

**The Moderating Effect of Impression Management on Dating Couples' Reporting
Concordance of Intimate Partner Violence**

A Thesis Presented for the
Master of Arts
Degree
The University of Tennessee, Knoxville

Heather Christine Zapor

August 2014

Copyright © 2014 by Heather Christine Zapor

All rights reserved.

Acknowledgements

My sincerest thanks to the Stuart Lab at the University of Tennessee for their support and guidance on this project. To Dr. Gregory L. Stuart, whose unwavering belief in his students is instrumental to our success and is forever appreciated. To my husband, family, and dearest friends whose presence by my side through every endeavor provides me with strength that is invaluable and enduring.

Abstract

Researchers examining intimate partner violence (IPV) typically collect only one member's report of both perpetration and victimization of violence. The research that has included both members' reports of IPV has consistently indicated low levels of agreement between partners on the presence of specific acts of violence. Impression management, which is a respondent's intentional attempt at projecting a positive self-image through minimization of negative aspects of oneself, may be one factor that is contributing to the low level of agreement between partners on the presence of violence. In the current study, both dyad members' reports of IPV were used to examine the overall level of agreement on reports of psychological and physical IPV and examined whether impression management moderated the level of agreement. Participants included 100 heterosexual dating couples ($N = 200$). Multilevel modeling demonstrated that the sample of dating college student couples typically agreed about the amount of physical and psychological aggression that occurred in their relationship, and that perpetrator impression management was negatively related to couple's mean level aggression. Overall, impression management was not related to couple concordance. Implications for future research and treatment are discussed.

Table of Contents

Chapter 1 Introduction and Literature Review	1
Chapter 2 Methods	7
Participants.....	7
Procedure	7
Measures	8
Demographic questionnaire.	8
Dating aggression.....	8
Impression management	8
Data Analytic Plan	9
Chapter 3 Results	12
Physical Aggression.....	12
Psychological Aggression.....	14
Chapter 4 Discussion	16
Clinical Implications.....	19
Limitations.....	19
Conclusions.....	20
List of References	21
Appendix.....	28
Table 1	29
Table 2	30
Table 3	31
Vita.....	32

Chapter 1

Introduction and Literature Review

Intimate partner violence (IPV), which includes acts of physical, psychological, or sexual violence, is a major social problem, particularly among college students, and has many far-reaching, detrimental consequences (Shorey, Cornelius, & Bell, 2008). Prior to Makepeace's (1981) seminal investigation, which revealed that one in five college students experienced violence in a dating relationship, much of the research on IPV focused on violence that occurred within marital relationships. However, recently there has been a significant increase in the amount of research examining the prevalence, predictors, risk factors, and negative consequences associated with dating violence (e.g., Chan et al., 2008; Eshelman & Levendosky, 2012; Shorey, Brasfield, Febres, & Stuart, 2011; Shorey et al., 2012).

One major limitation continually cited by researchers examining IPV among college students includes the manner in which it is measured. That is, researchers typically ask one partner to report on the number of aggressive behaviors in his or her relationship (i.e., the partner reports on both his/her perpetration and victimization). By only assessing one member of the dyad, researchers assume that individuals are capable of accurately capturing behaviors that occur within a dyad without collateral reports from the other partner (Armstrong, Wernke, Medina, & Schafer, 2002; Armstrong et al., 2001; Schafer, Caetano, & Clark, 2002). This assumption may lead researchers to draw inaccurate conclusions regarding the occurrence of IPV. In fact, the measurement of only one member's report of IPV has been identified by researchers as being a significant measurement deficit in the field (e.g., Armstrong et al., 2001; Barnett, Miller-Perrin, & Perrin, 2011; Lewis & Fremouw, 2001).

Despite repeated mention of the limitation of using only one partner's report of IPV, few researchers have included both members of the dyad in IPV research, particularly with dating couples. However, studies that have included both partners' reports, primarily with samples of clinical populations or married couples, have consistently demonstrated small to moderate amounts of agreement (kappa range = .26-.67) between couples regarding the amount of violence within a relationship (Armstrong, Wernke, Medina, & Schafer, 2002; Cunradi, Bersamin, & Ames, 2009; Heckert & Gondolf, 2000a; Langhinrichsen-Rohling & Vivian, 1994; Panuzio et al., 2006; Schafer et al., 1998; Testa, Quigley, & Leonard, 2003). Specifically, Simpson and Christensen (2005) found low to moderate agreement (kappa range = .29-.66) among married couples regarding both physical and psychological aggression, with both partners reporting experiencing more victimization than perpetration, especially for males. Additionally, Schafer and colleagues (2002) found that agreement between partners regarding physical violence was generally low (kappa range = .36-.39); however, higher rates of agreement were found when no violence was reported. Other studies have found similar results indicating that overall agreement is inflated when agreement about the nonoccurrence of violence is considered (Armstrong et al., 2002; Szinovacz & Egley, 1995). Testa and Derrick (2013) found that couples were only modestly good at reporting concordance of aggression using a daily diary study that assessed aggression that occurred during the previous day. Specifically, on days when violence was reported by at least one partner, percent agreement ranged from 13-27%.

Similar to the studies examining clinical samples and married couples, the few studies including both members of dating dyads has consistently shown that reports of instances of IPV between partners do not match. For instance, Perry and Fromuth (2005) examined the agreement of IPV reports in college dating couples and found that when only one partner's report was

considered, 60% of couples were considered physically violent. However, when both partners' reports were considered and had to match in order to be placed in the physically violent category, only 28% of the sample was considered violent. Hanley and O'Neill (1997) found similar results indicating that only 19% of dating couples were classified as violent when both partners' answers were considered; however, the number of couples considered violent increased to 33% when only considering one partner's report.

With little exception, studies that have examined agreement about violence have used percent agreement, the kappa statistic and Yule's Y. While these statistics all provide a means for establishing agreement, percent agreement does not account for agreement that could occur because of chance, and kappa and Yule's Y can be biased when base rates are skewed and low prevalence occurs (Bartko, 1991) which is often the case when examining violence data.

In an attempt to elucidate factors that may impact concordance rates of IPV among couples, researchers have examined both perpetrator/victim status and gender as possible explanations. Some research suggests that perpetrators are less likely to report their own violence when compared to their partner's report, however this relationship is stronger for male rather than female perpetrators (Archer, 2000; Perry & Fromuth, 2005; Szinovacz & Egley, 1995). Conversely, one study found that victims are more likely to underreport acts and their severity than perpetrators (Heckert & Gondolf, 2000a). Furthermore, others find that females report more violence overall regardless of perpetrator/victim status (Archer, 2000; Schafer, Caetano, & Clark, 2002; Testa & Derrick, 2013; Panuzio, et al., 2006). These inconsistent findings indicate that perpetrator/victim status and gender are not consistent or strong predictors of low concordance rates.

Additional research has examined other factors that may contribute to the low concordance of violence in dyads. Specifically, Marshall and colleagues (2011) examined the impact of relationship satisfaction on couple agreement about violence. Results indicated that relationship satisfaction was related to couple concordance about violence, such that individuals with high satisfaction reported less psychological aggression than the individual's partner reported, and individuals with low satisfaction reported more psychological aggression than the individual's partner reported. However, other research has found no link between relationship satisfaction and partner agreement about IPV (Panuzio et. al., 2006; Simpson & Christensen, 2005). Additionally, Heckert and Gondolf (2000b) found that for female victims having a minority racial/ethnic background, less education, and a relationship status of married all predicted underreporting of violence. Other factors that are related to low concordance include lower relationship adjustment and few positive feelings between partners (Panuzio, et al., 2006). Given these limited and mixed results, additional research is needed to further elucidate factors that may contribute to low couple agreement on IPV.

In the current study, impression management was examined as a potential predictor of the IPV concordance rates among couples. Impression management, also referred to as social desirability, is an individual's tendency to control the view of him- or herself by presenting a more favorable picture of oneself to his or her audience (Paulhus, 1984). Researchers have acknowledged the potential negative effects of social desirability on a self-report measure's validity for many years (e.g., Edwards, 1953; Meehl & Hathaway, 1946), which includes the minimization of several socially undesirable behaviors. For instance, several studies have linked high impression management to a decrease in reporting socially unacceptable behaviors such as alcohol use and harm (Davis, Thake, & Vilhena, 2010), criminal behavior (Davis, Thake, &

Weekes, 2012), antisocial attitudes (Mills & Kroner, 2006), and sexual attitudes and behaviors (Meston, Heiman, Trapnell, & Paulhus, 1998).

The results of several studies examining the impact of impression management on individual reports of IPV perpetration and victimization have failed to reach any definitive conclusions. Some studies have suggested the higher an individual scores on a measure of social desirability the less likely he or she is to report IPV perpetration (Arias & Beach, 1987; Dutton & Hemphill, 1992). Conversely, other studies have found little to no relationship between socially desirable responding and reports of IPV (Sugarman & Hotaling, 1997). Others have found that individuals are more likely to report aggression perpetrated by their partner than aggression they perpetrated, with social desirability more strongly correlated with reports of perpetration (Schafer, Caetano, & Clark, 2002; Sugarman & Hotaling, 1997).

Some researchers have considered the potential moderating effect of gender on socially desirable responding and reports of IPV. Sugarman and Hotaling, (1997) found that gender did not moderate the relationship between social desirability and IPV reporting. However, Bell and Naugle (2007) found that females' reports of social desirability were negatively correlated with their reports of perpetrating psychological aggression, physical assault, sexual coercion, and physical victimization, but not for males. Shorey, Cornelius, and Bell (2011) found social desirability to be negatively related to female college students' reports of physical and psychological perpetration and victimization, but also found these results for males. Thus, the existing research demonstrates social desirability impacts reports of IPV and that there may be potential gender differences in this relationship. It is therefore plausible that impression management may moderate and either increase or decrease the concordance of IPV among couples. It will also be important for research to examine potential gender differences in this

moderating relationship given the above discrepancies in the relationship between IPV and impression management.

Thus, the current study sought to address gaps in the literature by assessing both partners' self-reports of psychological and physical aggression victimization and perpetration and impression management in a sample of dating college student couples using multilevel modeling in order to account for the nested structure of the couple's level data. To my knowledge, this is the first study to examine dating couple concordance about aggression, and the moderating effect of impression management using the advanced statistics of multilevel modeling. Specifically, the aims of the present study were to (a) examine the level of agreement among couples regarding both psychological and physical aggression in their dating relationship, and (b) determine whether male or female impression management moderated the level of agreement between couples. Based upon existing research, it was hypothesized that couples would not agree about the amount of violence occurring within their relationship. Based on the small amount of inconclusive research on gender differences in impression management and reporting of IPV, no specific hypotheses were made regarding the impact of the reporting partners' gender on impression management and IPV concordance.

Chapter 2

Methods

Participants

A total of 100 heterosexual couples ($N = 200$), recruited from a large Southeastern University, in a dating relationship participated in the current study. The mean age of participants was 19.6 ($SD = 1.85$). Forty-six percent of participants were freshmen, followed by 23% sophomores, 15% juniors, 9.5% seniors, and 6.5% other. Ethnically, 84.0% identified as non-Hispanic Caucasian, 1.5% as African American, 7.0% as Asian American, 1.5% as Hispanic/Latino, 0.5% as Middle Eastern and 5.5% as two or more. Most couples (87.5%) reported that they were not currently living together and had been together an average of 1.4 years ($SD = 1.16$).

Procedure

Dating college student couples were recruited for the current study through psychology courses and flyers posted on campus at a large university located in the southeastern United States. Participants were required to be at least 18 years of age or older, in a dating relationship of one month or longer, and at least one member of the dyad had to be a student at the university. If both dyad members were not students at the university, the non-student partner was required to live within 100 miles of the university in order to be eligible. Eligible couples came to the laboratory and were separated, completed self-report questionnaires, and were then reunited to complete videotaped interactions (not discussed here). Each participant had the option to receive partial course credit ($n = 89$) or monetary compensation ($n = 111$). All procedures were approved by the Institutional Review Board of the first author's institution.

Measures

Demographic questionnaire. Participant age, gender, sexual orientation, academic status, ethnicity, cohabitation with current partner, and duration of current dating relationship were assessed with a demographic questionnaire.

Dating aggression. The Revised Conflict Tactics Scales (CTS2; Straus et al., 1996), a self-report measure, was used to examine dating violence perpetration and victimization. The CTS2 is the most widely used scale for assessing IPV. For the present study, only the physical assault and psychological aggression subscales were used. On the CTS2, participants indicate how many times they and their partner engaged in several physically and psychologically aggressive behaviors within their current relationship in the past year. Items were rated on a 7-point scale (0 = never; 1 = once; 2 = twice; 3 = 3-5 times; 4 = 6-10 times; 5 = 11-20 times; 6 = more than 20 times). Scores were obtained by taking the mid-point for each response (e.g., a response of “11-20 times” was scored as a frequency of 15 times), items were then summed to obtain a total score. Adequate reliability of the CTS2 has been demonstrated (Straus et al., 1996; Straus, Hamby, & Warren, 2003). For the current study, adequate internal consistency for the psychological aggression (perpetration, $\alpha = .68$; victimization, $\alpha = .71$) and physical assault (perpetration, $\alpha = .59$; victimization, $\alpha = .61$) subscales.

Impression management. The Impression Management subscale of the Balanced Inventory of Desirable Responding (BIDR-IM; Paulhus, 1991) was used to examine impression management. Participants rated 20 items on a 7-point likert scale ranging from 1 (not true) to 7 (very true). The BIDR-IM total score was calculated by first reverse scoring negatively keyed items and then adding the number of responses deemed “extreme” according to established cutoff scores. That is, each item rated a 6 or a 7 (see Paulhus, 1991) is coded as 1, and all others are coded as 0. Scores can range from 0 to 20, with higher scores indicating more impression

management. Paulhus (1991) reported adequate reliability and validity for the measure and its subscales. For the current study, the internal consistency of the Impression Management subscale was .71.

Data Analytic Plan

Given the nested structure of couple level data, multilevel modeling was used to examine (1) the agreement between couples on the overall frequency of psychological and physical aggression and (2) whether impression management moderated the level of agreement between couples for males and females separately. All models were estimated using HLM 6.08 (Raudenbush, Bryk, & Congdon, 2009). The model specified below was run separately for each form of aggression, resulting in a total of four models (i.e., female perpetrated psychological aggression; male perpetrated psychological aggression; female perpetrated physical aggression; male perpetrated physical aggression). The intraclass correlation coefficients (ICCs) for the male and female perpetrated physical aggression were .25 and .50, respectively, and the ICC values were .60 and .57 for male and female psychological aggression, respectively. All ICC values appear to indicate a nonignorable couple-level variance in reports aggression. Due to positive skew and kurtosis for aggression outcomes, a Poisson distribution was specified. A Poisson distribution expresses the probability of a certain number of events that occur during a specified interval of time or space for counted data, which is appropriate for aggression data (e.g., Gagnon, Doron-LaMarca, Bell, O'Farrell, & Taft, 2008). Because Poisson models utilize a natural logarithm link function, coefficient values are exponentiated (i.e., e^B) for interpretation. These exponentiated values, called rate-ratios, are similar to the interpretation of odds-ratios in logistic regression (i.e., for every one unit increase in the dependent variable the rate (or incidence) of the predictor variable increases by the specified rate ratio, when all other variables are held

constant in the model). For interpretation, all rate ratio effects were reversed forcing the rate ratios to be greater than one because rate ratios less than one are bounded by zero and difficult to compare (Osborne, 2006).

Specifically, the following Level-1 equation was estimated:

$$Y_{ij}(\text{Aggression}) = \beta_{0j} + \beta_{1j}(\text{Gender}) + r_{ij}$$

In this model, the outcome variable specified is the report of aggression made by partner i in couple j for the specific form of aggression being examined (e.g., male perpetrated physical aggression; female perpetrated physical aggression). β_{0j} indicates the mean aggression for couple j when $\beta_{1j}=0$. The gender variable was coded as -1 for females and 1 for males, thus the average aggression for the couple was provided when gender = 0. β_{1j} indicates the difference in reports of aggression between partners in the couple (couple concordance), such that a negative slope would indicate males report less aggression than females and a positive slope would indicate females report less violence than males. r_{ij} is the residual variance of Y or variance not accounted for by couple concordance.

Then, in the second level of the models, both male and female impression management (IM) scores were added to examine the extent to which IM explained between-couple variance in mean aggression and couple concordance, using the following level 2 equations:

$$\beta_{0j} = \gamma_{00} + \gamma_{01}(\text{Male IM}) + \gamma_{02}(\text{Female IM}) + u_{0j}$$

$$\beta_{1j} = \gamma_{10} + \gamma_{11}(\text{Male IM}) + \gamma_{12}(\text{Female IM}) + u_{1j}$$

Male and female impression management scores were grand mean centered. γ_{00} indicates the average amount of aggression for each couple at the sample's average male and female impression management scores; γ_{01} is the association between the average level of aggression and male impression management; γ_{02} is the association between the average level of

aggression and female impression management; u_{0j} is the variance in mean aggression not accounted for by male and female impression management; σ_{10} indicates couple concordance for each couple at the sample's average male and female impression management scores; σ_{11} is the association between couple concordance and male impression management; σ_{12} is the association between couple concordance and female impression management; and u_{1j} is the variance in couple concordance not accounted for by male and female impression management scores.

Chapter 3

Results

Bivariate correlations, means, and standard deviations for all variables are presented in Table 1. Means and standard deviations were derived from raw scores of all the measures. For the bivariate correlations, natural log transformations of the CTS2 scales were used in order to correct for positively skewed and kurtotic data. Psychological aggression and physical violence perpetration and victimization were all positively correlated with each other. Impression management was not significantly correlated with any aggression perpetration or victimization. Results demonstrated that 86% of the sample reported committing at least one act of psychological aggression and 32% reported committing at least one act of physical aggression. Further, results indicated that 83% of the sample reported being the victim of at least one act of psychological aggression and 31% reported being the victim of at least one act of physical aggression.

Physical Aggression

Results for physical aggression for both male and female perpetration are presented in Table 2. At Level 1, results for male perpetrated physical aggression indicated that, across couples, an average of 1.57 ($\beta = 0.45$) acts of aggression were reported. On average partners did not report significantly different levels of male perpetrated physical aggression ($e^B = 1.15$, $\beta = -0.14$, $SE = 0.15$). Level 2 analyses indicated that male impression management was significantly associated with couples' mean reports of male perpetrated physical aggression, such that higher male impression management scores were associated with less aggression ($e^B = 1.20$, $\beta = 0.18$, $SE = 0.04$, $t(99) = -4.41$, $p < .01$, 95% CI [1.10, 1.30]). Specifically, with each one-point decrease in male impression management score the odds of reporting physical aggression

increase by 20%. However, female impression management was not associated with couples' mean reports of aggression.

Further, results indicated that both male and female impression management scores were significantly associated with couple concordance (Male, $e^B = 1.09$, $\beta = 0.08$, $SE = 0.04$, $t(99) = 2.02$, $p < .05$, 95% CI [1.00, 1.18]; Female, ($e^B = 1.10$, $\beta = 0.10$, $SE = 0.04$, $t(99) = 2.39$, $p < .05$, 95% CI [1.02, 1.19]). This means that the effect of couple concordance varied as a function of male impression management. To better understand male impression management as a moderator, we tested the effect of male impression management on couple concordance at three different values for male impression management: 1 standard deviation below the mean (3.88), at the mean (7.21), and one standard deviation above the mean (10.54). Preacher, Curran, and Bauer (2006) refer to this approach as “simple slopes” analysis and have created an online interaction utility to complete the analysis. The effect of couple concordance was significantly different from zero for individuals that were at the mean male impression management ($e^B = 1.84$, $\beta = 0.61$, $p < .05$) and for individuals one standard deviation above the mean of male impression management ($e^B = 2.44$, $\beta = 0.89$, $p < .05$), but was not significant for individuals who were one standard deviation below the mean ($e^B = 1.39$, $\beta = 0.33$, $p = .08$). These results suggest that as male impression management increases there is less agreement about male perpetrated physical aggression among partners. Similarly, we tested the effect of female impression management on couple concordance at three different values for female impression management: 1 standard deviation below the mean (3.77), at the mean (7.01), and one standard deviation above the mean (10.25). The effect of couple concordance was significantly different from zero for individuals that were one standard deviation below the mean of female impression management ($e^B = 1.43$, $\beta = 0.36$, $p < .05$), at the mean female impression management ($e^B =$

1.95, $\beta = 0.67$, $p < .05$), and one standard deviation above the mean of female impression management ($e^B = 2.66$, $\beta = 0.98$, $p < .01$).

For female perpetrated physical aggression, Level 1 results showed that, across couples, an average of 3.11 ($\beta = 1.13$) acts of aggression were reported. On average partners did not report significantly different levels of female perpetrated physical aggression ($e^B = 1.07$, $\beta = 0.07$, $SE = 0.11$). At Level 2, analyses revealed that female impression management was significantly associated with couples' mean reports of female perpetrated physical aggression, such that higher female impression management scores were associated with less aggression ($e^B = 1.12$, $\beta = 0.11$, $SE = 0.05$, $t(99) = -2.64$, $p < .05$, 95% CI [1.03, 1.23]). Specifically, with each one-point decrease in female impression management score the odds of reporting physical aggression increase by 12%. No significant associations were found between couples' mean level report of aggression and male impression management, as well as no significant association between couple concordance and both male and female impression management.

Psychological Aggression

Results for male and female perpetrated psychological aggression are presented in Table 3. At Level 1, results for male perpetrated psychological aggression indicated that, across couples, an average of 10.58 ($\beta = 2.36$) acts of aggression were reported. The odds of reporting aggression decrease by 9% if the individual reporting on aggression is a male ($e^B = 1.10$, $\beta = 0.10$, $SE = 0.05$, $t(99) = -1.85$, $p = .07$, 95% CI [0.99, 1.22]). Level 2 analyses indicated that female impression management was significantly associated with couples' mean reports of male perpetrated psychological aggression, such that higher female impression management scores were associated with less aggression ($e^B = 1.11$, $\beta = 0.10$, $SE = 0.05$, $t(99) = -4.30$, $p < .01$, 95%

CI [1.06, 1.18]). Specifically, with each one-point decrease in female impression management score the odds of reporting psychological aggression increase by 11%. However, male impression management was not associated with couples' mean report of male perpetrated psychological aggression. No significant associations were found between couple concordance and both male and female impression management.

For female perpetrated psychological aggression, Level 1 results showed that, across couples, an average of 11.84 ($\beta = 2.47$) acts of aggression were reported. On average partners did not report significantly different levels of female perpetrated psychological aggression ($e^B = 1.09$, $\beta = 0.09$, $SE = 0.06$). At Level 2, analyses demonstrated that female impression management was significantly associated with couples' mean reports of female perpetrated psychological aggression, such that higher female impression management scores were associated with less aggression ($e^B = 1.12$, $\beta = 0.11$, $SE = 0.03$, $t(99) = -4.29$, $p < .05$, 95% CI [1.06, 1.17]). Specifically, with each one-point decrease in female impression management score the odds of reporting psychological aggression increase by 12%. No significant associations were found between couples' mean level report of female perpetrated psychological aggression and male impression management, as well as between couple concordance and both male and female impression management.

Chapter 4

Discussion

The current study examined the overall level of agreement between college student dating couples on physical and psychological aggression using both partners' reports of aggression, and examined whether impression management moderated the level of agreement. A notable strength of this study is the use of multilevel modeling, which accounts for the nested structure of couple-level data. This is the first study to examine couple concordance and the moderating impact of impression management with a dating college samples using multilevel modeling.

Contrary to the first hypothesis, which stated that agreement within couples about psychological and physical aggression would be low, results demonstrated that partners generally agreed about the frequency of aggression occurring within the relationship. The one exception to this was for male perpetrated psychological aggression, which demonstrated lower couple agreement. These results are inconsistent with previous research in college students (e.g., Hanley & O'Neill, 1997; Perry and Fromuth, 2005). Researchers in the field have cited assessing one partner's report of behaviors that occur within a dyad without collateral reports from the other partner as a measurement deficit (Armstrong et al., 2001; Barnett, Miller-Perrin, & Perrin, 2011; Lewis & Fremouw, 2001). However, this study suggests that assessing one partner's report of violence for male and female perpetrated physical aggression and female perpetrated psychological aggression may indeed provide a somewhat accurate depiction of what is occurring within the dyad.

Results regarding the frequency of male perpetration of psychological aggression demonstrated that partners' did not typically agree. These results are consistent with past research suggesting couple concordance is moderate to low (Testa & Derrick, 2013; Perry &

Fromuth, 2005). Because physical aggression occurs less frequently (Chan, Straus, Brownridge, Tiwari, & Leung, 2008; Bell & Naugle, 2007), episodes of physical aggression may be more salient in the memory of couples, as opposed to psychological aggression, for which a specific number of events might be harder to recall because psychological aggression occurs at a higher frequency than physical aggression.

The second aim examined whether male or female impression management moderated the level of agreement between couples. Results demonstrated that perpetrator impression management was negatively related to couples' mean report of both male and female physical aggression and couples' mean report of female perpetrated psychological aggression. Overall, impression management did not moderate the level of agreement between couples on the frequency of physical and psychological aggression; however, there was one exception, such that impression management moderated couple concordance for male perpetrated physical aggression.

For physical aggression, the findings indicated that impression management was negatively related to couples' mean report of physical aggression perpetration, such that couples' mean report of male perpetrated physical aggression was negatively related to male impression management and couples' mean report of female perpetrated physical aggression was negatively related to female impression management. A similar negative relationship was found between female perpetrated mean psychological aggression and female impression management. Male perpetrated mean psychological aggression was also negatively related to female impression management. Consistent with past research (Arias & Beach, 1987; Dutton & Hemphill, 1992; Shorey, Cornelius, and Bell, 2011), these findings suggest that both males and females are less likely to report their own physical violence perpetration and that females are less likely to report

their own psychological aggression perpetration, while males are less likely to report their own psychological aggression victimization. Thus, when assessing physical violence, researchers and clinicians should consider that reports of physical aggression may be suppressed due to perpetrator impression management, which may be due in large part to the negative societal views associated with physical violence. Additionally, male reports of psychological aggression victimization may be suppressed due to male impression management. Similar to physical aggression, this finding may be due to negative societal norms surrounding male victimization.

Overall, the findings did not support impression management as a moderator of couple concordance for physical violence or psychological aggression. Given that the results indicated that couples typically agreed about the frequency of violence within their relationship, it may be less likely that impression management will influence agreement because of the small amount variation in agreement among couples. However it is important to note that both male and female impression management were significant moderators for male perpetrated physical aggression concordance, such that higher impression management scores for males and females were related to less agreement among couples. Given that physical aggression perpetrated by males is less socially acceptable than that perpetrated by females (Bethke & DeJoy, 1993), impression management may be more likely to influence reports of this type of aggression. This highlights the importance of obtaining behavioral reports of aggression from partners. Additionally, future studies should examine whether couples that have similar impression management scores are more likely to agree about the occurrence of violence compared with couples who may be discordant regarding impression management (e.g., one member with high impression management and one with low).

Clinical Implications

These findings have important clinical implications regarding the assessment of the presence and level of aggression within a couple. Specifically, based on these findings, clinicians treating college students can expect that they will typically obtain a valid report of aggression when only meeting with one member of a dyad. However, clinicians should use caution when assessing for male perpetrated psychological aggression because couples were less likely to be in agreement. Additionally, the current study, in combination with previous research, highlights the importance of examining impression management when assessing the level of aggression within a couple. It is likely that perpetrators, regardless of gender, high in impression management may be likely to minimize the amount of aggression he or she is perpetrating. Thus, it may be helpful for clinicians to consider assessing for impression management when asking about the presence of aggression.

Limitations

The current results should be considered with several limitations in mind. First, the reliance on self-report measures may not fully capture the complex, multidimensional construct of violence or impression management. Future research that uses additional measures of violence, such as qualitative interviews, may be helpful. Moreover, with the recent recognition of psychological aggression occurring through various technologies (e.g., text messaging, email; Leisring & Giumetti, in press), future research should examine couple concordance of IPV occurrences through these technological vehicles. Additionally, given that couples came to the lab together, and although separated upon arrival, each member knew that his/her partner was completing the same survey and this may have impacted reports of violence. Additionally, the cross-sectional design of the current study precludes the examination of agreement on IPV

reports among couples over time, a notable limitation in the field. Future research should determine whether impression management moderates agreement between couples' reports of IPV over time. Finally, this study employed a sample of opposite sex, primarily non-Hispanic Caucasian college students, which limits the generalizability of findings to more ethnically diverse, same-sex, and non-college student couple samples. Additional research is needed that examines the agreement about violence and the association of impression management in a more diverse sample.

Conclusions

In summary, the current study contributes to and extends research on intimate partner violence (IPV) reporting concordance in college student dating relationships. Overall, results suggest that this sample of dating college student couples typically agree about the amount of physical and psychological aggression that occurs in their relationship. This suggests when researchers use one members' report of physical violence or psychological aggression in college samples, they may be likely to obtain a somewhat accurate picture of violence occurring within the couple. Additionally, these findings further highlight the importance of examining impression management, specifically among perpetrators, when studying IPV in college samples. Finally, in general the results did not indicate a relationship between couple concordance and impression management with the exception of male perpetrated physical aggression. Continued research on concordance between intimate partners on IPV is needed, specifically on factors that may influence the strength of the agreement between partners.

List of References

Archer, J. (2000). Sex differences in aggression between heterosexual partners: A meta-analytic review. *Psychological Bulletin*, 126(5), 651-680.

Arias I. & Beach, S. R. H. (1987). Validity of self-reports of marital violence. *Journal of Family Violence*, 2(2), 139-149.

Armstrong, T.G., Heideman, G., Corcoran, K.J., Fisher, B., Medina, K.L., & Schafer, J. (2001). Disagreement about the occurrence of male-to-female intimate partner violence: A qualitative study. *Family Community Health*, 24, 55-75.

Armstrong, T.G., Wenke, J.Y., Medina, K.L., & Schafer, J. (2002). Do partners agree about the occurrence of intimate partner violence?: A review of the current literature. *Trauma, Violence, and Abuse*, 3, 181-193.

Barnett, O.W., Miller-Perrin, C.L., & Perrin, R.D. (2011). Family violence across the life span. California: Sage Publications.

Bartko, J. J. (1991). Measurement and reliability: statistical thinking considerations. *Schizophrenia bulletin*, 17(3), 483-489.

Bell, K. M. & Naugle, A. E. (2007). Effects of social desirability on students' self-reporting of partner abuse perpetration and victimization. *Violence and Victims*, 22, 243-256.

Bethke, T. M., & DeJoy, D. M. (1993). An experimental study of factors influencing the acceptability of dating violence. *Journal of Interpersonal Violence*, 8(1), 36-51.

Chan, K.L., Straus, M.A., Brownridge, D.A., Tiwari, A., & Leung, W.C. (2008). Prevalence of dating partner violence among male and female university students worldwide. *Journal of Midwifery and Women's Health*, 53, 529-537.

- Cunradi, C.B., Bersamin, M., & Ames, G. (2009). Agreement on Intimate partner violence among a sample of blue-collar couples. *Journal of Interpersonal Violence*, 24, 551-568.
- Davis, C. G., Thake, J., & Vilhena, N. (2010). Social desirability biases in self-reported alcohol consumption and harms. *Addictive behaviors*, 35(4), 302-311.
- Davis, C. G., Thake, J., & Weekes, J. R. (2012). Impression managers: Nice guys or serious criminals?. *Journal of Research in Personality*, 46(1), 26-31.
- Dutton, D. G., & Hemphill, K. J. (1992). Patterns of socially desirable responding among perpetrators and victims of wife assault. *Violence and Victims*, 7(1), 29-39.
- Edwards, A. L. (1953). The relationship between the judged desirability of a trait and the probability that the trait will be endorsed. *Journal of Applied Psychology*, 37(2), 90-93.
- Eshelman, L. & Levendosky, A.A. (2012). Dating violence: Mental health consequences based on type of abuse. *Violence and Victims*, 27(2), 215-228.
- Follingstad, D.R., Wright, S., Lloyd, S., & Sebastian, J.A. (1991). Sex differences in motivations and effects in dating violence. *Family Relations*, 40, 51-57.
- Gagnon, D. R., Doron-LaMarca, S., Bell, M., O'Farrell, T. J., & Taft, C. T. (2008). Poisson regression for modeling count and frequency outcomes in trauma research. *Journal of Traumatic Stress*, 21(5), 448-454.
- Hanley, M.J. & O'Neill, P. (1997) Violence and commitment: A study of dating couples. *Journal of Interpersonal Violence*, 12, 685-703.

- Heckert, D.A., & Gondolf, E.W. (2000a). Assessing assault self-reports by batterer program participants and their partners. *Journal of Family Violence*, 2, 181-197.
- Heckert, D.A., & Gondolf, E.W. (2000b). Predictors of underreporting of male violence by batterer program participants and their partners. *Journal of Family Violence*, 15, 423-443.
- Langhinrichsen-Rohling, J. & Vivian, D. (1994). The correlates of spouses' incongruent reports of marital aggression. *Journal of Family Violence*, 9(3), 256-283.
- Leisring, P.A. & Giumetti, G.W. (in press). Sticks and stones may break my bones, but abusive text messages also hurt: Development and validation of the cyber psychological abuse (CPA) scale. *Partner Abuse*.
- Lewis, S.F. & Fremouw, W. (2001). Dating violence: A critical review of the literature. *Clinical Psychology Review*, 21(1), 105-127.
- Makepeace, J.M. (1981) Courtship violence among college students. *Family Relations*, 30, 97-102.
- 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, 364-377.
- Meehl, P. E., & Hathaway, S. R. (1946). The K factor as a suppressor variable in the Minnesota Multiphasic Personality Inventory. *Journal of Applied Psychology*, 30(5), 525-564.
- Meston, C. M., Heiman, J. R., Trapnell, P. D., & Paulhus, D. L. (1998). Socially desirable responding and sexuality self-reports. *The Journal of Sex Research*, 35, 148-157.

- Mills, J. F. & Kroner, D.G. (2006). Impression management and self-report among violence offenders. *Journal of Interpersonal Violence*, 21(2), 178-192.
- Osborne, J.W. (2006). Bringing balance and technical accuracy to reporting odds ratios and the results of logistic regression analyses. *Practical Assessment, Research & Evaluation*, 11(7). Available online: <http://pareonline.net/getvn.asp?v=11&n=7>
- Paulhus, D. L. (1984). Two-component models of socially desirable responding. *Journal of Personality and Social Psychology*, 46(3), 598-609.
- Paulhus, D.L. (1991). Measurement and control of response bias. In J.P. Robinson, P.R. Shaver, & L.S. Wrightsman (Eds.), *Measures of personality and social psychological attitudes* (pp. 17-59). New York: Academic Press.
- Panuzio, J., O'Farrell, T.J., Marshall, A.D., Murphy, C.M., Murphy, M., & Taft, C.T. (2006). Intimate partner aggression reporting concordance and correlates of agreement among men with alcohol use disorders and their female partners. *Assessment*, 13, 266-279.
- Perry, A.R., & Fromuth, M.E. (2005). Courtship violence using couple data: Characteristics and perceptions. *Journal of Interpersonal Violence*, 20, 1078-1095.
- Preacher, K. J., Curran, P. J., & Bauer, D. J. (2006). Computational tools for probing interactions in multiple linear regression, multilevel modeling, and latent curve analysis. *Journal of Educational and Behavioral Statistics*, 31(4), 437-448.
- Raudenbush, S.W., Bryk, A.S., & Congdon, R. (2009). HLM 6.07 for Windows [Computer software]. Skokie, IL: Scientific Software International, Inc

- Schafer, J., Caetano, R., & Clark, C.L. (2002). Agreement about violence in U.S. couples. *Journal of Interpersonal Violence, 17*, 457-470.
- Schafer, J., Caetano, R., & Clark, C. L. (1998). Rates of intimate partner violence in the United States. *American Journal of Public Health, 88*(11), 1702-1704.
- 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.
- Shorey, R. C., Cornelius, T. L., & Bell, K. M. (2011). Reactions to participating in dating violence research: Are our questions distressing participants? *Journal of Interpersonal Violence, 26*(14), 2890-2907.
- Shorey, R.C., Cornelius, T.L., & Bell, K. M. (2008). Critical review of theoretical frameworks for dating violence: Comparing the dating and marital fields. *Aggression and Violence Behavior: A Review Journal, 13*(3), 185-194.
- Shorey, R.C., Temple, J.R., Febres, J., Sherman, A.E., & Stuart, G.L. (2012). The consequences of perpetrating psychological aggression in dating relationships: A descriptive investigation. *Journal of Interpersonal Violence, 27*(15), 2980-2998.
- Simpson, L.E. & Christensen, A. (2005). Spousal agreement regarding relationship aggression on the conflict tactics scale-2. *Psychological Assessment, 17*, 423-432.
- 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.

Straus, M. A., Hamby, S. L. & Warren, W. L. (2003). *The Conflict Tactics Scales Handbook*.

Los Angeles, CA: Western Psychological Services.

Sugarman, D. B. & Hotaling, G.T. (1997) Intimate violence and social desirability: A meta-analytic review. *Journal of Interpersonal Violence*, 12, 275-290.

Szinovacz, M. E., & Egley, L. C. (1995). Comparing one-partner and couple data on sensitive marital behaviors: The case of marital violence. *Journal of Marriage and the Family*, 57, 995-1010.

Testa, M. & Derrick, J.L. (2013). A daily process examination of the temporal association between alcohol use and verbal and physical aggression in community couples. *Psychology of Addictive Behaviors*, Advance online publication.

Testa, M., Quigley, B. M., & Leonard, K. E. (2003). Does alcohol make a difference? Within-participants comparison of incidents of partner violence. *Journal of Interpersonal violence*, 18(7), 735-743.

Appendix

Table 1.
Correlations, Means, and Standard Deviations among Study Variables

	1.	2.	3.	4.	5.
Males (<i>n</i> = 100)					
Perpetration					
1. Psychological Aggression	---				
2. Physical Assault	.42**	---			
Victimization					
3. Psychological Aggression	.91**	.38**	---		
4. Physical Assault	.58**	.75**	.62**	---	.
5. Impression Management	.11	.04	.10	.07	---
Females (<i>n</i> = 100)					
Perpetration					
1. Psychological Aggression	---				
2. Physical Assault	.58**	---			
Victimization					
3. Psychological Aggression	.92**	.55**	---		
4. Physical Assault	.52**	.83**	.55**	---	
5. Impression Management	-.13	.06	-.09	.09	---
Males					
<i>M</i>	9.70	1.33	10.92	3.24	7.21
<i>SD</i>	11.84	3.78	14.64	8.69	3.33
Females					
<i>M</i>	12.62	2.84	11.38	1.75	7.01
<i>SD</i>	18.73	7.93	19.12	5.67	3.24

Note. ***p* < .01

Table 2.
Agreement between Couples on Physical Aggression

Fixed Effect	<i>B</i>	e^B (Rate Ratio)	<i>SE</i>	<i>t</i>	95% <i>CI</i>
Male Perpetration					
<i>Model 1</i>					
Mean Aggression	0.45	1.57	0.19	2.34*	1.07, 2.29
Couple Concordance	0.14	1.15	0.15	-0.95	0.86, 1.54
<i>Model 2</i>					
Mean Aggression	0.27	1.31	0.17	1.62	0.94, 1.83
Male IM	0.18	1.20	0.04	-4.41**	1.10, 1.30
Female IM	0.03	1.03	0.04	-0.61	0.94, 1.12
Couple Concordance	-0.00	1.00	0.13	-0.01	0.77, 1.30
Male IM	0.08	1.09	0.04	2.02*	1.00, 1.18
Female IM	0.10	1.10	0.04	2.39*	1.02, 1.19
Female Perpetration					
<i>Model 1</i>					
Mean Aggression	1.13	3.11	0.19	6.05**	2.14, 4.51
Couple Concordance	0.07	1.07	0.11	0.61	0.86, 1.32
<i>Model 2</i>					
Mean Aggression	1.06	2.89	0.19	5.62**	2.00, 4.21
Male IM	0.06	1.06	0.04	-1.61	0.99, 1.14
Female IM	0.11	1.12	0.05	-2.64*	1.03, 1.23
Couple Concordance	0.12	1.13	0.13	0.96	0.88, 1.45
Male IM	0.05	1.05	0.04	1.43	0.98, 1.13
Female IM	0.04	1.04	0.04	1.05	0.97, 1.12

Note: IM = impression management.
df = 99, 197. *p<.05, **p<.01

Table 3.
Agreement between Couples on Psychological Aggression

Fixed Effect	<i>B</i>	e^B (Rate Ratio)	<i>SE</i>	<i>t</i>	95% <i>CI</i>
Male Perpetration					
<i>Model 1</i>					
Mean Aggression	2.36	10.58	0.11	20.52**	8.43, 13.30
Couple Concordance	0.10	1.10	0.05	-1.85	0.99, 1.22
<i>Model 2</i>					
Mean Aggression	2.31	10.06	0.10	22.87**	8.24, 12.30
Male IM	0.00	1.00	0.03	-0.18	0.95, 1.05
Female IM	0.10	1.11	0.03	-4.30**	1.06, 1.18
Couple Concordance	0.10	1.10	0.05	-2.00	1.00, 1.20
Male IM	0.01	1.01	0.01	0.60	0.98, 1.03
Female IM	0.01	1.01	0.01	0.58	0.98, 1.03
Female Perpetration					
<i>Model 1</i>					
Mean Aggression	2.47	11.84	0.11	22.67**	9.54, 14.70
Couple Concordance	0.09	1.09	0.06	-1.40	0.97, 1.20
<i>Model 2</i>					
Mean Aggression	2.42	11.21	0.10	23.82**	9.17, 13.71
Male IM	0.00	1.00	0.02	0.14	0.96, 1.05
Female IM	0.11	1.12	0.03	-4.29**	1.06, 1.17
Couple Concordance	0.08	1.08	0.05	-1.42	0.97, 1.19
Male IM	0.01	1.01	0.01	0.83	0.99, 1.04
Female IM	0.00	1.00	0.02	0.13	0.97, 1.04

Note: IM = impression management.
df = 99, 197. * $p < .05$, ** $p < .01$

Vita

Heather received her B.A. from the University of Akron in May, 2011. Her current research interests are in the area of intimate partner violence including risk and protective factors, with a specific focus on aggression occurring via technology.