May 2022

Cross-Day Associations Between Relational Factors and Intimate Partner Violence in Young Adult Couples

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CROSS-DAY ASSOCIATIONS BETWEEN RELATIONAL FACTORS AND INTIMATE PARTNER VIOLENCE IN YOUNG ADULT COUPLES

by

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A Thesis Submitted in

Partial Fulfillment of the

Requirements for the Degree of

Master of Science

in Psychology

at

The University of Wisconsin-Milwaukee

May 2022

ABSTRACT

CROSS-DAY ASSOCIATIONS BETWEEN RELATIONAL FACTORS AND INTIMATE PARTNER VIOLENCE IN YOUNG ADULT COUPLES

by

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The University of Wisconsin-Milwaukee, 2022
Under the Supervision of Professor Ryan Shorey

The prevalence of intimate partner violence (IPV) is alarmingly high, with young adults at increased risk, underscoring the importance of identifying risk factors for perpetration of IPV. IPV is largely understood as a dyadic process, as it involves both partners and is inherently influenced by the behaviors of both partners. Thus, it is important that research poised to better understand risk factors for IPV utilize young adult samples that include both dyad members. Previous research examining risk factors for IPV perpetration has identified multiple relational factors (i.e., relationship characteristics influenced by both partners) that impact risk. In particular, findings suggest lower relationship satisfaction and high levels of conflict are associated with higher levels of IPV. Yet, these relational factors are generally examined distally to IPV, leaving little existing research on how these factors affect proximal risk for IPV perpetration. Daily diary designs are well suited to address this gap, as they allow for the study of fluctuations in relational factors on a daily level, including the day prior and day of an act of IPV. As such, the present study used data consisting of young adult couples (N = 172 couples) who completed a 60-day daily-diary design to examine whether proximal relationship satisfaction and conflict increase risk for IPV perpetration. Results suggest that daily increases in one's own and one's partner's relationship satisfaction is associated with decreases in same-day and next-day psychological IPV. Conversely, daily increases in one's own and their partner's

conflict is associated with increases in same-day psychological IPV perpetration. In sum, results suggest relationship satisfaction and conflict may be proximal risk factors for IPV perpetration, particularly psychological IPV perpetration. Implications for intervention and future research are discussed.

Keywords: Intimate Partner Violence, Relationship Satisfaction, Conflict

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Cross-Day Associations between Relational Factors and Intimate Partner Violence in Young Adult Couples

The prevalence of intimate partner violence (IPV) is particularly concerning in young adult dating relationships (O'Leary, 1999; Renner & Whitney, 2010; Shorey et al., 2011; Straus, 2004, 2008), with approximately 80% experiencing psychological aggression (e.g., insulting partner, screaming at partner, treating partner as an inferior), 30% experiencing physical aggression (e.g., pushed, kicked, choked), and 20% experiencing sexual violence (e.g., insisting, making threats, or forcing a partner to engage in sexual activity) annually (Shorey et al., 2008). In addition, much research has demonstrated the significant mental health consequences of IPV. Specifically, IPV is associated with an increased risk for depressive symptoms (Caetano & Cunradi, 2003; White & Satyen, 2015), substance use (Carbone-López et al., 2006), suicide attempts (Castellvi et al., 2016), and developing a chronic disease (Coker et al., 2002). Furthermore, with the exception of sexual violence as perpetrated more often by men (Hines & Saudino, 2003), research has shown that men and women perpetrate psychological and physical IPV at similar rates (Cercone et al., 2005; Straus, 2008). Thus, physical and psychological IPV is most often bidirectional (i.e., both partners perpetrating). As most IPV is bidirectional in a dating relationship, and relationships are inherently interactional, this underscores the importance of including the experiences of both partners in the relationship to fully capture the dyadic process of IPV.

Given the prevalence of IPV, a robust body of literature has focused on risk factors for IPV perpetration, with increasing attention afforded to proximal risk factors for IPV perpetration. Proximal factors (i.e., those that occur in close proximity to IPV perpetration) may be more amenable to change compared to distal factors (i.e., those prior to, but not immediately preceding, IPV perpetration) and therefore more useful targets for intervention (Bell & Naugle,

2008). To study these factors, prior research has harnessed the benefits of intensive longitudinal designs. These methods, such as daily diary designs, involve repeated measurements over time to capture temporal associations in the variables of interest (Bolger & Laurenceau, 2013). However, much of the existing research using intensive longitudinal designs has focused on specific behavioral (e.g., substance use) rather than relational (e.g., relationship satisfaction) factors preceding IPV (Crane et al., 2014; Dardis et al., 2020; Testa et al., 2018; Testa & Derrick, 2014). Less research on relational factors is concerning as many relational factors have been shown to increase risk for IPV distally (Capaldi et al., 2012; Stith et al., 2004, 2008), leaving many questions regarding the potential for relational factors to constitute a proximal risk for IPV. Further, present research on relational factors examined cross-sectional or within-day associations, possibly missing important information about the time-course of relational factors prior to IPV perpetration (Capaldi et al., 2012; Stith et al., 2004, 2008). Overall, using daily diary designs to better understand how relational factors vary proximally to events of IPV (i.e., the day before and day of IPV) is critical for informing knowledge on risk factors for, and therefore intervention of, IPV perpetration.

Relational Factors

Conflict

One consistent relational risk factor for IPV perpetration is the occurrence of conflict within the relationship. In early work, researchers demonstrated that higher levels of conflict, and low levels of martial agreement, increased the likelihood of male-to-female perpetration of IPV (Aldarondo & Sugarman, 1996; Sugarman et al., 1996; Sugarman & Hotaling, 1989). Continuing work has used nationally representative samples and concluded that couples who had more frequent disagreements experienced higher levels of IPV (DeMaris et al., 2003). For instance, a

study among Chinese women found those who had reported “often” quarrelling with their husband were over seven times more likely to experience any IPV in their relationships (Tu & Lou, 2017). Furthermore, in a sample of various Latinx ethnic groups, the level of conflict in a relationship was shown to be the strongest and most stable risk factor for IPV, above other known risk factors (e.g., alcohol consumption, age, violence approval, violence in family of origin) (Aldarondo et al., 2002).

Further research in this area examined how various characteristics (e.g., age, gender) may impact conflict itself, as well as the association between conflict and IPV. For instance, prior research has shown that younger individuals (i.e., 20-39 years) used more confrontational strategies for conflict resolution (Bookwala et al., 2005), highlighting the importance of investigating conflict among young adult couples. Additional literature has examined whether there is gender symmetry in the ability for conflict to predict the occurrence and frequency of IPV (Marshall et al., 2011). Results showed that conflict within the relationship predicted the occurrence of IPV perpetration for men and women (Marshall et al., 2011). Yet, conflict only predicted frequency of IPV for women, but not men (Marshall et al., 2011). Authors proposed that this gender difference may be a function of women acting in self-defense (Marshall et al., 2011; Stuart et al., 2006), whereas men may perpetrate as a function of personal characteristics (e.g., hostility; Marshall et al., 2011). Regardless, there is evidence of gender asymmetry in the impact of conflict on IPV perpetration, thus underscoring the importance of a dyadic approach in the examination of couple conflict, especially among young adults.

Despite evidence for the association between conflict and IPV perpetration, very few studies have examined this risk factor longitudinally within intimate relationships. Moreover, these studies cannot address the question of whether daily conflict within a relationship directly

predicts the occurrence of IPV the next day. For instance, Ha and colleagues (2019) examined conflict and IPV in adolescent relationships using ecological momentary assessment (i.e., participants reported conflict twice weekly for twelve weeks). However, baseline scores of conflict and six-month follow up scores of IPV were used in analyses, rather than daily measurements. Nonetheless, results showed that perceptions of conflict at baseline among female partners predicted female and male IPV perpetration (Ha et al., 2019). Other relevant research has shown that conflict within a relationship is associated with same-day greater negative affect (Rogers et al., 2018). This is important, as negative affect is associated with a greater risk for IPV perpetration at the daily level (Crane & Eckhardt, 2013). Given this finding, it would be expected that daily conflict influences the occurrence of IPV. Yet, no study to date has directly examined whether conflict predicts same day and next day IPV perpetration.

Relationship Satisfaction

A second relational construct often investigated in research examining IPV is relationship satisfaction. For instance, a meta-analysis conducted on 32 articles showed a significant negative effect (r = -0.27) between relationship satisfaction and IPV perpetration (Stith et al., 2008). Thus, it is well documented that poor relationship satisfaction is a risk factor for IPV. Yet, much of the research included in this meta-analysis was cross-sectional, leaving much still unknown about the temporal association between relationship satisfaction and IPV. Moreover, relationship satisfaction has been minimally examined on a daily level as a predictor of IPV. The limited relevant research using daily diary designs have concluded that person-level decreases in relationship satisfaction was associated with day-level increases in physical IPV perpetration (Dardis et al., 2020). However, this study only examined within-day associations between relationship satisfaction and IPV perpetration, which is concerning given that relational factors

fluctuate frequently, especially relationship satisfaction (Arriaga, 2001). Furthermore, Dardis and colleagues (2020) only recruited one member of a couple in their sample. Therefore, research is warranted to dyadically examine how relationship satisfaction affects next day IPV perpetration, as well as same day IPV perpetration, to fully understand how it relates proximally to an event of IPV.

Theoretical Considerations

A central component of IPV is its interdependent nature. That is, both partners in a relationship impact the behavior of each other. This dynamic understanding of IPV is especially important when examining relational factors impacting risk of IPV, as partners often have discrepant perceptions. For example, partners often show discrepancy on reporting conflict (Derrick et al., 2014), events of IPV (Derrick et al., 2014), and relationship satisfaction (Marshall et al., 2011). Therefore, investigating relational factors within dating couples is fully accounted for by data that incorporates the perceptions and experiences of both dyad members. Bell and Naugle's (2008) *contextual framework for IPV* can be used as a guideline for the complex study of IPV through a dyadic lens.

More specifically, Bell and Naugle (2008) layout an integrative and cohesive conceptual framework for assessing contextual variables that may be proximally related to IPV. The *contextual framework for IPV* delineates several contextual units of analysis that may be combined to summarize risk for IPV. Critically, this model accommodates the dyadic nature of IPV, as it considers the roles of perpetration and victimization to be variable in relationships (Bell & Naugle, 2008). Furthermore, this model argues for further examination of proximal risk factors for IPV perpetration, as these factors may be more effective targets for prevention and intervention as compared to distal or static risk factors for IPV (Bell & Naugle, 2008). Given this

framework, the proposed study variables can be understood within the following contextual units of analysis: *Target behavior, antecedents, and motivating factors.*

Target behavior

The target behavior is defined as the problematic behavior of interest (Bell & Naugle, 2008), and is identified as IPV perpetration in the current proposal.

Antecedents

Antecedents are defined as stimuli or events that precede IPV and influence its likelihood to occur (Bell & Naugle, 2008). Both distal (i.e., occurring not close in time) and proximal (i.e., occurring close in time) antecedents have been identified in the literature, yet proximal antecedents are understood to have greater influence on the target behavior than distal antecedents (Bell & Naugle, 2008). Again, this underscores the importance of investigating proximal risk factors for IPV. For the current proposal, conflict is conceptualized as a proximal antecedent. Conflict is an established proximal risk factor for IPV (Capaldi et al., 2012). In fact, physical IPV has been shown to occur most often during an argument with a partner (Riggs & O'Leary, 1996). Thus, conflict can be understood as a proximal antecedent, as the presence of conflict in a relationship may immediately precede, and increase risk for, IPV.

Motivating factors

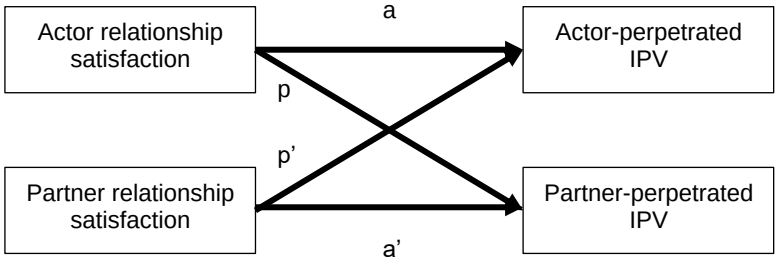
Within this conceptual framework, the motivating factors surrounding risk for IPV are defined as stimuli, events, or conditions that precede IPV and temporarily change the saliency of reinforcing or punishing outcomes of IPV behavior. In the interest of the current proposal, relationship satisfaction is conceptualized as a motivating factor. That is, the condition of being dissatisfied with the relationship may temporarily increase the likelihood that IPV will occur (Halmos et al., 2018), by way of increasing the potency of the consequences of IPV. For

instance, previous research has suggested that increased compliance from one's partner as a consequence of IPV may drive the choice to perpetrate (Myers, 1995; Olson & Lloyd, 2005). As such, the state of being dissatisfied with the relationship may increase the potency of achieving compliance from one's partner, thus increasing risk for IPV to occur.

Actor-Partner Interdependence Model

The present proposal will use the Actor-Partner Interdependence Model (APIM; Cook & Kenny, 2005; Kenny et al., 2006) to structure the investigation of relational factors surrounding acts of IPV (Figure 1). As IPV is a complex dyadic behavior, APIM provides structure to the analysis of dual-partner daily reports in a way that accounts for the interdependence of the outcomes of each dyad member (Cook & Kenny, 2005; Kenny et al., 2006). APIM has been used extensively to frame other studies examining risk factors for IPV (Low et al., 2016; Parrott et al., 2017), including those using daily diary methods (Crane et al., 2014; Testa & Derrick, 2014). This model labels the two individuals in the relationship as either an *actor* or a *partner*, and allows for the examination of the influence on perpetration from a person's own causal variable (i.e., *actor effect; a, a'*), as well as their partner's causal variable (i.e., *partner effect; p, p'*) (Kenny & Ledermann, 2010). Furthermore, if the strength of an actor's effect on perpetration is equal to the strength of the partner's effect on their perpetration, this is understood as a *couple effect* (i.e., $\frac{a}{p} = 1$). For instance, previous findings exemplifying a couple effect found that negative behaviors were affected by one's own attachment style and one's partner's attachment style (Campbell et al.,

Figure 1



2005). Finally, if that same pattern was found, but the direction of effect is opposite, this is defined as a *contrast effect* (i.e., $\frac{a}{p}$ = -1) (Kenny & Ledermann, 2010). For example, previous research has found that an actor doing housework increases their cortisol level, but a partner doing housework decreases an actor's cortisol level (Klumb et al., 2006).

Proposed Study

Rates of IPV are alarmingly high, especially among young adults. Existing research has demonstrated a link between relational factors and IPV, thus suggesting the importance of examining these constructs as risk factors for IPV perpetration. Accordingly, low relationship satisfaction and high levels of conflict in a relationship have emerged in the literature as potential proximal risk factors for IPV. Yet, previous research examining relational constructs as risk factors for IPV has predominantly used cross-sectional designs that preclude findings on how risk factors in the day immediately prior to acts of IPV impact risk for IPV perpetration the following day. To fill this gap, I examined how relational factors (i.e., relationship dissatisfaction and conflict) predicted same-day and next-day IPV perpetration (psychological, physical, and sexual) in young adults couples using a daily diary design. In all, findings from the proposed study capture the proximal influence of relational factors on IPV, providing critical information to inform existing conceptual frameworks of IPV (Bell & Naugle, 2008) and intervention efforts.

Study Aims

The following study aims were proposed based on the above research and theory:

Aim 1: To examine how relationship satisfaction and conflict within a dating relationship influence proximal risk for IPV perpetration.

Hypothesis 1a: On the day IPV perpetration occurs, higher relationship dissatisfaction and conflict in each dyad member will be associated with higher same-day risk of IPV perpetration.

Hypothesis 1b: On the day prior to IPV perpetration, higher relationship dissatisfaction and conflict in each dyad member will increase risk of IPV perpetration the next day.

Methods

Study Participants

The present thesis used pre-existing data comprising 181 couples (N = 362), recruited from Ohio University. Eligibility criteria included: (1) aged 18-25, (2) in a dating relationship that had lasted at least one month, (3) at least one member of the couple must have consumed alcohol in the prior 30 days, and the other must not have been a lifelong abstainer from alcohol, (4) have no children, (5) be exclusively dating, and (6) the couple must have had contact with each other at least 2 days a week. A change in eligibility criteria took place after 42 couples had completed the study protocol. At that time, graduate students were excluded from recruitment for the remainder of the study. Demographic information did not significantly differ between participants recruited before and after this change in eligibility criteria. Finally, couples were both heterosexual and non-heterosexual pairs and could be cohabitating.

To perform analyses on distinguishable dyads, nine same-gender couples were excluded from the analytic sample. Thus, the final sample is comprised of men (n = 172) and women (n = 172), and the average age was 19.78 (SD = 1.5). Most participants were undergraduate students (31.7% first year, 28.9% sophomore, 17.6% junior, 16.8% seniors, and 5.1% graduate or “other”). The sample of participants is predominantly White (91.0%) and not Hispanic or Latino (94.5%). Participants also reported being African American/Black (2.6%), Middle Eastern (0.6%),

American Indian or Alaskan Native (0.6%), Native Hawaiian or Other Pacific Islander (0.3%), and Multiracial (4.7%). Regarding sexual orientation, 92.4% of participants identified as heterosexual, 0.3% identified as gay, 0.3% identified as lesbian, 6.7% identified as bisexual, and one participant did not report. The average relationship length was 19.37 months (*SD* = 17.05), and most participants (89.0%) were not cohabitating with their partner.

Recruitment and Evaluation

Participants were recruited using the Psychology Experiment Sign-Up System at Ohio University, which connects students taking courses within the psychology department to opportunities to participate in research. In addition, recruitment flyers were posted around the Ohio University campus. If a couple was interested in participating, they were instructed to contact the research laboratory by phone or email, at which time they were screened for eligibility. Only one partner in the couple was screened for both members of the relationship. If the couple satisfied eligibility criteria, a baseline assessment was scheduled. At the start of the baseline assessment, couples were separated into individual offices, were reassessed for eligibility, and completed all baseline procedures separately, including consent procedures. Then, participants completed a battery of questionnaires and were trained on daily diary procedures. The baseline assessment took approximately 1.5 hours. Participants either received course credit or $20.00 for completing the baseline assessment.

Daily Diary Procedures

Participants completed a brief assessment (i.e., approximately 5 minutes in length) daily for 60 consecutive days, starting the day following the baseline assessment. Daily surveys were administered using surveymonkey.com. Participants received an email containing the link to the questionnaire at 6:00 a.m. daily. In addition, the participants received a second email prompt at

5:00 p.m. if they had yet to complete their daily survey. Questions on the daily survey assessed participant behavior the previous day, defined as the time they awoke to the time they went to sleep. Participants were instructed to complete the daily surveys away from their partner. When the study began, participants received $0.75 for each daily assessment they completed. After funding from NIH was received, compensation increased to $1.00 for each completed daily assessment. Analyses concluded that the increase in compensation did not significantly impact compliance rates (90% prior to funding and 85.1% after funding). Additionally, participants were provided a $5.00 bonus for each week of fully completed daily assessments. If participants completed over 70% of daily assessments, they were entered into a random drawing to win an extra $100.00.

Measures

Daily Measures

IPV. Participants completed a composite of items from the Revised Conflict Tactics Scales (Straus et al., 1996) and the Psychological Maltreatment of Women Inventory (Tolman, 1989) which assessed perpetration, victimization, or both by psychological, physical, or sexual violence during the previous day. This composite of items on IPV are consistent with prior daily diary research (Shorey et al., 2014; Testa & Derrick, 2014). In total, 9 items were included in the daily assessments, including five assessing psychological violence (e.g., "Threatened to hit or throw something at partner; insulted/swore at partner; blamed partner for own problems; monitored partner's time/whereabouts; interfered in partner's relationships with family members"), two assessing physical violence (i.e., "Grabbed, pushed/shoved, slapped, or threw something that could hurt at partner; kicked, choked, punched, beat up, slammed against a wall/door, burned/scalded on purposed, or used a knife/gun against partner"), and two assessing sexual

violence (i.e., “Insisted my partner have oral, vaginal, or anal sex when he/she did not want to but did not use physical force; forced my partner to have sex without a condom when he/she did not want to”). To respond, participants were instructed to select one of the following five response options: I did one or more of these things, my partner did one or more of these things, we both did one or more of these things and I did it first, we both did one or more of these things and my partner did it first, none of these things happened. Items for psychological IPV perpetration (i.e., 3 items), physical IPV perpetration (i.e., 2 items) and sexual IPV perpetration (i.e., 2 items) were summed to create three separate variables. That is, on each day for each participant, three separate summed variables for psychological, physical, and sexual IPV perpetration were coded to represent the number of IPV perpetration behaviors on that day, separated by type of IPV.

Relationship Satisfaction. Using a single item from the Relationship Assessment Scale (Hendrick, 1988), participants rated their overall relationship satisfaction for the previous day. The original measure includes seven items, and the one included item in the daily questionnaire asked, “Overall, how satisfied were you with your dating relationship yesterday (i.e., from the time you awoke until the time you went to bed)?” Participants were given the following response options along a 5-point Likert scale: “Not satisfied at all”, “pretty unsatisfied”, “neither satisfied nor unsatisfied”, “pretty satisfied”, “very satisfied.” Other daily diary studies have assessed relationship satisfaction daily using a single item (Dardis et al., 2020).

Conflict. Participants were asked a single item assessing the level of conflict/disagreement they experienced with their partner the previous day. The response options included: “None”, “some”, “average”, “slightly above average”, and “a lot.” Prior research utilizing daily diary designs have measured conflict in similar ways (Testa & Derrick, 2014).

Data Analysis

All analyses used SPSS 28 (IBM, 2021) and followed guidelines for multilevel modeling for dyadic intensive longitudinal data (Bolger & Laurenceau, 2013; Curran & Bauer, 2011) to examine whether relational factors (i.e., relationship satisfaction and conflict as independent variables) predict same-day and next-day IPV perpetration (i.e., dependent variable).

Preparing the Data

Distinguishable Dyads

Since the present sample consists of only heterosexual couples (N = 172), the man was assigned the actor role and the woman was assigned the partner role in the APIM framework. Dummy variables for gender were created such that a man had a "1" (i.e., yes) in the man dummy variable and a "0" (i.e., no) in the woman dummy variable, and vice versa for their partner (i.e., the woman).

Independent and Dependent Variables

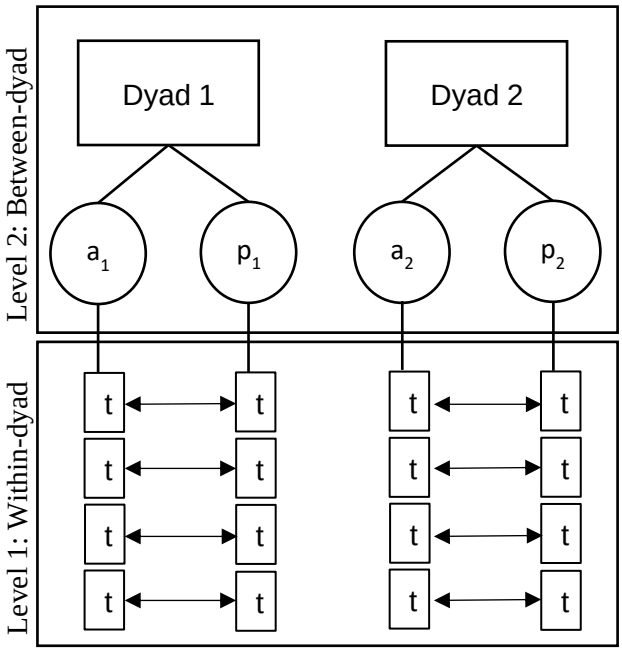
The independent variables of relationship satisfaction and conflict were disaggregated and structured in accordance with the APIM framework (Campbell & Kashy, 2002; Kenny et al., 2006; Laurenceau & Bolger, 2005; Raudenbush et al., 1995) to examine actor and partner effects. Next, 1-day lag variables for relationship satisfaction and conflict were created. The values of these lagged variables were equal to the level of relationship satisfaction or conflict at a time one day prior to the day in question. As described in further detail above, each participant had three perpetration variables for each day, denoting a sum of psychological IPV perpetration behaviors, physical IPV perpetration behaviors, and sexual IPV perpetration behaviors that day. These sum variables were assessed for skew and kurtosis, and analyses demonstrated that IPV perpetration variables were highly positively skewed and kurtotic. This is common in violence

research (e.g., Shorey et al., 2012). Thus, the summed outcome variable was transformed in two separate ways: log transformed, and square root transformed. After transformation, the IPV perpetration sum variables were examined again to determine skew and kurtosis. The square root transformation brought the distribution of the outcome variables closer to a normal distribution compared to the log transformation, and thus, the square root transformed summed variables were used as the outcome variable in all present models. Incongruence in reporting IPV between members of a couple is common (Derrick et al., 2014), and therefore was expected to occur in the present data. As the present study sought to investigate one's perceptions of relational constructs within their relationship, reports of IPV were not pooled between partners, consistent with prior research (Derrick et al., 2014).

Structure of the Multilevel Model

Two-level mixed linear models were specified. Consistent with prior recommendations (Bolger & Laurenceau, 2013), the three conceptual levels of dyadic intensive longitudinal data (1, within person; 2, within dyad; 3, between dyads) were expressed in a statistical model with two levels of analyses. This is due to the lack of variability at the middle level due to the role specification of each dyad member (i.e., actor and partner) (Bolger & Laurenceau, 2013). The two-level model is depicted in Figure 2 (Bolger &

Figure 2



Laurenceau, 2013). At level 1, it is possible, and likely, there was a within-couple correlation between outcomes for each partner for any given timepoint, as depicted by the double-ended arrow at level 1, because each member of the couple completed the surveys at the same timepoint (Bolger & Laurenceau, 2013).

The Present Models

IPV perpetration was the outcome in all models. Relationship satisfaction and conflict were examined in separate models of parallel structure, and the model for relationship satisfaction serves as an example here. Level 1 represented a multivariate system examining the effects on one's own perpetrated IPV. One day's actor perpetrated IPV was predicted from the man's relationship satisfaction on the prior day, the woman's relationship satisfaction on the prior day, and intercept terms that represent the average day level of the man and woman's relationship satisfaction (i.e., within-person effects). Level 2 represented a multivariate system (Bolger & Laurenceau, 2013) with one equation representing the effects on actor perpetrated IPV. This equation included the man's between-person level of relationship satisfaction, the woman's between-person level of relationship satisfaction and an error term representing the couple's deviation of relationship satisfaction compared to the level of relationship satisfaction in the sample (i.e., between-person effects). Time-invariant covariates that are related to IPV, such as the couple's relationship duration, were entered into level 2 as control variables.

This model structure was replicated to examine the effects of conflict on IPV perpetration (i.e., one model each for relationship satisfaction and conflict). The two models for relationship satisfaction and conflict were replicated three times to examine the effects of relational factors on one's own perpetration of psychological IPV, physical IPV, and sexual IPV. Then, these six models were replicated to examine contemporaneous (i.e., same day), rather than lagged, effects

on one's own perpetration of IPV. To do this, lagged variables (e.g., relationship satisfaction yesterday) were replaced with variables that represent same day predictors (e.g., relationship satisfaction today). The model of relationship satisfaction predicting next-day sexual IPV perpetration did not converge, and thus, was not interpretable. In total, eleven models were examined, and a Benjamini-Hochberg correction was employed to correct for Type 1 error (Benjamini & Hochberg, 1995; Benjamini & Yekutieli, 2001). All of the present findings remained significant following correction procedures.

Sample Size Determination

First, simulation of multilevel modeling studies was used to determine adequate sample size (Arend & Schäfer, 2019). The intraclass correlation (ICC) was determined for both relationship satisfaction (ICC = .34) and conflict (ICC = .14). Using results from sensitivity analyses (Arend & Schäfer, 2019) with a power equal to 0.80 and alpha level at 0.05, the minimum detectible effect sizes (MDES) given the present sample size were determined. Arend and Schäfer (2019) provide MDESs for sample sizes up to 30 at level 1 and 200 at level 2. As the present sample is larger (i.e., 60 days with 344 people), MDESs for a sample of 200 were used, recognizing the present sample was likely powered to detect an even smaller effect size. At level 1, the MDES for relationship satisfaction is 0.08. At level 2, the MDES for relationship satisfaction is .20. At level 1, the MDES for conflict is 0.08. At level 2, the MDES for relationship satisfaction is .23. Therefore, the present sample was suited to detect small effect sizes.

Second, the APIMPower program was used to calculate power as if the present analyses were cross sectional (Kenny & Ackerman, 2019). Given the current sample size (N = 172 couples) and assuming a moderate correlation (0.3) between actor and partner variables and a

moderate (0.3) correlation between errors, there is 84. power to detect an actor effect of size .17 and partner effect of size .17. However, the current analysis plan is longitudinal in nature, suggesting the present analyses have power to detect even smaller effect sizes.

Results

Descriptive Statistics

In the present sample, 760 acts of psychological IPV perpetration, 95 acts of physical IPV perpetration, and 53 acts of sexual IPV perpetration were reported in the present sample, among the 114 couples who reported any IPV during the sampling period. Across the sample, women reported more days of perpetrating psychological IPV (n = 313) compared to men (n = 186), as well as physical IPV compared to men (women n = 47, men n = 28). Men reported more days of perpetrating sexual IPV (n = 23) compared to women (n = 13). Across the 60-day sampling period, 62.2% of couples experienced psychological IPV perpetration, 21.5% experienced physical IPV perpetration, and 14.5% experienced sexual IPV perpetration in their relationship. In addition, women's rating of relationship satisfaction was moderate across the 60 days (M = 3.42, SD = 0.83), and was similar to ratings provided by men (M = 3.40, SD = 0.50). Similarly, daily conflict ratings were low across the 60 days and were similar between partners (men M = 0.50, SD = 0.88; women M = 0.52, SD = 0.88).

See Table 1 for full description of zero-order bivariate correlations. Results revealed a significant positive correlation between relationship length and seeing one's partner that day, reported conflict, psychological IPV perpetration, and physical IPV perpetration, and a significant negative correlation with sexual IPV perpetration. Analyses demonstrated a significant positive relationship between seeing one's partner on a given day and relationship satisfaction, and all three types of IPV perpetration. Further, there was a significant negative

correlation between relationship satisfaction and conflict, as well as daily psychological and physical IPV perpetration. In addition, results demonstrated that reported conflict was significantly positively correlated with daily psychological and physical IPV perpetration. Finally, results demonstrated significant positive correlations between psychological IPV perpetration, physical IPV perpetration, and sexual IPV perpetration.

Same-Day Associations

Relationship Satisfaction

See Table 2 for full same-day estimates of the association between relationship satisfaction and IPV perpetration.

Psychological IPV Perpetration. First, there were a number of significant within-person effects examining associations between relationship satisfaction and psychological IPV perpetration. A similar pattern for men and women was found where their own and their partner's relationship satisfaction was significantly associated with perpetration, such that an increase in relationship satisfaction, compared to one's average relationship satisfaction, decreased the risk for their own and their partner's psychological IPV perpetration. Between-person effects showed significant partner effects for men and women, such that an increase in relationship satisfaction for one's partner, compared to the sample average of relationship satisfaction, decreased risk for psychological IPV perpetration. Between-person actor effects were not significant predictors of same-day psychological IPV perpetration.

As would be expected, seeing one's partner on a given day was significantly associated with psychological IPV perpetration ($p < .001$). The main effects of gender on the risk for IPV perpetration were examined. Analyses indicated that identifying as a man and a woman was significantly associated with same-day psychological IPV perpetration (men $p < .013$, women p

< .001). Significant interaction effects (i.e., gender by time) showed that men and women's psychological IPV perpetration decreased over time (men $p < .001$, women $p < .001$).

Physical IPV Perpetration. Results revealed significant effects for women, but not men, whereby an increase in their own (i.e., women, $p = .007$) and their partner's (i.e., men, $p < .001$) relationship satisfaction, compared to their own and their partner's typical relationship satisfaction, decreased the risk for women's physical IPV perpetration. No significant between-person effects were found for physical IPV perpetration. Similar to psychological IPV, seeing one's partner on a given day was significantly associated with physical IPV perpetration ($p < .001$). The main effects of gender (i.e., man or woman) were not significantly associated with same-day risk of physical IPV perpetration. Significant interaction effects (i.e., gender by time) showed that men and women's physical IPV perpetration decreased over time (men $p = .001$, women $p < .001$).

Sexual IPV Perpetration. For within-person effects, a partner effect was revealed a women's relationship satisfaction, compared to their typical relationship satisfaction, was significantly and positively associated with men's sexual IPV perpetration the same day. Regarding between-person effects, a significant partner effect emerged where a decrease in women's relationship satisfaction, compared to the typical level of satisfaction in the sample, was significantly and negatively associated with men's sexual IPV perpetration the same day. Seeing one's partner on a given day was significantly associated with sexual ($p = .001$) IPV perpetration.

Conflict

See Table 3 for full same-day estimates of the association between conflict and IPV perpetration.

Psychological IPV Perpetration. There were a number of significant within-person effects examining associations between conflict and psychological IPV perpetration. Similar to relationship satisfaction, a pattern for men and women emerged where their own and their partner's conflict was significantly associated with psychological IPV perpetration, such that an increase in conflict, compared to one's average reported conflict, increased the risk for their own and their partner's psychological IPV perpetration that same day. Between-person effects revealed different patterns for men and women. For men, an actor effect was significant, such that an increase in men's reported conflict was significantly and positively associated with men's same-day psychological IPV perpetration. For women, a partner effect was significant, such that an increase in men's reported conflict, compared to the sample average of reported conflict, increased risk for women's psychological IPV perpetration that same day. The main effects of gender on the risk for psychological IPV perpetration did not reveal significant estimates. Significant interaction effects (i.e., gender by time) showed that men and women's psychological perpetration decreased over time (men $p = .001$, women $p = .019$).

Physical IPV Perpetration. Within-person results revealed significant effects for women, but not men, whereby an increase in their partner's conflict (i.e., man's conflict; $p < .001$) increased the risk for their own physical IPV perpetration the same day. No between-person effects were significantly associated with same-day physical IPV perpetration. The main effects of gender on the risk for IPV perpetration did not reveal significant estimates. Significant interaction effects (i.e., gender by time) showed that women's perpetration of physical IPV decreased over time ($p = .018$).

Sexual IPV Perpetration. No within-person or between-person effects of conflict were significantly associated with same-day sexual IPV perpetration. The main effects of gender on

the risk for IPV perpetration did not reveal significant estimates. Significant interaction effects (i.e., gender by time) showed that men's perpetration of sexual IPV decreased over time (p = .041).

Next-Day Associations

Relationship Satisfaction

See Table 4 for full next-day estimates of the association between relationship satisfaction and next-day IPV perpetration.

Psychological IPV Perpetration. There were a number of significant within-person effects examining associations between relationship satisfaction and psychological IPV perpetration. For men, a decrease in their partner's relationship satisfaction, compared to their partner's typical relationship satisfaction, increased the risk for their own psychological IPV perpetration the next day. Whereas for women, a decrease in their own and their partner's relationship satisfaction, compared to one's own typical relationship satisfaction, increased risk for women's next-day psychological IPV perpetration. Between-person effects showed partner effects for men and women, such that a decrease in one's partner's relationship satisfaction, compared to the sample average of relationship satisfaction, increased risk for next-day psychological IPV perpetration. The main effects of gender on the risk for next-day IPV perpetration revealed that identifying as a man or woman significantly predicted next-day psychological IPV. Finally, seeing one's partner the prior day predicted next-day psychological IPV.

Physical IPV Perpetration. No within-person or between-person effects were significantly associated with next-day physical IPV perpetration. The main effects of gender on

the risk for next-day IPV perpetration revealed that identifying as a man or woman significantly predicted next-day physical IPV (man $p < .001$, women $p < .001$).

Sexual IPV Perpetration. The final model for relationship satisfaction predicting next-day sexual IPV perpetration did not converge. Thus, results are not interpretable.

Conflict

See Table 5 for full next-day predictions of IPV perpetration.

Psychological IPV Perpetration. No within-person effects of conflict were significant predictors of next-day psychological IPV perpetration. Between-person effects for men revealed actor and partner effects, such that an increase in their own and their partner's reported conflict, compared to the sample average of reported conflict, increased risk for men's next-day psychological IPV perpetration. For women, a between-person partner effect was revealed, showing that an increase in men's reported conflict, compared to the sample average of reported conflict, increased risk for women's next-day psychological IPV perpetration. Gender did not predict next-day psychological IPV perpetration.

Physical IPV Perpetration. No within-person effects of conflict were significant predictors of and next-day physical IPV perpetration. A between-person partner effect emerged for women, such that an increase in men's reported conflict, compared to the sample average of reported conflict, increased risk for women's next-day physical IPV perpetration. No additional significant between-person effects were found for next-day physical IPV perpetration. Gender did not predict next-day physical IPV perpetration.

Sexual IPV Perpetration. No within-person or between-person effects of conflict were significant predictors of next-day sexual IPV perpetration. Finally, gender did not predict next-day sexual IPV perpetration.

Benjamini Hochberg Correction.

A Benjamini Hochberg correction was employed to correct for Type 1 error (Benjamini & Hochberg, 1995; Benjamini & Yekutieli, 2001). All of the aforementioned findings remained significant following correction procedures.

Discussion

Previous research has demonstrated that relational factors can constitute a distal risk for IPV (Capaldi et al., 2012; Stith et al., 2004, 2008). Indeed, higher levels of conflict has been shown to increase the likelihood of male and female IPV perpetration (Marshall et al., 2011). Further, it is well documented that poor relationship satisfaction is associated with increased risk for IPV perpetration (Stith et al., 2008). However, no current studies have investigated the dyadic daily associations between these relational factors (i.e., relationship satisfaction and conflict) and IPV perpetration. Thus, the present study sought to examine the same-day and next-day associations between relationship satisfaction, conflict, and IPV perpetration in young-adult couples. Results addressing the first hypothesis of the study (i.e., on the day IPV perpetration occurs, higher relationship dissatisfaction and conflict in each dyad member will be associated with higher same-day odds of IPV perpetration) demonstrated that for both men and women, one's own and their partner's daily relationship satisfaction was significantly and negatively associated with their own and their partner's psychological IPV perpetration the same day. That is, increases in reported relationship satisfaction from men and woman on a given day decreased risk for psychological IPV perpetration that same day. Conversely, increases in one's own and their partners conflict on a given day for men and women were associated with a greater risk of themselves and their partner perpetrating psychological IPV that same day. Findings from the present study extend previous findings demonstrating that distal relationship satisfaction and

conflict act as risk factors for IPV. Importantly, the present findings are the first to dyadically demonstrate the proximal associations between relational factors and IPV perpetration. Moreover, results provide support for Bell and Naugle's (2008) *contextual framework for IPV* by suggesting motivating factors (i.e., relationship satisfaction) and antecedents (i.e., conflict) increase proximal risk for IPV perpetration.

Furthermore, to address the study's second hypothesis (i.e., on the day prior to IPV perpetration, higher relationship dissatisfaction and conflict in each dyad member will increase odds of IPV perpetration the next day), findings indicated a series of next-day associations between relational factors and IPV perpetration. Regarding conflict, within-person variations in conflict did not predict perpetration of any type of IPV the next day for either men or women. For relationship satisfaction, results showed that for women, their own and their partner's relationship satisfaction on a given day predicted their own psychological IPV perpetration the next day. In addition, the women's rating of relationship satisfaction predicted a man's psychological IPV perpetration the next day. The cross-day results offer further support for Bell and Naugle's (2008) *contextual framework for IPV.* Results indicated that relationship satisfaction influences the risk of psychological IPV perpetration over the course of a couple days, especially if the woman is reporting worse relationship satisfaction compared to her typical level of relationship satisfaction. In the *contextual framework for IPV,* relationship satisfaction is conceptualized as a motivating factor, which are conditions that temporarily change the saliency of the outcomes of IPV. In the context of the present results, relationship satisfaction may act as a diffuse condition, the effects of which transverse a couple days. This contrasts with conflict that showed no within-person cross-day effects, suggesting some antecedents of IPV may be discrete with time-limited effects. Future research should examine potential reinforcing or

punishing outcomes of IPV behavior (e.g., partner compliance) and their association with relationship satisfaction to further support Bell and Naugle's (2008) framework.

Previous research has shown the association between poor relationship satisfaction and day-level increases in IPV perpetration (Dardis et al., 2020; Moore et al., 2011), but report conflicting results on psychological IPV perpetration in particular. Moore and colleagues (2011) showed a significant same-day association between relationship satisfaction and psychological IPV, but other studies have only found that relationship satisfaction presents a risk for physical IPV perpetration, not psychological IPV perpetration (Dardis et al., 2020). Mixed findings on the impact of relationship satisfaction could be due to the differences in other variables included in the analytic models (e.g., alcohol use, relationship investment model constructs; Dardis et al., 2020; Moore et al., 2011). However, previous studies did not recruit both members of a couple, leaving the possibility that the influence of relationship satisfaction on IPV perpetration may be different across members of the couple. The present results suggest that relationship satisfaction may be a particularly salient proximal risk factor for psychological IPV perpetration among women in heterosexual relationships, and that men are more likely to perpetrate psychological IPV when their partner is less satisfied in the relationship.

It is interesting to note the pattern of non-significant results pertaining to daily physical and sexual IPV perpetration. One possible explanation of these results is the fewer number of physical and sexual IPV events reported in the present sample, compared to psychological IPV events. As a result, the current study could have been underpowered to detect proximal risks of physical and sexual IPV. Another possible explanation of these results could be that relational factors do not constitute proximal risk for physical and sexual IPV. Instead, it may be that behavioral factors (e.g., substance use) or individual factors (e.g., anger) more strongly impact

risk for physical and sexual IPV perpetration. Indeed, prior research has demonstrated behavioral and individual factors increase proximal risk for physical and sexual IPV (Elkins et al., 2013; Shorey et al., 2014). Yet, these explanations are speculative, and further research using dyadic analyses should seek to explore why relationship satisfaction and conflict were not consistent proximal risk factors for physical and sexual IPV perpetration.

Prior research using intensive longitudinal designs to examine IPV have placed heavy emphasis on behavioral risk factors (e.g., substance use) rather than relational factors such as relationship satisfaction and conflict (Crane et al., 2014; Dardis et al., 2020; Testa et al., 2018; Testa & Derrick, 2014). This emphasis may be present to inform behavioral interventions and prevention programming for IPV. However, the present results highlight the importance of relational factors in the intervention and prevention of IPV, particularly psychological IPV. For example, risk-reduction programming aimed at preventing IPV should include conflict resolution strategies, especially among young adults who have been shown to use confrontational strategies for conflict resolution (Bookwala et al., 2005). Furthermore, it will be important for prevention programming to examine IPV perpetration outcomes as a function of change in conflict resolution techniques used by the couple. Such examinations will determine whether targeting conflict resolution has an impact on IPV perpetration over time. Regarding relationship satisfaction, it's important for practitioners, particularly those working with couples, to be aware of fluctuations in relationship satisfaction and its relative risk for psychological and physical IPV. Targeted exercises that are aimed at increasing the bond within couples should be utilized, particularly in times of stress when relationship satisfaction tends to decrease (Randall & Bodenmann, 2017).

Limitations

The current study has several limitations. First, nine same-gender couples were removed from the sample prior to analyses to allow for examinations among distinguishable dyads. Removal of these couples hinders the generalizability of the present results. This is an important limitation, as rates of IPV among sexual minority young adults is alarmingly high (see Edwards et al., 2015 for review) and further attention is needed to outline relational risk factors among sexual minority young adults. Further, the present sample is overwhelmingly White (91.0%) and not Hispanic or Latinx (94.5%), thus considerably limiting the ability to generalize the present findings among individuals of historically marginalized racial and ethnic backgrounds. In addition, though some patterns emerged predicting physical and sexual IPV perpetration, the frequency of physical and sexual IPV was considerably lower than that of psychological IPV perpetration. Particularly for sexual IPV perpetration, results should be interpreted with caution and future research with larger incidences of IPV perpetration is needed to replicate these findings. Still, psychological IPV is often reported as the most common form of IPV in young adult samples (e.g., Shorey et al., 2014, 2019). Furthermore, psychological IPV has detrimental impacts on individuals (Lagdon et al., 2014; Mechanic et al., 2008), with some research suggesting it has a greater impact on the development of PTSD compared to physical and sexual IPV victimization (Pico-Alfonso, 2005). Finally, the outcome variable in the present study is a transformed variable, which limits the translation of findings to real-world situations. Transformation was completed to approach a normal distribution of IPV perpetration so analyses would be robust in the face of skewed variables. Results should be considered preliminary, and caution should be practiced when translating these results to real-world situations.

Future Directions

The current study brings important contributions and suggests several directions for future research. First, it will be important to replicate findings on the effects of relationship satisfaction on psychological IPV given the mixed results in existing literature. Further, future research should explore why women's relationship satisfaction appears to be the most salient factor in men and women's psychological perpetration the next day. Such research should examine gender differences in the importance of relationship satisfaction as well as expected gender norms in heterosexual relationships. Second, future research should continue to explore the impact of relational factors on physical and sexual IPV perpetration given the relatively low incidence of physical and sexual IPV, compared to psychological IPV, in the present sample. Research with this aim could recruit couples that have experienced physical and/or sexual IPV in their relationship, which would likely increase the reported events of physical and sexual IPV perpetration over the 60-day diary period.

Conclusion

In sum, the present study was the first to dyadically study same-day and next-day associations between important relational factors such as relationship satisfaction and conflict, and IPV perpetration. Results demonstrated that ratings of relationship satisfaction and conflict for men and women significantly predict same-day psychological and physical IPV. Regarding next-day associations, women's relationship satisfaction seems especially salient towards the risk of both partners perpetrating psychological IPV the next day. Intervention and prevention programming should include information on conflict resolution strategies, as well as exercises that seek to improve relationship satisfaction over time. Future research is necessary to replicate these findings and explore gendered differences in romantic relationships that may explain the potency of women's relationship dissatisfaction on risk for psychological IPV perpetration.

Table 1

Zero-Order Correlations

	1	2	3	4	5	6	7	8	9	10
1. Time	-	<.001	-.09**	<.001	<.001	-.02**	-03**	-.05**	-.04**	-.03**
2. Relationship Length	-	-	.06**	<.001	<.001	-.01	.06**	.04**	.02**	-.01
3. Saw Partner[a]	-	-	-	-.01	.01	.22**	-.01	.04**	.03**	.02**
4. Man	-	-	-	-	-1.00**	-.02**	-.02	-.03**	-.01	.01
5. Woman	-	-	-	-	-	.02**	.02	.03**	.01	-.01
6. Relationship Satisfaction	-	-	-	-	-	-	.50**	-.18**	-.05**	-.01
7. Conflict	-	-	-	-	-	-	-	.33**	.09 **	.01
8. Psychological IPV Perpetration[b]	-	-	-	-	-	-	-	-	.37**	.26**
9. Physical IPV Perpetration[b]	-	-	-	-	-	-	-	-	-	.40**
10. Sexual IPV Perpetration[b]	-	-	-	-	-	-	-	-	-	-
Mean	-	19.37	-	-	-	3.40	0.50	0.02	0.00	0.00
Standard Deviation	-	17.05	-	-	-	0.84	0.88	0.15	0.06	0.04

Note: [a]Saw Partner = Dichotomous variable of whether person saw their partner that day. [b]This is a summed variable of daily IPV perpetration. *$p < .05$, **$p < .01$.

Table 2

Parameter Estimates for Dyadic Multilevel Model of Same-Day IPV Perpetration as a Function of Relationship Satisfaction for Man and Woman Dyad Partners

					CI_{95}	
Fixed Effects	**Estimate**	**S.E.**	***t***	***p*[a]**	**Lower**	**Upper**
Psychological IPV						
Relationship Length[b]	0.00	0.00	1.59	.113	0.00	0.00
Saw Partner[c]	0.03	0.00	7.38	<.001	0.03	0.04
Man	0.02	0.01	2.49	.013	0.00	0.04
Woman	0.04	0.01	4.29	<.001	0.02	0.05
Man						
Time	-0.00	0.00	-3.92	<.001	-0.00	-0.00
Actor Effect	-0.05	0.01	-5.95	<.001	-0.06	-0.03
Partner Effect	-0.02	0.01	-2.56	.011	-0.03	-0.00
Between-Person Actor Effect	-0.02	0.01	-1.49	.138	-0.05	0.01
Between-Person Partner Effect						
Woman						
Time	-0.00	0.00	-4.75	<.001	-0.00	-0.00
Actor Effect	-0.03	0.01	-4.12	<.001	-0.05	-0.02
Partner Effect	-0.06	0.01	-7.64	<.001	-0.07	-0.04
Between-Person Actor Effect	-0.00	0.01	0.34	.731	-0.02	0.03
Between-Person Partner Effect	-0.05	0.01	-3.47	<.001	-0.08	-0.02
Physical IPV						
Relationship Length[b]	0.00	0.00	0.993	.321	-0.00	0.00
Saw Partner[c]	0.01	0.00	5.00	<.001	0.01	0.01
Man	0.00	0.00	0.97	.331	-0.00	0.01
Woman	0.00	0.00	1.78	.075	-0.00	0.01
Man						
Time	-0.00	0.00	-3.29	.001	-0.00	-0.00
Actor Effect	-0.00	0.00	-1.32	.188	-0.01	0.00
Partner Effect	-0.00	0.00	-0.44	.661	-0.01	0.00
Between-Person Actor Effect	-0.00	0.00	-0.23	.817	-0.01	0.00
Between-Person Partner Effect	-0.00	0.00	-0.76	.448	-0.01	0.00
Woman						
Time	-0.00	0.00	-3.38	<.001	-0.00	-0.00
Actor Effect	-0.01	0.00	-2.72	.007	-0.01	-0.00
Partner Effect	-0.01	0.00	-3.36	<.001	-0.01	-0.00
Between-Person Actor Effect	-0.00	0.00	-1.45	.148	-0.01	0.00
Between-Person Partner Effect	0.00	0.00	0.42	.676	-0.01	0.01
Sexual IPV						
Relationship Length[b]	0.00	0.00	2.14	.033	0.00	0.00
Saw Partner[c]	0.00	0.00	3.51	<.001	0.00	0.01
Man	0.00	0.00	1.35	.178	-0.00	0.01
Woman	0.00	0.00	0.11	.915	-0.00	0.00
Man						
Time	0.00	0.00	-1.85	.064	-0.00	0.00
Actor Effect	-0.00	0.00	-1.41	.159	-0.00	0.00
Partner Effect	0.00	0.00	2.61	.009	0.00	0.01
Between-Person Actor Effect	-0.00	0.00	-0.49	.623	-0.01	-0.00

Between-Person Partner Effect	-0.01	0.00	-2.09	.037	-0.01	-0.00
Woman						
Time	-0.00	0.00	-1.52	.129	-0.00	0.00
Actor Effect	-0.00	0.00	-0.17	.863	-0.00	0.00
Partner Effect	-0.00	0.00	-0.62	.539	-0.00	0.00
Between-Person Actor Effect	-0.00	0.00	0.29	.771	-0.00	0.00
Between-Person Partner Effect	0.00	0.00	0.65	.516	-0.00	0.01

Note: N = 172 couples, 60 days
[a]All *p*-values are two-tailed.
[b]Relationship Length is grand-mean centered.
[c]Saw Partner = Dichotomous variable of whether person saw their partner that day.
[d]Between-Person Effect = Level-2 comparison to others in the sample.

Table 3

Parameter Estimates for Dyadic Multilevel Model of Same-Day IPV Perpetration as a Function of Conflict for Man and Woman Dyad Partners

					CI_{95}	
Fixed Effects	**Estimate**	**S.E.**	***t***	***p*[a]**	**Lower**	**Upper**
Psychological IPV						
Relationship Length[b]	0.00	0.00	0.92	.361	-0.00	0.00
Saw Partner[c]	0.01	0.12	0.11	.915	-0.22	0.25
Man	0.03	0.12	0.29	.774	-0.20	0.27
Woman	0.05	0.12	0.38	.702	-0.19	0.28
Man						
Time	-0.00	0.00	-3.25	.001	-0.00	-0.00
Actor Effect	0.04	0.01	5.11	<.001	0.02	0.05
Partner Effect	0.02	0.01	2.31	.021	0.00	0.03
Between-Person Actor Effect	0.05	0.02	2.97	.003	0.02	0.09
Between-Person Partner Effect	0.02	0.02	1.49	.137	-0.01	0.07
Woman						
Time	-0.00	0.00	-2.34	.019	-0.00	-0.00
Actor Effect	0.02	0.01	2.75	.006	0.01	0.04
Partner Effect	0.07	0.01	10.18	<.001	0.06	0.09
Between-Person Actor Effect	0.03	0.02	1.43	.152	-0.01	0.06
Between-Person Partner Effect	0.11	0.02	5.32	<.001	0.07	0.14
Physical IPV						
Relationship Length[b]	0.00	0.00	1.27	.204	-0.00	0.00
Saw Partner[c]	0.00	0.05	0.06	.950	-0.10	0.10
Man	0.00	0.05	0.09	.925	-0.10	0.10
Woman	0.01	0.05	0.16	.870	-0.10	0.11
Man						
Time	-0.00	0.00	-2.12	.034	-0.00	-0.00
Actor Effect	0.00	0.00	0.55	.580	-0.00	0.01
Partner Effect	0.00	0.00	1.26	.208	-0.00	0.01
Between-Person Actor Effect	0.00	0.01	0.87	.386	-0.00	0.02
Between-Person Partner Effect	-0.00	0.01	-0.15	.882	-0.01	0.01
Woman						
Time	-0.00	<0.001	-2.36	.018	-0.00	-0.00
Actor Effect	0.00	0.00	1.75	.080	-0.00	0.01
Partner Effect	0.01	0.00	5.12	<.001	0.01	0.02
Between-Person Actor Effect	0.01	0.00	0.49	.626	-0.00	0.01
Between-Person Partner Effect	0.01	0.01	1.25	.211	-0.00	0.02
Sexual IPV						
Relationship Length[b]	0.00	0.00	1.64	.102	-0.00	0.00
Saw Partner[c]	0.00	0.04	0.07	.946	-0.08	0.08
Man	0.01	0.04	0.13	.899	-0.08	0.09
Woman	0.00	0.04	0.03	.980	-0.08	0.08
Man						
Time	-0.00	0.00	-2.05	.041	-0.00	-0.00
Actor Effect	0.00	0.00	0.91	.362	-0.00	0.00
Partner Effect	-0.00	0.00	-1.23	.218	-0.00	0.00
Between-Person Actor Effect	0.00	0.00	0.39	.694	-0.01	0.01
Between-Person Partner Effect	0.01	0.00	1.32	.189	-0.00	0.01

Woman						
Time	-0.00	0.00	-1.32	.186	-0.00	-0.00
Actor Effect	-0.00	0.00	-0.06	.957	-0.00	0.00
Partner Effect	0.00	0.00	0.95	.340	-0.00	0.00
Between-Person Actor Effect	-0.00	0.00	-0.37	.711	-0.01	0.01
Between-Person Partner Effect	-0.00	0.00	-0.40	.691	-0.01	0.01

Note: N = 172 couples, 60 days
[a]All p-values are two-tailed.
[b]Relationship Length is grand-mean centered.
[c]Saw Partner = Dichotomous variable of whether person saw their partner that day.
[d]Between-Person Effect = Level-2 comparison to others in the sample.

Table 4

Parameter Estimates for Dyadic Multilevel Model of Next-Day IPV Perpetration as a Function of Relationship Satisfaction for Man and Woman Dyad Partners

					CI_{95}	
Fixed Effects	**Estimate**	**S.E.**	***t***	***p*[a]**	**Lower**	**Upper**
Psychological IPV						
Relationship Length[b]	0.00	0.00	0.93	.355	-0.00	0.00
Saw Partner[c]	0.01	0.00	2.60	.009	0.00	0.02
Man	0.04	0.01	4.78	<.001	0.02	0.05
Woman	0.05	0.01	6.34	<.001	0.03	0.06
Man						
Time	-0.00	0.00	-4.07	<.001	-0.00	-0.00
Actor Effect	-0.01	0.01	-1.66	.097	-0.03	0.00
Partner Effect	-0.02	0.01	-2.54	.011	-0.03	-0.00
Between-Person Actor Effect	-0.00	0.01	-0.42	.673	-0.03	0.02
Between-Person Partner Effect	-0.04	0.01	-2.75	.006	-0.06	-0.01
Woman						
Time	-0.00	0.00	-4.54	<.001	-0.00	-0.00
Actor Effect	-0.02	0.01	-2.38	.018	-0.03	-0.00
Partner Effect	-0.01	0.01	-2.22	.027	-0.03	-0.00
Between-Person Actor Effect	0.00	0.01	0.67	.497	-0.01	0.03
Between-Person Partner Effect	-0.04	0.01	-3.12	.002	-0.06	-0.01
Physical IPV						
Relationship Length[b]	0.00	0.00	1.57	.117	-0.00	0.00
Saw Partner[c]	-0.00	0.00	-0.20	.985	-0.00	0.00
Man	0.01	0.00	4.33	<.001	0.01	0.01
Woman	0.01	0.00	3.58	<.001	0.00	0.01
Man						
Time	-0.00	0.00	-4.06	<.001	-0.00	-0.00
Actor Effect	0.00	0.00	1.43	.152	-0.00	0.01
Partner Effect	-0.00	0.00	-1.26	.207	-0.01	0.00
Between-Person Actor Effect	0.00	0.00	0.17	.864	-0.00	0.00
Between-Person Partner Effect	-0.00	0.00	-1.31	.192	-0.01	0.00
Woman						
Time	-0.00	0.00	-2.36	.018	-0.00	-0.00
Actor Effect	-0.00	0.00	-0.21	.832	-0.00	0.00
Partner Effect	-0.00	0.00	-0.78	.436	-0.00	0.00
Between-Person Actor Effect	-0.00	0.00	-0.43	.669	-0.01	0.00
Between-Person Partner Effect	-0.00	0.00	-0.24	.815	-0.01	0.00

Note: N = 172 couples, 60 days

[a]All p-values are two-tailed.

[b]Relationship Length is grand-mean centered.

[c]Saw Partner = Dichotomous variable of whether person saw their partner that day.

[d]Between-Person Effect = Level-2 comparison to others in the sample.

Table 5

Parameter Estimates for Dyadic Multilevel Model of Next-Day IPV Perpetration as a Function of Conflict for Man and Woman Dyad Partners

					CI_{95}	
Fixed Effects	**Estimate**	**S.E.**	***t***	***p*[a]**	**Lower**	**Upper**
Psychological IPV						
Relationship Length[b]	0.00	0.00	0.48	.632	-0.00	0.00
Saw Partner[c]	0.02	0.13	0.14	.886	-0.24	0.28
Man	0.03	0.13	0.19	.853	-0.23	0.28
Woman	0.03	0.13	0.26	.798	-0.22	0.29
Man						
Time	-0.00	0.00	-2.81	.005	-0.00	-0.00
Actor Effect	0.01	0.01	1.13	.259	-0.01	0.02
Partner Effect	0.00	0.01	0.41	.684	-0.01	0.01
Between-Person Actor Effect	0.04	0.01	2.63	.009	0.01	0.07
Between-Person Partner Effect	0.04	0.02	2.67	.008	0.01	0.08
Woman						
Time	-0.00	0.00	-2.79	.005	-0.00	-0.00
Actor Effect	0.01	0.01	1.25	.211	-0.00	0.02
Partner Effect	0.01	0.01	0.89	.372	-0.01	0.02
Between-Person Actor Effect	0.02	0.01	1.48	.138	-0.01	0.05
Between-Person Partner Effect	0.09	0.02	5.50	<.001	0.06	0.12
Physical IPV						
Relationship Length[b]	0.00	0.00	1.26	.209	-0.00	0.00
Saw Partner[c]	0.00	0.05	0.06	.951	-0.09	0.10
Man	0.01	0.05	0.13	.894	-0.09	0.10
Woman	0.01	0.05	0.12	.903	-0.09	0.10
Man						
Time	-0.00	0.00	-3.40	<.001	-0.00	-0.00
Actor Effect	-0.00	0.00	-0.68	.498	-0.00	0.00
Partner Effect	0.00	0.00	1.02	.310	-0.00	0.01
Between-Person Actor Effect	0.00	0.00	0.75	.455	-0.00	0.01
Between-Person Partner Effect	0.00	0.00	0.79	.428	-0.01	0.01
Woman						
Time	-0.00	0.00	-2.37	.018	-0.00	-0.00
Actor Effect	0.00	0.00	0.70	.487	-0.00	0.00
Partner Effect	0.00	0.00	1.25	.213	-0.00	0.01
Between-Person Actor Effect	-0.00	0.00	-1.02	.310	-0.01	0.00
Between-Person Partner Effect	0.01	0.00	2.99	.003	0.00	0.02
Sexual IPV						
Relationship Length[b]	0.00	0.00	1.16	.246	-0.00	0.00
Saw Partner[c]	0.00	0.04	0.08	.937	-0.07	0.07
Man	0.00	0.04	0.11	.911	-0.07	0.08
Woman	0.00	0.04	0.18	.986	-0.07	0.07
Man						
Time	-0.00	0.00	-3.05	.002	-0.00	-0.00
Actor Effect	0.00	0.00	0.07	.947	-0.00	0.00
Partner Effect	0.00	0.00	0.31	.759	-0.00	0.00
Between-Person Actor Effect	0.00	0.00	0.55	.582	-0.00	0.01

Between-Person Partner Effect	0.00	0.00	0.63	.529	-0.00	0.00
Woman						
Time	-0.00	0.00	-1.69	.092	-0.00	0.00
Actor Effect	0.00	0.00	1.55	.121	-0.00	0.00
Partner Effect	-0.00	0.00	-1.58	.115	-0.00	0.00
Between-Person Actor Effect	0.00	0.00	-0.13	.898	-0.00	0.01
Between-Person Partner Effect	0.00	0.00	0.73	.466	-0.00	0.01

Note: N = 172 couples, 60 days
[a]All p-values are two-tailed.
[b]Relationship Length is grand-mean centered.
[c]Saw Partner = Dichotomous variable of whether person saw their partner that day.
[d]Between-Person Effect = Level-2 comparison to others in the sample.

References

Aldarondo, E., Kantor, G. K., & Jasinski, J. L. (2002). A Risk Marker Analysis of Wife Assault in Latino Families. *Violence Against Women*, *8*(4), 429–454. https://doi.org/10.1177/107780120200800403

Aldarondo, E., & Sugarman, D. B. (1996). Risk marker analysis of the cessation and persistence of wife assault. *Journal of Consulting and Clinical Psychology*, *64*(5), 1010–1019. https://doi.org/10.1037//0022-006x.64.5.1010

Arend, M. G., & Schäfer, T. (2019). Statistical power in two-level models: A tutorial based on Monte Carlo simulation. *Psychological Methods*, *24*(1), 1–19. https://doi.org/10.1037/met0000195

Arriaga, X. B. (2001). The ups and downs of dating: Fluctuations in satisfaction in newly formed romantic relationships. *Journal of Personality and Social Psychology*, *80*(5), 754–765. https://doi.org/10.1037//0022-3514.80.5.754

Bell, K. M., & Naugle, A. E. (2008). Intimate partner violence theoretical considerations: Moving towards a contextual framework. *Clinical Psychology Review*, *28*(7), 1096–1107. https://doi.org/10.1016/j.cpr.2008.03.003

Benjamini, Y., & Hochberg, Y. (1995). Controlling the False Discovery Rate: A Practical and Powerful Approach to Multiple Testing. *Journal of the Royal Statistical Society. Series B (Methodological)*, *57*(1), 289–300.

Benjamini, Y., & Yekutieli, D. (2001). The Control of the False Discovery Rate in Multiple Testing under Dependency. *The Annals of Statistics*, *29*(4), 1165–1188.

Bolger, N., & Laurenceau, J.-P. (2013). *Intensive longitudinal methods: An introduction to diary and experience sampling research*. Guilford Press.

Bookwala, J., Sobin, J., & Zdaniuk, B. (2005). Gender and Aggression in Marital Relationships: A Life-Span Perspective. *Sex Roles*, *52*(11–12), 797–806. http://dx.doi.org.ezproxy.lib.uwm.edu/10.1007/s11199-005-4200-1

Caetano, R., & Cunradi, C. (2003). Intimate partner violence and depression among Whites, Blacks, and Hispanics. *Annals of Epidemiology*, *13*(10), 661–665. https://doi.org/10.1016/j.annepidem.2003.09.002

Campbell, L., & Kashy, D. A. (2002). Estimating Actor, Partner, and Interaction Effects for Dyadic Data Using PROC MIXED and HLM: A User–Friendly Guide. *Personal Relationships*, *9*(3), 327–342. https://doi.org/10.1111/1475-6811.00023

Campbell, L., Simpson, J. A., Boldry, J., & Kashy, D. A. (2005). Perceptions of Conflict and Support in Romantic Relationships: The Role of Attachment Anxiety. *Journal of Personality and Social Psychology*, *88*(3), 510–531. https://doi.org/10.1037/0022-3514.88.3.510

Capaldi, D. M., Knoble, N. B., Shortt, J. W., & Kim, H. K. (2012). A Systematic Review of Risk Factors for Intimate Partner Violence. *Partner Abuse*, *3*(2), 231–280. https://doi.org/10.1891/1946-6560.3.2.231

Carbone-López, K., Kruttschnitt, C., & Macmillan, R. (2006). Patterns of Intimate Partner Violence and Their Associations with Physical Health, Psychological Distress, and Substance Use. *Public Health Reports*, *121*(4), 382–392. https://doi.org/10.1177/003335490612100406

Castellvi, P., Miranda-Mendizabal, A., Pares-Badell, O., Almenara, J., Alonso, I., Blasco, M., Cebrià, A., Gabilondo, A., Gili, M., Lagares-Franco, C., Piqueras, J., Roca, M., Rodríguez-Marín, J., Rodríguez-Jiménez, T., Soto, V., & Alonso, J. (2016). Exposure to

violence, a risk for suicide in youths and young adults. A meta-analysis of longitudinal studies. *Acta Psychiatrica Scandinavica*, *135*. https://doi.org/10.1111/acps.12679

Cercone, J. J., Beach, S. R. H., & Arias, I. (2005). Gender Symmetry in Dating Intimate Partner Violence: Does Similar Behavior Imply Similar Constructs? *Violence and Victims*, *20*(2), 207–218. https://doi.org/10.1891/vivi.2005.20.2.207

Coker, A. L., Davis, K. E., Arias, I., Desai, S., Sanderson, M., Brandt, H. M., & Smith, P. H. (2002). Physical and mental health effects of intimate partner violence for men and women. *American Journal of Preventive Medicine*, *23*(4), 260–268. https://doi.org/10.1016/s0749-3797(02)00514-7

Cook, W. L., & Kenny, D. A. (2005). The Actor-Partner Interdependence Model: A model of bidirectional effects in developmental studies. *International Journal of Behavioral Development*, *29*(2), 101–109. https://doi.org/10.1080/01650250444000405

Crane, C. A., Testa, M., Derrick, J. L., & Leonard, K. E. (2014). Daily Associations Among Self-control, Heavy Episodic Drinking, and Relationship Functioning: An Examination of Actor and Partner Effects. *Aggressive Behavior*, *40*(5), 440–450. https://doi.org/10.1002/ab.21533

Crane, C., & Eckhardt, C. (2013). Negative Affect, Alcohol Consumption, and Female-to-Male Intimate Partner Violence: A Daily Diary Investigation. *Partner Abuse*, *4*(3), 332–355. https://doi.org/10.1891/1946-6560.4.3.332

Curran, P. J., & Bauer, D. J. (2011). The Disaggregation of Within-Person and Between-Person Effects in Longitudinal Models of Change. *Annual Review of Psychology*, *62*(1), 583–619. https://doi.org/10.1146/annurev.psych.093008.100356

Dardis, C. M., Edwards, K. M., Kelley, E. L., & Gidycz, C. A. (2020). Exploring cross-day associations among intimate partner violence victimization, relationship investment, and perpetration among undergraduate men and women: A daily diary approach. *Psychology of Violence*, *10*(5), 552–563. https://doi.org/10.1037/vio0000293

DeMaris, A., Benson, M. L., Fox, G. L., Hill, T., & Wyk, J. V. (2003). Distal and Proximal Factors in Domestic Violence: A Test of an Integrated Model. *Journal of Marriage and Family*, *65*(3), 652–667. https://doi.org/10.1111/j.1741-3737.2003.00652.x

Derrick, J. L., Testa, M., & Leonard, K. E. (2014). Daily reports of intimate partner verbal aggression by self and partner: Short-term consequences and implications for measurement. *Psychology of Violence*, *4*(4), 416–431. https://doi.org/10.1037/a0037481

Edwards, K. M., Sylaska, K. M., & Neal, A. M. (2015). Intimate partner violence among sexual minority populations: A critical review of the literature and agenda for future research. *Psychology of Violence*, *5*(2), 112–121. https://doi.org/10.1037/a0038656

Elkins, S. R., Moore, T. M., McNulty, J. K., Kivisto, A. J., & Handsel, V. A. (2013). Electronic diary assessment of the temporal association between proximal anger and intimate partner violence perpetration. *Psychology of Violence*, *3*(1), 100–113. https://doi.org/10.1037/a0029927

Ha, T., Kim, H., & McGill, S. (2019). When Conflict Escalates into Intimate Partner Violence: The Delicate Nature of Observed Coercion in Adolescent Romantic Relationships. *Development and Psychopathology*, *31*(5), 1729–1739. https://doi.org/10.1017/S0954579419001007

Halmos, M. B., Leone, R. M., Parrott, D. J., & Eckhardt, C. I. (2018). Relationship Dissatisfaction, Emotion Regulation, and Physical Intimate Partner Aggression in Heavy-

Drinking, Conflict-Prone Couples: A Dyadic Analysis. *Journal of Interpersonal Violence*, 0886260518801019. https://doi.org/10.1177/0886260518801019

Hendrick, S. S. (1988). A Generic Measure of Relationship Satisfaction. *Journal of Marriage and Family*, *50*(1), 93–98. https://doi.org/10.2307/352430

Hines, D. A., & Saudino, K. J. (2003). Gender differences in psychological, physical, and sexual aggression among college students using the revised conflict tactics scales. *Violence and Victims*, *18*(2), 197–217. https://doi.org/10.1891/vivi.2003.18.2.197

IBM. (2021). *Statistical Package for the Social Sciences* (Version 25) [Computer software].

Kenny, D. A., & Ackerman, R. F. (n.d.). *APIM Power*.

Kenny, D. A., Kashy, D. A., & Cook, W. L. (2006). *Dyadic Data Analysis*. Guilford Publications.

Kenny, D. A., & Ledermann, T. (2010). Detecting, measuring, and testing dyadic patterns in the actor–partner interdependence model. *Journal of Family Psychology*, *24*(3), 359–366. https://doi.org/10.1037/a0019651

Klumb, P., Hoppmann, C., & Staats, M. (2006). Work Hours Affect Spouse's Cortisol Secretion—For Better And for Worse. *Psychosomatic Medicine*, *68*(5), 742–746. https://doi.org/10.1097/01.psy.0000233231.55482.ff

Lagdon, S., Armour, C., & Stringer, M. (2014). Adult experience of mental health outcomes as a result of intimate partner violence victimisation: A systematic review. *European Journal of Psychotraumatology*, *5*(1), 24794. https://doi.org/10.3402/ejpt.v5.24794

Laurenceau, J.-P., & Bolger, N. (2005). Using diary methods to study marital and family processes. *Journal of Family Psychology: JFP: Journal of the Division of Family*

Psychology of the American Psychological Association (Division 43), *19*(1), 86–97. https://doi.org/10.1037/0893-3200.19.1.86

Low, S., Tiberio, S., Shortt, J., Capaldi, D., & Eddy, J. (2016). Associations of Couples' Intimate Partner Violence in Young Adulthood and Substance Use: A Dyadic Approach. *Psychology of Violence*, *7*. https://doi.org/10.1037/vio0000038

Marshall, A. D., Jones, D. E., & Feinberg, M. E. (2011). Enduring Vulnerabilities, Relationship Attributions, and Couple Conflict: An Integrative Model of the Occurrence and Frequency of Intimate Partner Violence. *Journal of Family Psychology : JFP : Journal of the Division of Family Psychology of the American Psychological Association (Division 43)*, *25*(5), 709–718. https://doi.org/10.1037/a0025279

Marshall, A. D., Panuzio, J., Makin-Byrd, K. N., Taft, C. T., & Holtzworth-Munroe, A. (2011). A multilevel examination of interpartner intimate partner violence and psychological aggression reporting concordance. *Behavior Therapy*, *42*(3), 364–377. https://doi.org/10.1016/j.beth.2010.09.003

Mechanic, M. B., Weaver, T. L., & Resick, P. A. (2008). Mental Health Consequences of Intimate Partner Abuse: A Multidimensional Assessment of Four Different Forms of Abuse. *Violence Against Women*, *14*(6), 634–654. https://doi.org/10.1177/1077801208319283

Moore, T. M., Elkins, S. R., McNulty, J. K., Kivisto, A. J., & Handsel, V. A. (2011). Alcohol use and intimate partner violence perpetration among college students: Assessing the temporal association using electronic diary technology. *Psychology of Violence*, *1*(4), 315–328. https://doi.org/10.1037/a0025077

Myers, D. L. (1995). Eliminating the battering of women by men: Some considerations for behavior analysis. *Journal of Applied Behavior Analysis*, *28*(4), 493–507. https://doi.org/10.1901/jaba.1995.28-493

O'Leary, K. D. (1999). Developmental and Affective Issues in Assessing and Treating Partner Aggression. *Clinical Psychology: Science and Practice*, *6*(4), 400–414. https://doi.org/10.1093/clipsy.6.4.400

Olson, L. N., & Lloyd, S. A. (2005). "It Depends on What You Mean by Starting": An Exploration of How Women Define Initiation of Aggression and Their Motives for Behaving Aggressively. *Sex Roles*, *53*(7), 603–617. https://doi.org/10.1007/s11199-005-7145-5

Parrott, D. J., Swartout, K. M., Eckhardt, C. I., & Subramani, O. S. (2017). Deconstructing the Associations Between Executive Functioning, Problematic Alcohol Use, and Intimate Partner Aggression: A Dyadic Analysis. *Drug and Alcohol Review*, *36*(1), 88–96. https://doi.org/10.1111/dar.12454

Pico-Alfonso, M. A. (2005). Psychological intimate partner violence: The major predictor of posttraumatic stress disorder in abused women. *Neuroscience & Biobehavioral Reviews*, *29*(1), 181–193. https://doi.org/10.1016/j.neubiorev.2004.08.010

Randall, A. K., & Bodenmann, G. (2017). Stress and its associations with relationship satisfaction. *Current Opinion in Psychology*, *13*, 96–106. https://doi.org/10.1016/j.copsyc.2016.05.010

Raudenbush, S. W., Brennan, R. T., & Barnett, R. C. (1995). A multivariate hierarchical model for studying psychological change within married couples. *Journal of Family Psychology*, *9*(2), 161–174. https://doi.org/10.1037/0893-3200.9.2.161

Renner, L. M., & Whitney, S. D. (2010). Examining symmetry in intimate partner violence among young adults using socio-demographic characteristics. *Journal of Family Violence, 25*(2), 91–106. https://doi.org/10.1007/s10896-009-9273-0

Riggs, D. S., & O'Leary, K. D. (1996). The development of a model of courtship aggression. In M. A. Pirog-Good & J. E. Stets (Eds.), *Violence in dating relationships: Emerging social issues* (pp. 53–71). Praeger.

Rogers, A. A., Ha, T., Updegraff, K. A., & Iida, M. (2018). Adolescents' Daily Romantic Experiences and Negative Mood: A Dyadic, Intensive Longitudinal Study. *Journal of Youth and Adolescence*, *47*(7), 1517–1530. https://doi.org/10.1007/s10964-017-0797-y

Shorey, R. C., Brasfield, H., Febres, J., Cornelius, T. L., & Stuart, G. L. (2012). A comparison of three different scoring methods for self-report measures of psychological aggression in a sample of college females. *Violence and Victims*, *27*(6), 973–990. https://doi.org/10.1891/0886-6708.27.6.973

Shorey, R. C., Brasfield, H., Febres, J., & Stuart, G. L. (2011). An Examination of the Association between Difficulties with Emotion Regulation and Dating Violence Perpetration. *Journal of Aggression, Maltreatment & Trauma*, *20*(8), 870–885. https://doi.org/10.1080/10926771.2011.629342

Shorey, R. C., Cornelius, T. L., & Bell, K. M. (2008). A critical review of theoretical frameworks for dating violence: Comparing the dating and marital fields. *Aggression and Violent Behavior*, *13*(3), 185–194. https://doi.org/10.1016/j.avb.2008.03.003

Shorey, R. C., Fite, P. J., Torres, L., Stuart, G. L., & Temple, J. R. (2019). Bidirectional Associations between Acceptability of Violence and Intimate Partner Violence from

Adolescence to Young Adulthood. *Psychology of Violence*, *9*(1), 108–116. https://doi.org/10.1037/vio0000180

Shorey, R. C., Stuart, G. L., McNulty, J. K., & Moore, T. M. (2014). Acute Alcohol Use Temporally Increases the Odds of Male Perpetrated Dating Violence: A 90-Day Diary Analysis. *Addictive Behaviors*, *39*(1). https://doi.org/10.1016/j.addbeh.2013.10.025

Stith, S. M., Green, N. M., Smith, D. B., & Ward, D. B. (2008). Marital satisfaction and marital discord as risk markers for intimate partner violence: A meta-analytic review. *Journal of Family Violence*, *23*(3), 149–160. https://doi.org/10.1007/s10896-007-9137-4

Stith, S. M., Smith, D. B., Penn, C. E., Ward, D. B., & Tritt, D. (2004). Intimate partner physical abuse perpetration and victimization risk factors: A meta-analytic review. *Aggression and Violent Behavior*, *10*(1), 65–98.

Straus, M. A. (2004). Prevalence of Violence Against Dating Partners by Male and Female University Students Worldwide. *Violence Against Women*, *10*(7), 790–811. https://doi.org/10.1177/1077801204265552

Straus, M. A. (2008). Dominance and symmetry in partner violence by male and female university students in 32 nations. *Children and Youth Services Review*, *30*(3), 252–275. https://doi.org/10.1016/j.childyouth.2007.10.004

Straus, M. A., Hamby, S. L., Boney-McCoy, S., & Sugarman, D. B. (1996). The revised conflict tactics scales (CTS2) development and preliminary psychometric data. *Journal of Family Issues*, *17*(3), 283–316.

Stuart, G. L., Moore, T. M., Gordon, K. C., Hellmuth, J. C., Ramsey, S. E., & Kahler, C. W. (2006). Reasons for intimate partner violence perpetration among arrested women. *Violence Against Women*, *12*(7), 609–621. https://doi.org/10.1177/1077801206290173

Sugarman, D. B., Aldarondo, E., & Boney-McCoy, S. (1996). Risk marker analysis of husband-to-wife violence: A continuum of aggression. *Journal of Applied Social Psychology, 26*(4), 313–337. https://doi.org/10.1111/j.1559-1816.1996.tb01852.x

Sugarman, D., & Hotaling, G. (1989). Violent Men In Intimate Relationships: An Analysis of Risk Markers1. *Journal of Applied Social Psychology*, *19*, 1034–1048. https://doi.org/10.1111/j.1559-1816.1989.tb01237.x

Testa, M., & Derrick, J. L. (2014). A Daily Process Examination of the Temporal Association Between Alcohol Use and Verbal and Physical Aggression in Community Couples. *Psychology of Addictive Behaviors : Journal of the Society of Psychologists in Addictive Behaviors*, *28*(1), 127–138. https://doi.org/10.1037/a0032988

Testa, M., Derrick, J. L., Wang, W., Leonard, K. E., Kubiak, A., Brown, W. C., & Collins, R. L. (2018). Does Marijuana Contribute to Intimate Partner Aggression? Temporal Effects in a Community Sample of Marijuana-Using Couples. *Journal of Studies on Alcohol and Drugs*, *79*(3), 432–440. https://doi.org/10.15288/jsad.2018.79.432

Tolman, R. M. (1989). The development of a measure of psychological maltreatment of women by their male partners. *Violence and Victims*, *4*(3), 159–177.

Tu, X., & Lou, C. (2017). Risk factors associated with current intimate partner violence at individual and relationship levels: A cross-sectional study among married rural migrant women in Shanghai, China. *BMJ Open*, *7*(4), e012264. https://doi.org/10.1136/bmjopen-2016-012264

White, M. E., & Satyen, L. (2015). Cross-cultural differences in intimate partner violence and depression: A systematic review. *Aggression and Violent Behavior*, *24*, 120–130. https://doi.org/10.1016/j.avb.2015.05.005