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Abstract
This study examined associations between physical, psychological, and sexual intimate partner aggression (IPA) perpetration during the first year of marriage (T1) and victim marital satisfaction one (T2) and two (T3) years later among a sample of 202 newlywed couples. Prevalence rates of all forms of IPA were consistent with those documented in prior research. Higher levels of all types of IPA generally were associated with lower victim marital satisfaction at all time points, when controlling for initial levels of satisfaction. Couples who reported severe bidirectional psychological IPA demonstrated lower husband and wife marital satisfaction at T2 and lower husband satisfaction at T3 than couples who reported husband-only, wife-only, or no psychological IPA. Analyses examining the relative predictive abilities of all forms of IPA perpetration showed that psychological IPA was the most consistent unique contributor of victim marital satisfaction. Study findings highlight the importance of psychological IPA, in addition to physical IPA, in examinations of correlates of marital satisfaction.

Keywords: Partner abuse, Marital satisfaction, Physical aggression, Psychological aggression, Sexual aggression

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For many, the earliest phases of marriage conjure up images of supremely satisfied couples basking in each other's company while starting down the path of an idyllic life together. Unfortunately, for a substantial number of couples these tranquil images are short-lived at best, and quickly give way to a harsh realization that married life is no walk in the park. In fact, for certain couples, the newlywed phase of marriage is marked by a pattern of increasing conflict and discord that may escalate to aggression of various types. Far from a rare occurrence, studies indicate that 16% to 36% of newlywed husbands and 24% to 44% of wives have perpetrated physical aggression against their partners (Lawrence and Bradbury 2001, 2007; McLaughlin et al. 1992; McNulty and Hellmuth 2008; O'Leary et al. 1989), while over of 90% of newlywed couples report that psychological aggression has occurred in the past year (Frye and Karney 2006; Testa and Leonard 2001). While rates of sexual aggression among newlyweds have yet to be documented, findings among married couples in general suggest that the prevalence of sexually aggressive behaviors is as high as 50% (Monson et al. 2009).

IPA Perpetration and Early Marital Satisfaction

Although the high rates of intimate partner aggression (IPA) are concerning in and of themselves, such behaviors are also troubling because of their potential linkages to negative interpersonal outcomes such as marital dissatisfaction (e.g., Stith et al. 2004). Both cross-sectional and longitudinal studies consistently link physical IPA to lower satisfaction among newlywed couples (Lawrence and Bradbury 2001, 2007; Murphy and O'Leary 1989; Schumacher and Leonard 2005; Testa and Leonard 2001). In a study repre-

sentative of this work, Lawrence and Bradbury (2001) found that wives in couples reporting husband—or wife—perpetrated past-year physical IPA were more likely to be maritally distressed, separated, divorced, or severely dissatisfied at some point over the subsequent four years. This finding was marginally significant for husbands ($p < 0.06$). Furthermore, a common question in this line of research has been the sequencing of physical IPA perpetration and marital satisfaction (i.e., whether IPA perpetration precedes reductions in marital satisfaction or if reductions in marital satisfaction precede IPA perpetration). A recent longitudinal investigation (Lawrence and Bradbury 2007) directly tested this question and concluded that IPA was more often the antecedent of reduced marital satisfaction. Other work has supported this sequencing as well (O'Leary et al. 1989; Testa and Leonard 2001), suggesting that physical IPA has a potent detrimental impact on subsequent marital satisfaction.

Although less frequently studied among newlyweds, psychological IPA also has been associated with reduced marital satisfaction in cross-sectional studies (Schumacher and Leonard 2005; Testa and Leonard 2001). In one such study, greater psychological IPA was linked to lower marital satisfaction during the first year of marriage (Testa and Leonard 2001). Psychological IPA has also been examined as a longitudinal predictor of satisfaction, with results showing that both husband—and wife—perpetrated psychological IPA predicted declines in victim marital satisfaction during first year, but not the second year, of marriage (Schumacher and Leonard 2005). Similarly, Testa and Leonard (2001) reported that husband-perpetrated psychological IPA during the first year of marriage was associated with lower victim marital satisfaction, beyond the effects of physical IPA. Thus, converging evidence suggests a longitudinal relationship between psychological IPA and decreased marital satisfaction.

Sexual interactions are a key aspect of intimate relationships—and thus an area where conflict and aggression may arise. Inexplicably, most IPA research excludes the assessment of aggression occurring in sexual contexts, leading to the current limited understanding of this form of IPA (see Hamby 2009; Saunders 2002). The absence of research on sexual IPA and marital satisfaction among newlyweds represents a particular shortcoming. Existing research with non-newlyweds reveals some conflicting findings regarding the role of sexual IPA in relationship satisfaction. Among female undergraduates, for example, experiencing verbal sexual coercion has been linked to lower relationship satisfaction (Katz and Myhr 2008); however, a similar study using a different measure to assess sexual coercion found no such relationship (Katz et al. 2006). Likewise, a study of marital therapy couples found no unique association between sexual IPA and marital satisfaction when controlling for physical and psychological IPA (Meyer et al. 1998). Nevertheless, one factor that may give rise to sexual IPA and contribute to marital dissatisfaction is partners' differing sexual desires (Klusmann 2002). If husbands seek sexual relations more often than their wives do (Baumeister et al. 2001), then these differences may contribute to conflicting expectations regarding how often sexual activity will take place in the relationship. The lack of a clear pattern of findings examining associations between sexual IPA and marital satisfaction, as well as the paucity of research on sexual aggression among newlyweds, suggest that this form of IPA is in need of further inquiry.

Gender Differences in Associations Between IPA and Marital Satisfaction

The possibility of gender differences in the sequelae of IPA is perhaps the most longstanding debate in the IPA field (see Cercone et al. 2005). One pivotal argument stems from findings that male-perpetrated IPA is more severe and thus associated with greater negative outcomes than women's aggression (e.g., Saunders 2002). On the other hand, some argue that female-perpetrated IPA occurs at a comparable frequency as male perpetrated aggression, which leads to similarly deleterious consequences (e.g., Straus 2006). Examining this issue with marital satisfaction as an outcome in a recent meta-analysis, Stith et al. (2008) found that male-perpetrated IPA exerted a greater negative impact on female partner satisfaction than did female-perpetrated IPA on male partner satisfaction. These findings suggest that experiencing physical IPA may impact wives' satisfaction more so that husbands' satisfaction; however, it is unclear how these prior findings obtained from non-newlywed couples may translate to recently married partners, who, regardless of gender, may be similarly affected by aggression during this period of relatively high marital satisfaction. Further, no investigations to date have examined gender differences in the relationship between psychological or sexual IPA and victim marital satisfaction.

Differences in Unidirectional Versus Bidirectional IPA and Marital Satisfaction

Patterns of violence vary by couple; in some instances, only one partner is aggressive (i.e., unidirectional IPA), and in some instances, both partners are aggressive (i.e. bidirectional IPA). To date, little is known about the relationship between directionality of aggression and subsequent marital satisfaction. Bidirectional IPA is common among newlyweds, and the frequen-

cy with which one perpetrates physical IPA tends to be similar to his or her partner (Leonard and Senchak 1996). Some data suggest that there is no difference in rates of marital failure (defined as severe dissatisfaction, separation, or divorce) between unidirectionally and bidirectionally aggressive couples (Bradbury and Lawrence 1999). However, due to the small number of husband-violent only couples in that sample, the unidirectionally aggressive group contained only couples in which the wife perpetrated physical IPA. Previous research not limited to newlywed couples has demonstrated that greater IPA severity, psychological symptomatology, and relationship distress is associated with unidirectional versus bidirectional physical IPA (Swan and Snow 2003; Temple et al. 2005; Vivian and Langhinrichsen-Rohling 1994). One contributing factor in research showing greater effects for unidirectional IPA is that samples in these studies often include male partners who perpetrate more severe physical IPA (i.e., associated with greater injury) than the female partner's physical IPA. Thus, it is possible that among couples in which IPA perpetration frequency and severity is more similar across genders, as is typically the case in newlywed couples (e.g., Lawrence and Bradbury 2007), bidirectional violence may be associated with poorer marital satisfaction.

Unique Contributions of Different Forms of IPA Perpetration to Marital Satisfaction

Rather than occurring in isolation, various forms of IPA often co-occur (Monson et al. 2009). These findings raise important questions about whether the different types of IPA make unique contributions to marital satisfaction. Within the newlywed literature, two studies indicate that physical IPA is uniquely associated with marital satisfaction beyond that attributable to psychological IPA, problem-solving behavior, and verbal conflict (Lawrence and Bradbury 2001; Testa and Leonard 2001). Despite this evidence, however, no study to date has simultaneously examined the relative impact of all three forms of IPA on marital satisfaction among newlyweds.

Overview of the Present Study

In the current investigation, we aimed to address the above-described gaps in the literature on IPA perpetration and marital satisfaction among newlyweds by testing the following hypotheses. First, consistent with prior work (e.g., Katz and Myhr 2008; Lawrence and Bradbury 2007; Schumacher and Leonard 2005), we hypothesized that husband- and wife-perpetrated physical, psychological, and sexual IPA during the first year of marriage (T1) would be negatively associated with victim marital satisfaction reported concurrently (T1), as well as one (T2) and two (T3) years later. Second, based on research documenting that husband-perpetrated physical IPA is associated with greater decrements in wife marital satisfaction than the analogous relationship for wife-perpetrated IPA (Stith et al. 2008), we hypothesized that husband-perpetrated physical, psychological, and sexual IPA would evidence stronger associations with T2 and T3 wife marital satisfaction than the parallel relationships between wife-perpetrated IPA and husband satisfaction. A third objective was to further understanding of associations between the directionality of IPA and satisfaction. Given the inconclusive results revealed by prior work (Bradbury and Lawrence 1999; Temple et al. 2005), we sought to shed light on which pattern of T1 IPA (none, unidirectional, or bidirectional) was associated with the poorest T2 and T3 victim marital satisfaction. Lastly, we examined potential unique effects of physical, psychological, and sexual IPA on victim satisfaction, with the expectation that all types of aggressive behavior would show unique associations with decreased satisfaction at T2 and T3.

Method

Participants

Participants were 202 heterosexual couples (N = 404) recruited during the first year of marriage from a database of marriage license applications in Lancaster County, Nebraska. All participants were part of a larger study examining the longitudinal effects of child maltreatment on adult intimate relationships (see DiLillo et al. 2009); however, the current investigation focused exclusively on present marital functioning. Wives were an average of 25.75 years old (SD=3.96), and husbands were an average of 27.23 years old (SD=4.05) at T1. The majority of participants (96% of wives, 92% of husbands) was European American. Regarding annual family income, 67.5% of participants earned less than $60,000, 27.5% reported an income of $60,001-$100,000, and 5% reported an income of above $100,001. Couples reported being married for an average of 11.06 months (SD=2.46) at T1. Of the 202 couples who completed the T1 assessment, 94% completed the T2 assessment and 91% completed the T3 assessment.

Measures

The Revised Conflict Tactics Scales (CTS2; Straus et al. 1996) was used to assess IPA. Respondents reported how often they and their partner engaged in each of 27 aggressive behaviors (12 physical, 8 psychological, and 7 sexual) during the year prior to each assess-

ment on a scale of 0 (*never*) to 6 (*more than 20 times*). To guard against underreporting, the score of the partner who reported a greater frequency of abuse was used in all analyses. All physically aggressive items were severity-weighted based on their potential for injury (see Straus 1990). Within each subscale (i.e. Physical Assault, Psychological Aggression, Sexual Coercion), responses are summed to produce three total scores representing the total frequency of each type of aggression for husbands and wives, individually. As noted, rates of psychological IPA are very high in newlywed couples (over 90%; Frye and Karney 2006). Thus, exclusively for analyses that required a dichotomous psychological IPA variable (i.e., Hypothesis 3), only the four severe items (i.e., *called my partner fat or ugly*, *destroyed something belonging to my partner*, *accused my partner of being a lousy lover*, *threatened to hit or throw something at my partner*) were used. Given the generally low prevalence of severe sexual IPA among community couples (e.g., Monson et al. 2009), only the minor items (i.e., *made my partner have sex without a condom*; *insisted on sex when my partner did not want to*, *insisted on oral/anal sex when my partner did not want to*) from the Sexual Coercion subscale were used in all analyses.

The Quality Marriage Index (QMI; Norton 1983) was used to measure marital satisfaction. The QMI consists of six items. On the first five items, respondents indicate how much they agree with each statement (e.g., *My relationship with my partner makes me happy*) on a 7-point scale ranging from 1 (*very strongly disagree*) to 7 (*very strongly agree*). For the sixth question, respondents report how happy they perceive their relationship to be on a scale of 1 (*unhappy*) to 10 (*perfectly happy*). In the present sample, internal consistency reliability estimates averaged 0.93 across partners and time points.

Procedures

Couples were identified through public marriage records in Lancaster County, Nebraska. Out of the 1,420 eligible couples who were mailed a letter explaining the investigation and inviting their participation, 14.2% chose to enroll. Although this recruitment rate is fairly consistent with prior investigations employing similar recruitment methods (Davila et al. 1997; Kurdek 2005), this percentage likely underestimates the successful recruitment of first-time married couples, as an unknown number of couples receiving the recruitment letter had been married previously, and were thus ineligible for the study. After participating in a brief phone screen, couples came in to the laboratory together where they completed each study session. Each partner completed the computerized self-report measures in a separate room to ensure privacy and prevent discussion of responses. Couples were paid $75, $100, and $125 for the Time 1, 2, and 3 assessments, respectively. A research assistant was available to answer questions. All procedures were approved by the University of Nebraska-Lincoln Institutional Review Board.

Results

Descriptive Statistics

Table 1 presents descriptives for all study variables. The prevalence rates of husband-perpetrated physical, psychological, and sexual IPA were 30.2%, 92.6%, and 48.5%, respectively. The prevalence rates of wife-perpetrated physical, psychological, and sexual IPA were 33.7%, 95.0%, and 39.1%, respectively. Prevalence rates of specific sexually coercion behaviors were as follows: made my partner have sex without a condom (19.2% of

Table 1 Descriptives for study variables

	Husbands		Wives		Partner Difference
	M	SD	*M*	SD	*t*(*df*)
Physical IPA Perpetration	2.60	7.93	3.56	8.85	-1.66 (202)
Psychological IPA Perpetration	24.10	22.83	26.34	24.04	-2.50* (201)
Sexual IPA Perpetration	6.26	11.57	4.49	9.03	3.41** (201)
T1 Marital Satisfaction	29.33	3.71	29.05	3.95	1.21 (199)
T2 Marital Satisfaction	28.65	4.12	28.63	4.02	-0.24 (185)
T3 Marital Satisfaction	28.54	4.19	28.69	4.56	-0.49 (178)

IPA intimate partner aggression. All aggression variables reflect T1 assessment. For descriptive purposes, physical assault scores are not severity-weighted

*$p < 0.05$, **$p < 0.01$

husbands; 19.7% of wives), insisted on sex when my partner did not want to (35.5% of husbands; 24.6% of wives), insisted that my partner have anal or oral sex (15.8% of husbands; 8.9% of wives). Severe sexual IPA items were endorsed infrequently (ranging from 0.5% to 2.0% for husbands and wives across behaviors). Paired sample *t*-tests revealed that wives perpetrated significantly more psychological IPA than husbands, $t(201)=-2.50$, $p < 0.05$, and husbands perpetrated significantly more sexual IPA than wives, $t(201)=3.41$, $p < 0.01$. Analyses further showed no significant gender differences in physical IPA or marital satisfaction at any time point.

Bivariate correlations among study variables are presented in Table 2. Correlations among the three types of husband-perpetrated IPA ranged from 0.09 to 0.36, with a similar range found for wife-perpetrated IPA (0.08 to 0.42). Correlations between all types of husband- and wife-perpetrated IPA ranged from 0.07 and 0.85. Husband and wife marital satisfaction at all three time points were significantly related, with correlations ranging from 0.26 to 0.69 (all *p*s < 0.01).

Hypothesis 1: Associations Between IPA Perpetration and Victim Marital Satisfaction

As reflected in Table 2, husband-perpetrated physical, psychological, and sexual IPA were significantly negatively associated with wives' T1 marital satisfaction, $r=-0.22$, $r = -0.48$, and $r = -0.23$ (*p*s < 0.01), respectively. Wife-perpetrated physical and psychological IPA were significantly negatively associated with husbands' T1 marital satisfaction, $r=-0.29$ and $r=-0.42$ (*p*s < 0.01), respectively; however, wife-perpetrated sexual coercion was not related to husbands' T1 marital satisfaction, $r=-0.13$, *ns*.

To test the hypothesis that T1 husband- and wife-perpetrated physical, psychological, and sexual IPA would be negatively associated with T2 and T3 victim marital satisfaction, partial correlations were computed between each form of T1 IPA and T2 and T3 marital satisfaction, controlling for satisfaction at T1. Partial correlations were employed because they provide the most stringent test of the unique relationship between two variables by controlling the influence of a covariate (i.e., T1 marital satisfaction) on both the independent and dependent variable. Considering initial marital satisfaction in our analyses also provides a more conservative test of study hypotheses by eliminating the possibility that associations between IPA perpetration and subsequent marital satisfaction are due solely to shared variation between IPA and T1 satisfaction (see Frye and Karney 2006; Testa and Leonard 2001). As shown in Table 3, husband-perpetrated physical IPA was not significantly associated with wife marital satisfaction at T2 or T3 after controlling for T1 wife satisfaction. Conversely, husband-perpetrated psychological IPA was negatively associated with wife satisfaction at T2 and T3. In addition, husband-perpetrated

Table 2 Intercorrelations among study variables

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
1. Physical — HP	—											
2. Physical — WP	0.70**	—										
3. Psychological — HP	0.36**	0.44**	—									
4. Psychological — WP	0.32**	0.42**	0.85**	—								
5. Sexual — HP	0.09	0.14*	0.30**	0.31**	—							
6. Sexual — WP	0.07	0.08	0.21**	0.27**	0.77**	—						
7. MS T1 — H	-0.16*	-0.29**	-0.37**	-0.42**	-0.14*	-0.13	—					
8. MS T1 — W	-0.22**	-0.33**	-0.48**	-0.41**	-0.23**	-0.21**	0.54**	—				
9. MS T2 — H	-0.05	-0.11	-0.29**	-0.38**	-0.17*	-0.20**	0.53**	0.31**	—			
10. MS T2 — W	-0.07	-0.15*	-0.41**	-0.37**	-0.31**	-0.28**	0.49**	0.69**	0.35**	—		
11. MS T3 — H	-0.31**	-0.35**	-0.34**	-0.43**	-0.18*	-0.17*	0.38**	0.28**	0.57**	0.26**	—	
12. MS T3 — W	-0.10	-0.04	-0.32**	-0.28**	-0.18*	-0.22**	0.41**	0.49**	0.38**	0.61**	0.42**	—

H husband, *W* wife, *P* perpetrated, *MS* victim's marital satisfaction. All partner aggression variables were measured at Time 1
*$p < 0.05$, **$p < 0.01$

Table 3 Partial correlations between intimate partner aggression and partner Time 2 and Time 3 marital satisfaction

	Husband perpetration	Wife perpetration	Fisher's Z-test
T2 Victim Marital Satisfaction			
Physical Assault	0.11	-0.02	1.30
Psychological Aggression	-0.17*	-0.32**	1.60
Sexual Coercion	-0.20*	-0.33**	1.40
T3 Victim Marital Satisfaction			
Physical Assault	-0.04	-0.30**	1.11
Psychological Aggression	-0.15*	-0.23**	0.83
Sexual Coercion	-0.09	-0.26**	1.75

All analyses control for T1 victim marital satisfaction
*$p < 0.05$, ** $p < 0.001$

sexual IPA was negatively associated with wife satisfaction at T2 but not at T3. Wife-perpetrated physical IPA was not associated with husband marital satisfaction at T2 but was negatively associated with husband satisfaction at T3. In addition, wife-perpetrated psychological and sexual IPA were negatively associated with husband marital satisfaction at both T2 and T3.

Hypothesis 2: Gender Differences in IPA Perpetration-Victim Marital Satisfaction Relationships

To test the hypothesis that all types of T1 husband-perpetrated IPA would evince stronger associations with T2 and T3 wife marital satisfaction than would T1 wife-perpetrated IPA with T2 and T3 husband marital satisfaction, Fisher's Z-test was used to compare the partial correlations obtained for husbands and wives in Hypothesis 1 analyses. As shown in Table 3, there were no significant differences between husband-perpetrated IPA-wife satisfaction correlations and wife-perpetrated IPA-husband satisfaction correlations for any type of IPA.

Hypothesis 3: IPA Perpetration Directionality and Marital Satisfaction

Prior to exploring possible associations between IPA perpetration directionality and marital satisfaction, the percentage of couples who experienced each of the four categories of directionality was examined. A couple was considered to have perpetrated bidirectional IPA if both partners engaged in *any* aggressive behavior within the category of interest (i.e., physical, psychological, or sexual IPA), while the single-perpetrator categories consisted of couples in which one partner perpetrated any amount of IPA and the other partner did not engage in any. Directionality prevalence of physical IPA was as follows: neither husband- nor wife-perpetrated (63.4%), husband-perpetrated only (3.0%), wife-perpetrated only (6.4%), and both husband-and wife-perpetrated (27.2%). Directionality prevalence of severe psychological IPA was as follows: neither husband-nor wife-perpetrated (63.9%), husband-perpetrated only (5.9%), wife-perpetrated only (8.4%), and both husband-and wife-perpetrated (21.8%). Lastly, directionality prevalence for sexual IPA was as follows: neither husband-nor wife-perpetrated (45.5%), husband-perpetrated only (15.3%), wife-perpetrated only (5.9%), and both husband- and wife-perpetrated (33.2%).

To examine relations between IPA directionality on marital satisfaction, separate ANCOVA analyses were conducted for each form of IPA (i.e., physical, severe psychological, and sexual). In each ANCOVA, directionality of IPA (neither partner, husband only, wife only, both partners) served as the independent variable, husbands' or wives' T2 or T3 marital satisfaction served as the dependent variable, and marital satisfaction at T1 served as the covariate. Results from these analyses are presented in Table 4. Directionality of physical IPA and sexual IPA was not related to either husband or wife marital satisfaction at T2 or T3. However, a different pattern emerged for psychological IPA. Couples in which severe psychological IPA was perpetrated by both partners evidenced significantly lower husband marital satisfaction at T2 and T3 and significantly lower wife satisfaction at T2 than couples in which there was no severe psychological IPA or husband-or wife-perpetrated severe psychological IPA only. In addition, wives in couples characterized by bidirectional psychological IPA reported lower sat

Table 4 Differences in marital satisfaction by directionality of intimate partner aggression

	None	Husband only	Wife only	Bidirectional	*F*(df)	Fisher's LSD
T2 Husband Marital Satisfaction						
Physical	28.88 (4.38)	27.50 (4.14)	29.77 (2.83)	28.08 (3.75)	F(3, 179)=0.27	
Psychological	29.63 (3.35)	29.08 (2.54)	28.94 (4.30)	25.31 (5.10)	F(3, 179)=6.91**	N, HO, WO > B
Sexual	29.36 (3.77)	28.96 (4.40)	26.09 (4.50)	28.12 (4.23)	F(3, 179)=1.90	
T3 Husband Marital Satisfaction						
Physical	29.07 (4.00)	29.40 (2.07)	29.00 (3.49)	26.91 (4.76)	F(3, 172)=2.20	
Psychological	29.16 (3.58)	28.58 (5.71)	29.38 (3.07)	25.82 (5.17)	F(3, 172)=3.81*	N, HO, WO > B
Sexual	28.93 (4.03)	29.00 (3.54)	27.91 (4.55)	27.85 (4.65)	F(3, 172)=0.64	
T2 Wife Marital Satisfaction						
Physical	28.90 (3.89)	28.50 (4.85)	28.23 (4.20)	28.10 (4.32)	F(3, 183)=0.49	
Psychological	29.21 (3.69)	29.83 (2.69)	29.88 (2.55)	25.84 (4.85)	F(3, 183)=2.75*	N, HO, WO > B
Sexual	29.32 (3.09)	28.43 (3.55)	28.18 (2.75)	27.85 (5.36)	F(3, 183)=0.50	
T3 Wife Marital Satisfaction						
Physical	28.89 (4.48)	31.40 (0.89)	29.08 (3.55)	27.75 (5.20)	F(3, 174)=1.00	
Psychological	29.16 (4.18)	29.75 (3.05)	29.88 (2.74)	26.03 (6.10)	F(3, 174)=1.88	WO > B
Sexual	28.85 (4.26)	29.88 (3.03)	28.09 (7.26)	28.07 (4.94)	F(3, 174)=0.45	

LSD least significant difference; *N* none; *HO* husband only; *WO* wife only; *B* bidirectional *$p < 0.05$, **$p < 0.001$

Table 5 Multiple regression analyses predicting T2 and T3 husband and wife marital satisfaction

Variables	β	*t*	*p*
	T2 Husband marital satisfaction		
T1 Husband marital satisfaction	0.45	6.87	0.00
Wife-perpetrated physical IPA	0.05	0.78	0.44
Wife-perpetrated psychological IPA	-0.20	-2.87	0.01
Wife-perpetrated sexual IPA	-0.12	-1.86	0.07
$R^2 = 0.33$, $F(3, 179) = 22.39$, $p < 0.001$			
	T3 Husband marital satisfaction		
T1 Husband marital satisfaction	0.25	3.57	0.00
Wife-perpetrated physical IPA	-0.20	-2.85	0.01
Wife-perpetrated psychological IPA	-0.24	-3.18	0.02
Wife-perpetrated sexual IPA	-0.08	-1.18	0.24
$R^2 = 0.28$, $F(3, 172) = 16.53$, $p < 0.001$			
	T2 Wife marital satisfaction		
T1 Wife marital satisfaction	0.62	10.92	0.00
Husband-perpetrated physical IPA	0.15	2.63	0.01
Husband-perpetrated psychological IPA	-0.15	-2.39	0.02
Husband-perpetrated sexual IPA	-0.14	-2.47	0.02
$R^2 = 0.52$, $F(3, 183) = 49.93$, $p < 0.001$			
	T3 Wife marital satisfaction		
T1 Wife marital satisfaction	0.42	5.83	0.00
Husband-perpetrated physical IPA	0.06	0.81	0.42
Husband-perpetrated psychological IPA	-0.15	-1.90	0.06
Husband-perpetrated sexual IPA	-0.07	-0.99	0.32
$R^2 = 0.26$, $F(3, 174) = 15.10$, $p < 0.001$			

IPA intimate partner aggression

isfaction at T3 than wives in couples in which only the wife perpetrated this form of aggression.

Hypothesis 4: Unique Associations of IPA Perpetration Types with Marital Satisfaction

To test Hypothesis 4, four separate multiple regression analyses (i.e., predicting T2 wife satisfaction, T3 wife satisfaction, T2 husband satisfaction, and T3 husband satisfaction) were conducted to test if any type of IPA evidenced unique associations with T2 and T3 victim marital satisfaction above and beyond T1 victim satisfaction. In each regression analysis, T1 victim marital satisfaction was entered at Step 1, and physical, psychological, and sexual IPA were entered simultaneously at Step 2. Table 5 displays the results of these analyses. When all three types of husband-perpetrated IPA, along with T1 wife marital satisfaction, were entered into a regression equation predicting T2 wife satisfaction, all three IPA types emerged as significant unique predictors of the dependent variable. Specifically, higher levels of husband-perpetrated psychological and sexual IPA were associated with lower T2 wife marital satisfaction, while higher levels of husband-perpetrated physical IPA were associated with higher T2 wife satisfaction. These IPA perpetration variables predicted 5% more of the variance in T2 wife marital satisfaction than that accounted for by T1 wife satisfaction. Examination of the same model predicting T3 wife marital satisfaction revealed that no forms of husband-perpetrated IPA were significant predictors of the dependent variable. However, husband-perpetrated psychological IPA was a marginally significant predictor of wife marital satisfaction at T3 ($p < 0.06$) such that greater psychological IPA was associated with lower wife satisfaction. These IPA perpetration variables predicted 2% more of the variance in T3 wife marital satisfaction than that accounted for by T1 wife satisfaction.

A parallel multiple regression model predicting T2 husband marital satisfaction from wife-perpetrated physical, psychological, and sexual IPA (controlling for husband T1 satisfaction) revealed that only wife-perpetrated psychological IPA evidenced a significant unique relationship with the outcome variable such that greater levels of this form of IPA were associated with lower husband satisfaction. Further, wife-perpetrated sexual IPA was a marginally significant unique predictor of T2 husband satisfaction ($p < 0.07$). Again, higher levels of this form of IPA were associated with lower satisfaction. These IPA perpetration variables accounted for an additional 6% of the variance in T2 husband satisfaction beyond that explained by T1 husband satisfaction. Examination of the same model predicting T3 husband marital satisfaction demonstrated that both wife-perpetrated physical and psychological IPA were significant unique predictors of the outcome such that higher levels of these forms of IPA were associated with lower satisfaction. Sexual IPA was not a significant predictor of T3 husband satisfaction in this model. These IPA perpetration variables accounted for an additional 13% of the variance in T3 husband satisfaction beyond that explained by T1 husband satisfaction.

Discussion

This study explored concurrent and longitudinal associations between husband- and wife-perpetrated physical, psychological, and sexual IPA, and victim marital satisfaction among a sample of newlywed couples. Prior to examining findings directly related to this aim, levels of marital satisfaction and IPA perpetration bear note. Initial marital satisfaction in the present study was relatively high, consistent with other investigations of newlywed couples (see Bradbury and Karney 2004), and did not differ by gender. Further, the prevalence of husband- and wife-perpetrated physical and psychological IPA was comparable to those found in other newlywed samples (Frye and Karney 2006; Lawrence and Bradbury 2001, 2007; McLaughlin et al. 1992;O'Leary et al. 1989; Testa and Leonard 2001), although wives' physical IPA rates appeared slightly lower when compared with other investigations. As suggested by meta-analytic findings (Archer 2002), there were no significant gender differences in physical IPA perpetration frequency; however, wives perpetrated significantly more psychological IPA than husbands (see Hines and Saudino 2003, for similar findings among undergraduate dating partners). Associations between physical and psychological IPA perpetration appeared weaker than those documented in prior studies of couples at any point in marriage (see Stith et al. 2004), perhaps suggesting that these forms of IPA may not be as strongly intertwined early in marriage as in later relationship stages.

This may be the first study to document rates of sexual IPA among newlywed couples. Consistent with other marital samples (e.g., Meyer et al. 1998; O'Leary and Williams 2006), rates of verbal sexual coercion were found to be high among both husbands (48.5%) and wives (39.1%). This gender discrepancy mirrors results from a large sample of undergraduates demonstrating that men perpetrate more sexual IPA than women (Hines and Saudino 2003), as well as data showing that women report greater sexual IPA victimization than men in nationally representative samples (Coker et al. 2002). A potential explanation for this gender difference among newlyweds comes from findings that men's desired frequency of sexual intimacy remains stable early in the marital relationship while women's

sexual desires decrease during that time (Klusmann 2002). It is possible that newly married husbands may use verbally coercive behaviors to compel their wives to maintain previous levels of sexual activity. Prior writings also suggest that sexual IPA by husbands may be fostered by a view that marriage brings entitlement to sexual pursuits (for a discussion see Martin et al. 2007). Although more sexual IPA was perpetrated by husbands, the present findings also add to a small but growing literature suggesting that wife-perpetrated sexual coercion is not a rare occurrence (Christopher et al. 2008; O'Leary and Williams 2006). In addressing this issue, some have suggested that women engage in verbal sexual coercion to achieve greater emotional intimacy with their partners (Schatzel-Murphy et al. 2009). Future work aimed at understanding the differing factors contributing to male and female sexual IPA perpetration is needed.

As hypothesized, higher levels of both husband- and wife-perpetrated physical, psychological, and sexual IPA generally were associated with lower victim marital satisfaction at all time points (though the longitudinal associations were somewhat less consistent than the cross-sectional relationships). The notion that multiple forms of IPA precede reductions in marital satisfaction suggests that there are elements inherent to all forms of partner aggressive behavior (e.g., lack of empathy for the partner; Covell et al. 2007) that are detrimental to how IPA victims globally evaluate their marriage. These linkages further suggest that aggression in its multiple forms is an important target of intervention with couples in the early stages of marriage and may supplement treatments that more generally focus on verbal communication. Although findings generally supported study hypotheses, one finding counter-intuitively showed that higher levels of husband-perpetrated physical IPA were associated with greater marital satisfaction among wives at the second assessment point. Although unexpected, it is possible that husband-perpetrated physical IPA, which may occur intermittently, may not exert a detrimental effect on wives at this generally high-satisfaction stage of marriage. However, this finding is based on the reports of a small number of individuals; thus, future work replicating this association is needed before any conclusions are drawn.

Contrary to hypotheses and prior research (e.g., Katz et al. 2002), partner IPA perpetration did not exert a stronger influence on wives', as opposed to husbands', marital satisfaction. The basis for this expectation stemmed from past findings that women experience more severe IPA and, thus, greater IPA-associated adverse outcomes (e.g., fear, injury; see Stith et al. 2008). In turn, researchers have suggested that the greater negative sequelae that women experience serve to differentiate IPA's impact on marital satisfaction by gender. However, in the present sample, husband-and wife-perpetrated physical IPA frequency and severity did not differ, perhaps diminishing potential gender differences between physical IPA and victim satisfaction. Further, although there were gender differences in psychological and sexual IPA perpetration in the present sample, it is possible that other negative effects of these behaviors (e.g., sadness, fear, shame) were similar among husbands and wives, again producing similar associations with later satisfaction.

One consistent finding that emerged across analyses was the salience of psychological IPA in predicting lower marital satisfaction. Psychological IPA was reported by almost all couples in the present sample, supporting prior work suggesting that some degree of these behaviors (e.g., yelling, swearing, and/or insulting) may be normative in intimate relationships (Frye and Karney 2006; O'Leary and Williams 2006). However, among couples in which both partners perpetrated severe psychological IPA, husbands and wives consistently evinced less satisfaction. These results point to the potentially powerful negative influence of psychological IPA on marriages, particularly when engaged in by both partners. Psychological IPA may be especially corrosive to partners' marital satisfaction because it suggests that the couple is having difficulties with "first-line" (i.e., verbal) attempts at conflict resolution, which have been found to negatively impact partners' perceptions of their marriage (Greeff and de Bruyne 2000). Psychological IPA also surfaced as a key unique predictor of partner marital satisfaction when considered relative to other forms of IPA (see Schumacher and Leonard 2005 for similar results). This finding is in contrast to some prior studies that have found physical IPA to predict variance in victim marital satisfaction beyond that accounted for by psychological IPA (Lawrence and Bradbury 2001; Testa and Leonard 2001), although those studies did not include sexual IPA as a covariate. Psychological IPA may be particularly harmful because it involves directly conveying hurtful messages to a partner, either verbally (e.g., through insults) or behaviorally (e.g., destroying of a partner's property). Especially in severe instances, psychological IPA encompasses very hurtful behaviors (e.g., personality insults, destruction of valued objects), which may be toxic to a relationship, resulting in lasting harm to marital satisfaction. Future research examining psychological IPA in relation to marital satisfaction in greater depth is needed, including investigations that explore the context surrounding psychologically aggressive acts to determine the extent to which they are perceived as normative versus abusive (e.g., Dehart et al. 2010).

Replicating findings from a prior study (Bradbury and Lawrence 1999), there were no differences in either husband or wife marital satisfaction across directionality groups for physical or sexual IPA. Although some prior evidence suggests that unidirectionally aggressive couples experience lower marital satisfaction than those who are bidirectionally aggressive, these findings appear to be specific to more severely victimized individuals (e.g., Vivian and Langhinrichsen-Rohling 1994), which does not characterize the current sample. Bidirectional IPA is a complex phenomenon that can be operationalized in various ways. Although a broad definition was employed here, it may be informative to consider the frequency, severity, and partners' perception of the aggressive behaviors. It will also be useful in future research to distinguish between bidirectional aggression consisting primarily of mutually combative incidents versus that which reflects unidirectional acts committed by each partner on different occasions.

Limitations of the current study should be noted. The couples comprising this sample, while representative of the area from which they were recruited, were fairly homogenous, particularly with respect to race and ethnicity. Relatedly, although recruitment rates were similar to other studies employing similar recruitment methods, most couples who were invited to participate opted not to, raising the possibility that there are systematic differences between couples who enrolled in the study and those who did not. It will be important for future investigations to explore these research questions with more broadly representative samples of newlyweds. Further, although findings generally supported predicted relations between IPA and marital satisfaction, these associations tended to be modest. In fact, even in models including IPA, T1 partner marital satisfaction consistently emerged as the strongest predictor of later satisfaction. These findings reinforce the view of marital satisfaction as the product of multiple influences rather than the result of any single aspect of relationship functioning (Bradbury et al. 2000). Finally, although rates of IPA were consistent with other newlywed samples, the severity of aggressive behavior among couples in this study was relatively low, limiting generalizability to more aggressive couples.

The results of the present study add to a growing body of literature that identifies IPA perpetration as an important contributor to satisfaction later in marriage. Psychological IPA was most consistently related to victim marital satisfaction, suggesting that clinicians should pay particular attention to the potential detrimental impacts of this form of IPA on marital satisfaction. The current findings also indicate that husbands, as well as wives, may be impacted by their partner's aggressive behavior. The effects of women's IPA on their male partners have less often been addressed than has men's IPA on females; however, practitioners should also consider that both husbands and wives may be less satisfied with their marriage because of their partners' aggressive behavior, regardless of the severity. Patterns of findings extending to physical, psychological, and sexual IPA indicate a need to consider all forms of aggression when investigating determinants of marital satisfaction.

References

Archer, J. (2002). Sex differences in physically aggressive acts between heterosexual partners: a meta-analytic review. *Aggression and Violent Behavior*, 7, 313-351.

Baumeister, R. F., Catanese, K. R., & Vohs, K. D. (2001). Is there a gender difference in strength of sex drive? Theoretical views, conceptual distinctions, and a review of relevant evidence. *Personality and Social Psychology Review*, 5, 242-273.

Bradbury, T. N., & Karney, B. R. (2004). Understanding and altering the longitudinal course of marriage. *Journal of Marriage and the Family*, 66, 862-879.

Bradbury, T. N., & Lawrence, E. (1999). Physical aggression and the longitudinal course of newlywed marriage. In X. B. Arriaga & S. Oskamp (editors), *Violence in Intimate Relationships* (pp. 181-202). Thousand Oaks, Calif.: Sage.

Bradbury, T. N., Fincham, F. D., & Beach, S. R. H. (2000). Research on the nature and determinants of marital satisfaction: a decade in review. *Journal of Marriage and the Family*, 62, 964-980.

Cercone, J. J., Beach, S. R., & Arias, I. (2005). Gender symmetry in dating intimate partner violence. Does similar behavior imply similar constructs? *Violence and Victims*, 20, 207-218.

Christopher, F. S., Pflieger, J. C., Canary, D. J., Guerrero, L. K., & Holtzworth-Munroe, A. (2008). Targeted neighborhood sampling: a new approach for recruiting abusive couples. *Journal of Family Violence*, 23, 89-100.

Coker, A. L., Davis, K. E., Arias, I., Desai, S., Sanderson, M., Brandt, H. M., et al. (2002). Physical and mental health effects of intimate partner violence for men and women. *American Journal of Preventive Medicine*, 23, 260-268.

Covell, C. N., Huss, M. T., & Langhinrichsen-Rohling, J. (2007). Empathic deficits among male batterers: a multidimensional approach. *Journal of Family Violence*, 22, 165-174.

Davila, J., Bradbury, T. N., Cohan, C. L., & Tochluk, S. (1997). Marital functioning and depressive symptoms: evidence for a stress generation model. *Journal of Personality and Social Psychology*, 73, 849-861.

DeHart, D. D., Follingstad, D. R., & Fields, A. M. (2010). Does context matter in determining psychological abuse? Effects of pattern, harm, relationship, and norms. *Journal of Family Violence*, 25, 461-474.

DiLillo, D., Peugh, J., Walsh, K., Panuzio, J., Trask, E., & Evans, S. (2009). Child maltreatment history among newlywed couples: a longitudinal study of marital outcomes and mediating pathways. *Journal of Consulting and Clinical Psychology*, 77, 680-692.

Frye, N. E., & Karney, B. R. (2006). The context of aggressive behavior in marriage: a longitudinal study of newlyweds. *Journal of Family Psychology*, 20, 12-20.

Greeff, A. F., & de Bruyne, T. (2000). Conflict management style and marital satisfaction. *Journal of Sex & Marital Therapy*, 26, 321-334.

Hamby, S. (2009). The gender debate about intimate partner violence: solutions and dead ends. *Psychological Trauma: Theory, Research, Practice, and Policy*, 1, 24-34.

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, 197-217.

Katz, J., & Myhr, L. (2008). Perceived conflict patterns and relationship quality associated with verbal sexual coercion by male dating partners. *Journal of Interpersonal Violence*, 23, 798-814.

Katz, J., Kuffel, S. W., & Coblentz, A. (2002). Are there gender differences in sustaining dating violence? An examination of frequency, severity, and relationship satisfaction. *Journal of Family Violence*, 17, 247-271.

Katz, J., Kuffel, S. W., & Brown, F. A. (2006). Leaving a sexually coercive dating partner: a prospective application of the investment model. *Psychology of Women Quarterly*, 30, 267-275.

Klusmann, D. (2002). Sexual motivation and duration of partnership. *Archives of Sexual Behavior*, 31, 275-287.

Kurdek, L. A. (2005). Gender and marital satisfaction in early marriage: a growth curve approach. *Journal of Marriage and the Family*, 67, 68-84.

Lawrence, E., & Bradbury, T. N. (2001). Physical aggression and marital dysfunction: a longitudinal analysis. *Journal of Family Psychology*, 15, 135-154.

Lawrence, E., & Bradbury, T. N. (2007). Trajectories of change in physical aggression and marital satisfaction. *Journal of Family Psychology*, 21, 236-247.

Leonard, K. E., & Senchak, M. (1996). Prospective prediction of husband marital aggression within newlywed couples. *Journal of Abnormal Psychology*, 105, 369-380.

Martin, E. K., Taft, C. T., & Resick, P. A. (2007). A review of marital rape. *Aggression and Violent Behavior*, 12, 329-347.

McLaughlin, I. G., Leonard, K. E., & Senchak, M. (1992). Prevalence and distribution of premarital aggression among couples applying for a marriage license. *Journal of Family Violence*, 7, 309-319.

McNulty, J. K., & Hellmuth, J. C. (2008). Emotion regulation and intimate partner violence in newlyweds. *Journal of Family Psychology*, 22, 794-797.

Meyer, S. L., Vivian, D., & O'Leary, K. D. (1998). Men's sexual aggression in marriage: couples' reports. *Violence against Women*, 4, 415-435.

Monson, C. M., Langhinrichsen-Rohling, J., & Taft, C. T. (2009). *In*:K. D. O'Leary & E. M. Woodin (editors), *Psychological and Physical Aggression in Couples: Causes and Interventions* (pp. 37-57). Washington, D.C.: American Psychological Association.

Murphy, C. M., & O'Leary, K. D. (1989). Psychological aggression predicts physical aggression in early marriage. *Journal of Consulting and Clinical Psychology*, 57, 579-582.

Norton, R. (1983). Measuring marital quality: a critical look at the dependent variable. *Journal of Marriage and the Family*, 45, 141-151.

O'Leary, K. D., & Williams, M. C. (2006). Agreement about acts of aggression in marriage. *Journal of Family Psychology*, 20, 656-662.

O'Leary, K. D., Barling, J., Arias, I., Rosenbaum, A., Malone, J., & Tyree, A. (1989). Prevalence and stability of physical aggression between spouses: a longitudinal analysis. *Journal of Consulting and Clinical Psychology*, 57, 263-268.

Saunders, D. G. (2002). Are physical assaults by wives and girlfriends a major social problem? A review of the literature. *Violence against Women*, 8, 1,424-1,448.

Schatzel-Murphy, E. A., Harris, D. A., Knight, R. A., & Milburn, M. A. (2009). Sexual coercion in men and women: similar behaviors, different predictors. *Archives of Sexual Behavior*, 38, 974-986.

Schumacher, J. A., & Leonard, K. E. (2005). Husbands' and wives' marital adjustment, verbal aggression, and physical aggression as longitudinal predictors of physical aggression in early marriage. *Journal of Consulting and Clinical Psychology*, 73, 28-37.

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, 65-98.

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, 149-160.

Straus, M. A. (1990). New scoring methods for violence and new norms for the Conflict Tactics Scales. *In*: M. A. Straus & R. J. Gelles (editors), *Physical Violence in American Families: Risk Factors and Adaptations to Violence in 8,145 Families* (pp. 535-552). New Brunswick: Transaction.

Straus, M. A. (2006). Future research on gender symmetry in physical assault on partners. *Violence against Women*, 12, 1,086-1,097.

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, 283-316.

Swan, S. C., & Snow, D. L. (2003). Behavioral and psychological differences among abused women who use violence in intimate relationships. *Violence against Women*, 9, 75-109.

Temple, J., Weston, R., & Marshall, L. L. (2005). Physical and mental health outcomes of women in nonviolent, unilaterally violent, and mutually violent relationships. *Violence and Victims*, 20, 335-359.

Testa, M., & Leonard, K. E. (2001). The impact of marital aggression on women's psychological and marital functioning in a newlywed sample. *Journal of Family Violence*, 16, 115-130.

Vivian, D., & Langhinrichsen-Rohling, J. (1994). Are bidirectionally violent couples mutually victimized? A gender-sensitive comparison. *Violence and Victims*, 9, 107-124.