsamples who perpetrated any violence. Discussion focuses on the methodological and substantive implications of these findings for the study of IPV during the transition to parenthood.

Keywords

intimate partner violence; measurement; transition to parenthood; violence correlates

The transition to parenthood brings joy as well as new challenges to couple relationships (Cowan & Cowan, 1995; Feinberg, 2002), and cumulative stressors during this time may increase the likelihood of intimate partner violence (IPV; Jasinski, 2004). Violence during pregnancy poses physical risks to the mother and developing fetus (Jasinski, 2004). Moreover, both prenatal and postnatal violence can have negative implications for parenting, coparenting, and child development (Anderson & Cramer-Benjamin, 1999; Katz & Low, 2004). Thus, a thorough understanding of the risk factors associated with IPV prior to the transition to parenthood may help to inform prevention efforts. This is an important research direction because the prevention of violence before a child is born could have a positive impact on couple well-being and child outcomes over time (Cowan & Cowan, 1995; Feinberg, 2002).

Unfortunately, several challenges have impeded progress in understanding not only the factors associated with prenatal IPV, but also the level of IPV in the general population. First, studies of IPV among expectant parents have often employed selected high-risk samples, and most of these studies have relied on women's reports of victimization. In addition, studies have found that partners often do not agree about the extent of violence in their relationship, and variations in how IPV is measured may lead to discrepancies in reported rates of violence and associations of potential risk factors. Thus, this study had two

^{© 2010} Springer Publishing Company

Correspondence regarding this article should be directed to Marni L. Kan, RTI International, P.O. Box 12194, Research Triangle Park, NC 27709-2194. mkan@rti.org.

goals: (1) to examine the prevalence, frequency, and severity of IPV perpetrated by men and women in a community sample of expectant couples; and (2) to examine the extent to which different strategies for measuring IPV are uniquely associated with selected correlates, namely mental health problems and couple relationship distress.

Levels of Violence Among Expectant Parents

Some studies of pregnant women have shown substantial rates of IPV, yet other studies have reported much lower rates. Estimates of rates of violent victimization in the year prior to birth, including during pregnancy, have ranged from 1% to 34% (Cokkinides & Coker, 1998; Huth-Bocks, Levendosky, & Bogat, 2002; Jasinski, 2004; Martin, Mackie, Kupper, Buescher, & Moracco, 2001; Reichenheim & Moraes, 2004; Sagrestano, Carroll, Rodriguez, & Nuwayhid, 2004). Variation in these rates is likely a result of different samples, measures, and criteria for determining whether violence has occurred (Jasinski, 2004). Unfortunately, most previous research has provided an incomplete picture of IPV among expectant couples because it has focused on women's reports of victimization. Johnson (1995) proposes that there is a distinction between "common couple violence," which is mutually perpetrated in the context of conflict that gets out of hand, versus "intimate terrorism," which is systematically perpetrated by men for the purpose of controlling women. Given that common couple violence is likely to be the more prevalent type in the general population, a complete picture of IPV during the transition to parenthood would include reports of both perpetration and victimization.

This study is the first to investigate the extent of violence perpetrated by both men and women in expectant couples based on both partners' reports. The community sample we studied included couples who volunteered to participate in a prevention program for new parents; therefore, our assumption was that they would be more likely to exhibit common couple violence than intimate terrorism. Although rates of violence have varied widely in previous work with both high-risk clinic-based and nonclinic samples, studies of community samples of pregnant women or couples with children have reported rates of IPV between 32% and 44% (Gordis, Margolin, & Vickerman, 2005; Huth-Bocks et al., 2002; Slep & O'Leary, 2005). Therefore, we expected to find substantial rates of violence perpetrated by both partners in our sample.

Approaches to Measuring Violence

Given that partners often do not agree about violence in their relationship, one of the primary methodological challenges in the study of IPV is determining the validity of self-report data (Dobash & Dobash, 2004; Schafer, Caetano, & Clark, 2002; Szinovacz, 1983; Szinovacz & Egley, 1995). Although collecting data from both partners yields more accurate estimates of violence prevalence than collecting data from one partner (Schafer et al., 2002; Szinovacz, 1983; Szinovacz & Egley, 1995), doing so presents the additional problem of how to treat reports of violence that are not agreed upon by both partners. This issue has been addressed in prior work by creating maximum and minimum reported estimates of violence prevalence. The minimum estimate counts violence only when reported by both partners, whereas the maximum estimate includes all violence reported on by either or both partners. Given that partners may collude in denying the presence of violence, a maximum estimate may still be considered a conservative estimate (Heyman & Schlee, 1997; Szinovacz & Egley, 1995).

A second issue that arises in the measurement of IPV is determining which dimension of violence should be the focus of investigation. Researchers have used maximum measures of violence in estimating the prevalence, frequency, and severity of violence (Cano & Vivian, 2003; Gordis et al., 2005; Slep & O'Leary, 2005). However, these three estimates may

capture different dimensions of IPV and be related in different ways to risk factors and consequences.

Much of the work on IPV has employed the Conflict Tactics Scales (CTS), which can be scored to assess different facets of violence. Prevalence, frequency, and severity of violence are three of the primary CTS scores discussed by Straus (2004; Straus & Douglas, 2004; Straus, Hamby, Boney-McCoy, & Sugarman, 1996). The most common approach to measure IPV, which has been recommended by Straus and colleagues, has been to focus on prevalence, that is, using a dichotomous indicator of the presence of violence for any behaviors on the CTS or other scales (e.g., Gordis et al., 2005; Huth-Bocks et al., 2002; Schafer et al., 2002; Szinovacz, 1983). This strategy is limited in that it does not capture the experience of violence in terms of frequency or severity, which may vary widely among individuals who are categorized as violent (e.g., Dobash & Dobash, 2004). For instance, the same score for presence of violence could describe both a couple who experienced one isolated minor incident of shoving and a couple with a history of closed-fist punching that occurs on a regular basis.

Some studies have examined the frequency of IPV by summing or averaging reported frequency across behaviors (Cano & Vivian, 2003; Martin et al., 2004, 2006; Sagrestano et al., 2004; Slep & O'Leary 2005). This strategy may allow researchers to examine the extent to which violence is persistent and embedded in couples' lives and interactions. Nonetheless, Straus and colleagues (1996; Straus, 2004) have cautioned against using this approach with nonclinical samples because it often results in skewed distributions, with the majority of partners assigned a score of 0.

Researchers have also distinguished between levels of IPV severity, either by conducting separate analyses with couples exhibiting high versus low severity of violence (Slep & O'Leary, 2005) or by comparing couples who exhibit different levels of violence severity (Cano & Vivian, 2003). Although this strategy does not take the frequency of incidents into account, it may capture the level of impact that different violent behaviors have on victims. Straus and Douglas (2004) discussed the utility of distinguishing violence severity types, in which partners are categorized as exhibiting no violence, minor behaviors only, or severe behaviors. Straus (2004) also discussed the use of severity weights for frequency scores (i.e., creating a new score equal to frequency \times severity), which he recommended against because of exacerbated skewness and limited interpretability. Nonetheless, it may be useful to examine severity weights for the purpose of distinguishing the unique prediction of different approaches to scoring violence. Specifically, we chose to weight counts of violent acts by their severity in order to measure severity continuously.

It is important to acknowledge that none of these scores capture the meaning or context of violent events, which is essential to understanding their impact on individuals' and couples' health and well-being (e.g., Dobash & Dobash, 2004). Nonetheless, given that these measurement strategies are the most widely used in studies of IPV, it is important to learn whether one of these strategies will suffice, or whether it is useful to include multiple measurement approaches when examining links between IPV and individual and couple well-being. Although prior studies have found associations between different measures of IPV and well-being, no studies have examined the unique contributions of different scoring techniques. Despite this dearth of research, we expected scores that incorporated more information (i.e., severity and frequency) to predict individual and couple well-being beyond scores that included less information (e.g., prevalence and counts). This expectation, and our interest in comparing violence scores that were similarly discrete or continuous, served as a foundation for us to examine (1) the extent to which violence severity predicted relevant correlates above and beyond violence prevalence and (2) the extent to which violence

Correlates of Violence

We examined the associations of different types of violence scores with indicators of couple and individual well-being that have been associated with IPV in previous research. Numerous studies have demonstrated that violence presence and frequency are associated with relationship problems. For example, IPV has been linked to decreased relationship satisfaction, communication difficulties, high hostility and low warmth, and poor problem solving (Burman, Margolin, & John, 1993; Cano & Vivian, 2003; Gordis et al., 2005; Sagrestano et al., 2004; Szinovacz & Egley, 1995). This work led us to examine links between violence and couples' self-reports of their relationship distress, and we hypothesized that greater relationship distress would characterize more violent couples.

Moreover, presence and frequency of IPV has been linked to a host of individual psychological problems, including depression, alcohol and drug use, general aggression, and fear among victims (Bogat, Levendosky, & von Eye, 2005; Campbell, 2002; Cano & Vivian, 2003; Gordis et al., 2005; Johnson & Ferraro, 2000; Martin et al., 2006). Thus, we assessed mental health problems as a potential correlate of IPV.

To control for possible third-variable effects on violence and well-being, we controlled for education and income in all models predicting violence, as past work has shown that couples who have lower socioeconomic status tend to be at greater risk for IPV (e.g., Bogat et al., 2005; Cokkinides & Coker, 1998; Jasinski, 2004; Sagrestano et al., 2004). We expected socioeconomic status to be negatively related to IPV.

METHODS

Participants

Participants were 169 heterosexual couples that, at the time of recruitment, were expecting their first child, at least 18 years of age, and living together regardless of marital status. Participating couples resided in rural areas, towns, and small cities. Eighty-two percent of couples were married, and the majority of participants (91% of women and 90% of men) were non-Hispanic White. The remaining participants were non-Hispanic Black, non-Hispanic Asian, Hispanic, or other races. Median annual family income was US\$65,000.00 (SD = US\$34,372.79), with a range of US\$2,500.00 to US\$162,500.00. Average educational attainment was 15.06 years for women (SD = 1.82) and 14.51 years for men (SD = 2.19); 14.4% of women and 29.3% of men did not complete any college. Mean ages were 28.33 (SD = 4.93) years for women and 29.76 (SD = 5.58) years for men. Average gestational age was 22.9 weeks (SD = 5.3). The sample is generally representative of the racial and economic background of families from the regions where the data were collected, and is socioeconomically comparable to other community samples studied in IPV research (Cano & Vivian, 2003; Heyman & Schlee, 1997; Slep & O'Leary, 2005). One man reported very high levels of victimization on all violence items but no perpetration; his partner reported no perpetration or victimization. This couple was considered an extreme outlier and was removed from the analyses, yielding an analytic sample size of 168 couples.

Procedure

Couples were primarily (81%) recruited from childbirth education programs at two hospitals located in small cities. All other couples were recruited from doctors' offices or health centers (8%), by newspaper ads or flyers (7%), by word of mouth (3%), or by unknown means (including radio advertisement; 1%). Couples recruited from childbirth education

programs were sent a letter and then contacted by phone. Couples recruited through health centers returned a postcard, and all other couples called the program office if they were interested in participation. Of eligible couples contacted by phone, 23% agreed to participate; reasons for not participating were a lack of time, inability to attend evening sessions, and a perceived lack of need.

At recruitment, couples agreed to participate in a randomized study testing an intervention program for first-time parents. The program involved a series of pre- and postnatal classes for couples designed to enhance the coparental relationship, in turn improving parent mental health, the parent–child relationship, and infant and later child outcomes; the program is described in more detail in Feinberg and Kan (2008), and Feinberg, Kan, and Goslin (2009). Only baseline data are included in the present study.

Data were collected during home interviews. Human subjects procedures were reviewed, and couples were paid an honorarium. Expectant mothers and fathers separately completed questionnaires about aspects of their relationship as well as individual cognitions and adjustment.

Measures

Intimate Partner Violence—To measure violence in the couple relationship, we used the physical assault subscale of the Revised Conflict Tactics Scales (CTS2; Straus et al., 1996). Women and men completed eight items about their own behaviors perpetrated toward their partner and the same eight items about their partner's behavior toward themselves. Three of the eight items assess minor violence and five items assess severe violence (see Table 1). All items are on a seven-point scale ranging from *0 times* to *More than 20 times* in the past year, with the additional option of *Not in the past year, but it did happen before*.

Given the possibility of underreporting of violence and in order to simplify description and analysis of violence, we combined women's and men's reports of violence using the maximum estimate. Specifically, if either partner reported that a behavior had ever occurred, that behavior was considered to have occurred. We also used the highest frequency reported by either partner as the frequency for that behavior. Scores created from these data are referred to as "maximum reported" scores. Cronbach's alphas were .77 and .81 for prevalence and .92 and .76 for frequency for women's and men's behaviors, respectively.

Four types of past year violence scores were created for analysis (Straus, 2004). Prevalence of violence was a dichotomous score; if respondents indicated that any of the behaviors had happened in the past year, prevalence was coded 1; otherwise, it was coded 0. Violence severity type was a trichotomous variable: We coded each individual as perpetrating any severe violence, perpetrating minor violence only, or not violent. We assigned these types a 2, 1, or 0, respectively. Frequency of violence (referred to as chronicity among the subsample of partners who perpetrated any violence) was calculated by recoding each item score as the midpoint of the response category (e.g., 3–5 times per year was recoded as 4) and summing across items. Finally, severity-weighted violent behavior count scores were created by scoring 1 for prevalence of each minor item and 2 for prevalence of each severe item, and summing across all items. For each type of score, we calculated women's and men's violence perpetration separately.

Couple relationship distress included women's and men's reports of love (reversed; nine items; e.g., "How close do you feel toward your partner?"; $\alpha = .79$ for women and .78 for men) and conflict (five items, e.g., "How often do you feel angry or resentful toward your partner?"; $\alpha = .79$ for women and .73 for men) from the Marital Interactions Scale (Braiker & Kelley, 1979); ineffective arguing (eight items; e.g., "Our arguments are left hanging and

unresolved"; $\alpha = .88$ for women and .87 for men; Kurdek, 1994); and couple efficacy (seven items; e.g., "I have little control over the conflicts that occur between my partner and I"; $\alpha = .85$ for women and .76 for men; Fincham & Bradbury, 1987). These variables loaded on a single factor each for women and men in exploratory factor analyses; composite variables were created using standardized factor scores. Cronbach's alphas were .82 for women and . 78 for men for the composite measure.

Mental health problems included women's and men's ratings of depressive symptoms using a subset of seven items (e.g., "How often did you feel sad?") from the Center for Epidemiological Studies Depression Scale (CES-D; $\alpha = .84$ for women and .66 for men; Radloff, 1977); anxiety (e.g., "I am a high-strung person") from the 20-item short form of the Taylor Manifest Anxiety Scale (MAS; $\alpha = .77$ for women and .74 for men; Bendig, 1956); and hostility (e.g., "How much were you distressed by temper outbursts that you could not control?") using the six-item hostility subscale from the Symptom Checklist 90-Revised (SCL-90-R; $\alpha = .72$ for women and .81 for men; Derogatis & Cleary, 1977). These variables loaded on a single factor each for women and men in exploratory factor analyses; composite variables were created using standardized factor scores. Cronbach's alphas were . 77 for women and .69 for men for the composite measure.

Demographic Characteristics—Women's and men's years of education and reports of annual family income were significantly inter-correlated; these variables were combined using a factor score to create an index of socioeconomic status that was controlled in all analyses of correlates of violence. Cronbach's alpha for this index was .87.

RESULTS

Preliminary Analyses

To replicate prior work, which has found low levels of partner agreement about violence, we examined inter-partner agreement on the presence of violent behaviors. Percent agreement for each item was calculated among only those couples in which at least one member reported violence (see Szinovacz & Egley, 1995). Average percent agreement across the eight items was 14.4 (SD = 18.7) for women's behaviors and 26.3 (SD = 24.5) for men's behaviors.

Prevalence, Frequency, and Severity of Violence

Violence prevalence, frequency, severity, and severity-weighted counts were examined (see Table 1). A total of 29.8% of women and 17.3% of men perpetrated any violence in the past year (10.1% and 7.7% perpetrated severe violence), and women and men perpetrated 2.60 and 1.55 acts per year on average, respectively. Paired *t*-tests indicated that the proportion of violent women was significantly higher than the proportion of violent men for minor and any violence. Similarly, the frequency of women's perpetration of severe violence was significantly higher than men's perpetration (and marginally higher for minor and total violence), and severity-weighted counts were significantly higher for women's than for men's perpetration. Frequency and severity-weighted counts were significantly correlated between women and men. Couples in which both partners perpetrated any violence represented 49% of the subsample in which violence occurred.

As expected, the severity-weighted counts and frequency variables were highly skewed in the full sample. Skewness was 2.39 for women and 4.02 for men for severity-weighted counts and 4.69 for women and 5.23 for men for frequency. To address this problem, we truncated the severity-weighted count scores at 5 and the frequency scores at 30, which led to truncation of five severity-weighted count scores for women and three for men and four

frequency scores for women and one for men. The truncated chronicity (i.e., frequency) scores and severity-weighted counts were not substantially skewed among the subsamples of violent partners. To further reduce skewness of the chronicity variables, we used square-root transformations.

Associations Between Indicators of Violence and Couple and Individual Characteristics

Two sets of multivariate hierarchical regression analyses were conducted. In the first set of analyses, prevalence of women's and men's violence were entered in the first step, and severity types of women's and men's violence were entered in the second step of the regressions. In the second set of analyses with only the subsamples of partners who perpetrated any violence, severity-weighted counts of violence were entered first, and chronicity was entered second. Separate analyses were conducted for women's versus men's violence, but women's and men's reports of correlates were included as repeated measures in the same models. Correlates included mental health problems and couple relationship distress. The socioeconomic status index was entered as a control variable in all analyses.

As shown in Table 2, women's violence prevalence was significantly positively related to both partners' reports of mental health problems and couple relationship distress. Men's violence prevalence was significantly positively related to women's mental health problems and couple relationship distress among both partners. Severity of women's violence added to the prediction of women's mental health and to the prediction of couple distress for both partners above and beyond prevalence. Severity of men's violence significantly added to the prediction of men's reports of couple distress (and marginally to the prediction of men's mental health problems).

In the violent subsamples, women's severity-weighted count scores were marginally positively related to women's mental health problems and were significantly positively related to relationship distress among both partners. Men's severity weighted count scores were significantly positively related to men's relationship distress. Chronicity of women's violence added marginally to the prediction of women's mental health problems. Chronicity of men's violence added significantly to the prediction of women's mental health problems and marginally to the prediction of women's relationship distress.

DISCUSSION

Given that stress and conflict may be common during the transition to parenthood, and the consequences of violence may be particularly deleterious for couples and their children, it is important to examine the implications of different approaches to measuring violence in order to obtain consistent estimates of the levels of violence and to understand how different dimensions of IPV are associated with hypothesized correlates.

Levels of Violence

In accordance with prior research, we found that partners generally did not agree about the presence of violence in their relationship (Schafer et al., 2002; Szinovacz & Egley, 1995). Given the sensitive nature of questions about physical violence and the lack of agreement between partners, we used maximum reported estimates to describe violence (Schafer et al., 2002). The prevalence of violence in this sample was similar to that reported in other studies of community samples (e.g., Gordis et al., 2005; Huth-Bocks et al., 2002; Slep & O'Leary, 2005) and samples of pregnant women (e.g., Reichenheim & Moraes, 2004; Sagrestano et al., 2004) and substantiates concerns about IPV even among a sample of mostly middle-class expectant couples with stable relationships, who are typically considered to be at low risk for violence. Nearly one-fifth of men and one-third of women perpetrated violence in

the year prior to the interview, and during that time violent partners committed nine acts of violence on average. We note that our sample included only a small proportion of expectant parents who were not married, and unmarried women have reported higher levels of violence than married women during and around the time of pregnancy (Cokkinides & Coker, 1998; Huth-Bocks et al., 2002; Martin et al., 2001; Sagrestano et al., 2004). Moreover, it is impossible to know whether the violence reported to have taken place over the past year occurred during or prior to the pregnancy; this is also a limitation of other studies that have asked pregnant women about past year violence (e.g., Cokkinides & Coker, 1998). Studies have found, however, that most couples who experience violence prior to pregnancy are also violent during pregnancy, and vice versa (Martin et al., 2001). The finding that substantial violence was taking place in this sample around the period of family formation is important.

That women exhibited higher prevalence of minor violence than did men, whereas women and men perpetrated similar levels of severe violence, is consistent with previous research using community or national samples (Slep & O'Leary, 2005). In addition, the moderate correlations between women's and men's IPV frequency and the overlap between women's and men's perpetration suggest a high proportion of mutual violence in this sample and accord with the view that violence tends to co-occur within families (Slep & O'Leary, 2005). Given the rates and mutuality of violence, it is likely that most violence in this sample can be characterized as common couple violence (Johnson, 1995). It is possible that couples in which intimate terrorism occurred did not volunteer for the study or that both partners in such couples denied or minimized the presence of violence.

Implications of Different Measurement Strategies

Our examination of alternative violence scores suggests that presence, frequency, and severity of violence can all be useful indices of IPV and uniquely contribute to associations with mental health and couple relationship characteristics. Researchers may be able to increase the strength of associations observed between IPV and correlates of interest by including more than one facet of violence in their analyses (e.g., prevalence and severity). Given the limited variability of and information provided by categorical variables, it is often useful to utilize continuous variables such as frequency. Nonetheless, as Straus and colleagues (1996; Straus, 2004) highlight, the frequency and severity-weighted count variables were very skewed in our full community sample. Most partners were given a score of zero, and a few partners had high scores that would have likely driven associations with correlates. Truncation and/or transformation of these variables is often necessary to reduce skewness, but this strategy limits our ability to discern the implications of very high levels of violence. Even after truncation, the continuous variables were not appropriately distributed to analyze with our full sample. On the other hand, the significant associations we found between violence and hypothesized correlates in the violent subsamples suggest that truncating and transforming the variables was a useful approach to reducing skew that did not impede the analyses. This study illustrates the challenges that researchers face in making decisions about using measures of IPV that capture more information about violence versus measures that better lend themselves to correlational analytic approaches.

For the most part, our findings suggest that different measurement approaches may yield similar results in studies investigating correlates of IPV and varying scoring strategies may not be a reason for different results across studies. However, in the subsample of violent partners, violence chronicity predicted women's mental health problems whereas severity-weighted count scores predicted men's and women's relationship distress. The possibility that the use of different scoring approaches yields different associations with correlates of IPV warrants examination in future work.

The strong links that we found between violence and couple relationship distress are in line with prior research and our expectations (e.g., Burman et al., 1993; Cano & Vivian, 2003; Gordis et al., 2005; Sagrestano et al., 2004; Szinovacz & Egley, 1995), and add to the literature by demonstrating that such links hold for both partners' perpetration and perceptions of relationship quality among expectant couples. The associations between violence and mental health in this study were also consistent with our predictions and previous research (e.g., Bogat et al., 2005; Campbell, 2002; Cano & Vivian, 2003; Gordis et al., 2005; Johnson & Ferraro, 2000; Martin et al., 2006). That violence was more consistently related to mental health problems among women than among men in both the full and subsamples is consistent with prior work showing that violence, even when mutually perpetrated, tends to have stronger psychological implications for women than for men (Anderson, 2002; Beach et al., 2004). This finding is important because it suggests that gender symmetry in violent behavior, which characterizes common couple violence, does not necessarily imply symmetry in the sequelae of violence perpetration or victimization (Anderson, 2002). This cross-sectional study cannot lead to conclusions regarding the direction of effects, however, and future work should investigate the extent to which women are more negatively affected by mutual violence than men.

Limitations and Conclusions

This study relies on an act-based measure (the CTS) to assess violence. The CTS does not collect information regarding the context or meaning of violent acts, nor the sequence of acts between partners (Dobash & Dobash, 2004). A second limitation of this study is that the couples in this sample were mostly White, well-educated (although there was a wide range of education), married (although some were cohabiting), and expecting their first child. Although the sample reflected the racial and economic characteristics of the population in the study region, the results may not be generalizable to more diverse populations or to couples at different stages of family life. Finally, the focus of this study was on common couple violence in a community sample of couples who agreed to participate in an intervention program; couples experiencing the most severe violence may be less likely to volunteer for an intervention study, and it is possible that a study of a high-risk sample would yield different results.

This research explores methodological challenges in the study of IPV and the implications of these challenges for the examination of individual and couple-level correlates of IPV. It will be important in the future to collect data that maximizes information regarding characteristics of violence and to continue to evaluate the utility of different ways to measure IPV. Prior research suggests that such violence may lead to negative effects on the developing fetus (Jasinski, 2004) as well as on parents and parenting (Anderson & Cramer-Benjamin, 1999). Together, then, our substantive findings in combination with prior research highlight the need for, as well as potential targets of, prevention programs for couples implemented before the birth of a child.

Acknowledgments

We are grateful to the families who participated in this study. We thank Jesse Boring, Megan Goslin, Carmen Hamilton, Richard Puddy, Carolyn Ransford, and Samuel Sturgeon for their assistance in conducting this study. This study was funded by grants from the National Institute of Child Health and Development (1 K23 HD042575) and the National Institute of Mental Health (R21 MH064125-01), Mark E. Feinberg, principal investigator.

References

Anderson KL. Perpetrator or victim? Relationships between intimate partner violence and well-being. Journal of Marriage and Family. 2002; 64:851–863.

- Anderson SA, Cramer-Benjamin DB. The impact of couple violence on parenting and children: An overview and clinical implications. The American Journal of Family Therapy. 1999; 27:1–19.
- Beach SRH, Kim S, Cercone-Keeney J, Gupta M, Arias L, Brody GH. Physical aggression and depressive symptoms: Gender asymmetry in effects? Journal of Social and Personal Relationships. 2004; 21:341–360.
- Bendig AW. The development of a short form of the Manifest Anxiety Scale. Journal of Consulting Psychology. 1956; 20:384. [PubMed: 13367272]
- Bogat GA, Levendosky AA, von Eye A. The future of research on intimate partner violence: Personoriented and variable-oriented perspectives. American Journal of Community Psychology. 2005; 36:49–70. [PubMed: 16134044]
- Braiker, H.; Kelley, HH. Conflict in the development of close relationships. In: Burgess, RL.; Huston, TL., editors. Social exchange in developing relationships. New York: Academic Press; 1979. p. 135-168.
- Burman B, Margolin G, John RS. America's angriest home videos: Behavioral contingencies observed in home reenactments of marital conflict. Journal of Consulting and Clinical Psychology. 1993; 61:28–39. [PubMed: 8450105]
- Campbell JC. Health consequences of intimate partner violence. The Lancet. 2002; 359:1331-1336.
- Cano A, Vivian D. Are life stressors associated with marital violence? Journal of Family Psychology. 2003; 17:302–314. [PubMed: 14562455]
- Cokkinides VE, Coker AL. Experiencing physical violence during pregnancy: Prevalence and correlates. Family and Community Health. 1998; 20:19–37.
- Cowan CP, Cowan PA. Interventions to ease the transition to parenthood: Why they are needed and what they can do. Family Relations. 1995; 44:412–423.
- Derogatis LR, Cleary PA. Confirmation of the dimensional structure of the SCL-90: A study in construct validation. Journal of Clinical Psychology. 1977; 33:981–989.
- Dobash RP, Dobash RE. Violence to men in intimate relationships: Working on a puzzle. British Journal of Criminology. 2004; 44:324–349.
- Feinberg ME. Coparenting and the transition to parenthood: A framework for prevention. Clinical Child & Family Psychology Review. 2002; 5:173–195. [PubMed: 12240706]
- Feinberg ME, Kan ML. Establishing family foundations: Effects on coparenting, parent/infant wellbeing, and parent-child relations. Journal of Family Psychology. 2008; 22:253–263. [PubMed: 18410212]
- Feinberg ME, Kan ML, Goslin MC. Enhancing coparenting, parenting, and child self-regulation: Effects of family foundations 1 year after birth. Prevention Science. 2009; 10:276–285. [PubMed: 19381809]
- Fincham FD, Bradbury TN. Cognitive processes and conflict in close relationships: An attributionefficacy model. Journal of Personality and Social Psychology. 1987; 53:1106–1118. [PubMed: 3694451]
- Gordis EB, Margolin G, Vickerman K. Communication and frightening behavior among couples with past and recent histories of physical marital aggression. American Journal of Community Psychology. 2005; 36:177–191. [PubMed: 16134053]
- Heyman RE, Schlee KA. Toward a better estimate of the prevalence of partner abuse: Adjusting rates based on the sensitivity of the Conflict Tactics Scale. Journal of Family Psychology. 1997; 11:332–338.
- Huth-Bocks AC, Levendosky AA, Bogat GA. The effects of domestic violence during pregnancy on maternal and infant health. Violence and Victims. 2002; 17:169–185. [PubMed: 12033553]
- Jasinski JL. Pregnancy and domestic violence: A review of the literature. Trauma, Violence, and Abuse. 2004; 5:47–64.
- Johnson MP. Patriarchal terrorism and common couple violence: Two forms of violence against women. Journal of Marriage and the Family. 1995; 57:283–294.
- Johnson MP, Ferraro KJ. Research on domestic violence in the 1990s: Making distinctions. Journal of Marriage and the Family. 2000; 62:948–963.

- Katz LF, Low SM. Marital violence, co-parenting, and family-level processes in relation to children's adjustment. Journal of Family Psychology. 2004; 18:372–382. [PubMed: 15222844]
- Kurdek LA. Conflict resolution styles in gay, lesbian, heterosexual nonparent, and parent couples. Journal of Marriage and the Family. 1994; 56:705–722.
- Martin SL, Harris-Britt A, Li Y, Moracco KE, Kupper LL, Campbell JC. Changes in intimate partner violence during pregnancy. Journal of Family Violence. 2004; 19:201–210.
- Martin SL, Li Y, Casanueva C, Harris-Britt A, Kupper LL, Cloutier S. Intimate partner violence and women's depression before and during pregnancy. Violence Against Women. 2006; 12:221–239. [PubMed: 16456149]
- Martin SL, Mackie L, Kupper LL, Buescher PA, Moracco KE. Physical abuse of women before, during, and after pregnancy. Journal of the American Medical Association. 2001; 285:1581–1584. [PubMed: 11268265]
- Radloff LS. The CES-D Scale: A self-report depression scale for research in the general population. Applied Psychological Measurement. 1977; 1:385–401.
- Reichenheim ME, Moraes CL. Comparison between the abuse assessment screen and the revised conflict tactics scales for measuring physical violence during pregnancy. Journal of Epidemiological Community Health. 2004; 58:523–527.
- Sagrestano LM, Carroll D, Rodriguez AC, Nuwayhid B. Demographic, psychological, and relationship factors in domestic violence during pregnancy in a sample of low-income women of color. Psychology of Women Quarterly. 2004; 28:309–322.
- Schafer J, Caetano R, Clark CL. Agreement about violence in U.S. couples. Journal of Interpersonal Violence. 2002; 17:457–470.
- Slep AMS, O'Leary SG. Parent and partner violence in families with young children: Rates, patterns, and connections. Journal of Consulting and Clinical Psychology. 2005; 73:435–444. [PubMed: 15982141]
- Straus, MA. Scoring the CTS2 and CTSPC. 2004. Retrieved March 31, 2009, from http://pub-pages.unh.edu/~mas2/CTS28a3.pdf
- Straus MA, Douglas EM. A short form of the Revised Conflict Tactics Scales, and typologies for severity and mutuality. Violence and Victims. 2004; 19:507–520. [PubMed: 15844722]
- Straus MA, Hamby SL, Boney-McCoy S, Sugarman DB. The revised Conflict Tactics Scales (CTS2): Development and preliminary psychometric data. Journal of Family Issues. 1996; 17:283–316.
- Szinovacz ME. Using couple data as a methodological tool: The case of marital violence. Journal of Marriage and the Family. 1983; 45:633–644.
- Szinovacz ME, Egley LC. Comparing one-partner and couple data on sensitive marital behaviors: The case of marital violence. Journal of Marriage and the Family. 1995; 57:995–1010.

TABLE 1

Past Year Prevalence, Frequency, Severity, and Severity-Weighted Counts of Violence by Women and Men, Calculated as Highest Report by Either Reporter

	Past Year P	revalence	Past Year	Frequency	
	Women	Men	Women	Men	
	%	%	(QS)W	(QS)W	Inter-Partner Correlation
Minor					
1. Threw something that could hurt	21.4 ^a	10.7b	0.78 (2.72)	0.59 (2.85)	.35**
2. Twisted arm or hair	6.0	8.3	0.35 (2.31)	0.26 (1.32)	.64**
3. Pushed or shoved	21.4 ^a	11.9^{b}	1.05 (3.42) ^a	$0.54~(2.59)^{b}$.47**
Severe					
4. Used a knife or gun	0.6	0.6	0.01 (0.08)	0.01 (0.08)	01
5. Punched or hit with something that could hurt	8.9 <i>a</i>	3.6^{b}	$0.31 (1.52)^{d}$	$0.04 (0.19)^{b}$.30**
6. Choked	1.2	2.4	0.03 (0.32)	0.04 (0.33)	.27**
7. Slammed against wall	3.0	4.2	0.07 (0.47)	0.08 (0.42)	.21**
8. Beat up	0.0	0.6	0.0(0.0)	0.01 (0.08)	Ι
Any/Sum of minor items	29.2 ^a	17.3^{b}	2.18 (6.76)	1.38 (5.11)	.51**
Restricted sample			7.47 (10.88)	8.00 (10.05)	
Any/Sum of severe items	10.1	<i>T.T</i>	$0.42 (1.78)^{a}$	$0.17~(0.81)^{b}$.45**
Restricted sample			4.12 (4.12)	2.15 (2.12)	
Any item endorsed/Sum of all items	29.8 <i>a</i>	17.3^{b}	2.60 (8.03)	1.55 (5.61)	.51**
Restricted sample			8.72 (12.85)	8.97 (10.91)	
Severity types					
Severe violence	10.1	7.7			
Minor violence only	19.6	9.5			
No violence	70.2	82.7			
Severity-weighted counts			0.72 (1.42) ^a	$0.47 (1.28)^{b}$.67
Restricted sample			2.42 (1.63)	2.72 (1.83)	

Violence Vict. Author manuscript; available in PMC 2011 August 25.

Note. The restricted sample includes partners who had engaged in any violence (according to the maximum reported measure; Ns range from 13 to 50 across items).

NIH-PA Author Manuscript

 a,b Different subscripts within each row and score type represent significant gender differences in prevalence or frequency.

p < .01.	p < .05.	<i>p</i> < .10.
*	*	+-

Kan and Feinberg

TABLE 2

Women's and Men's Violence Scores Predicting Mental Health Problems and Couple Relationship Distress in the Full Sample and Subsamples of Violent Partners

	Woi	men	We	u	Wo	men	M	len
	β	ΔR^2	β	ΔR^2	ß	ΛR^2	ß	ΔR^2
^q ull sample analyses								
Women's violence								
Step 1: Prevalence	0.31	** 60.	0.23	.05**	0.45	.17**	0.37	.12**
Step 2: Severity type	0.40	.02*	0.21	.01	0.40	.02*	0.87	.11**
Men's violence								
Step 1: Prevalence	0.27	.06**	0.09	.01	0.47	.18**	0.45	.18**
Step 2: Severity type	0.28	.01	0.41	.02†	0.15	.001	0.58	.04**
subsample analyses								
Women's Violence								
Step 1: S-W Counts	0.27	.07†	0.11	.01	0.10	.11*	0.45	.38**
Step 2: Chronicity	0.38	.06†	-0.24	.02	0.10	.01	0.27	.02
Men's violence								
Step 1: S-W Counts	0.28	.07	0.31	60.	0.24	.04	0.47	.20*
Step 2: Chronicity	0.69	.22*	-0.08	.003	0.47	$.06^{\dagger}$	0.17	.01

Violence Vict. Author manuscript; available in PMC 2011 August 25.

in subsamples, n = 50 for women's violence and n = 29 for men's violence.

p < .01.p < .05. $r^{\dagger}_{p} < .10.$