



Published in final edited form as:

J Fam Violence. 2007 February ; 22(2): 101–111.

Observed Initiation and Reciprocity of Physical Aggression in Young, At-Risk Couples

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Abstract

The present study examined sex differences in initiation of physical aggression as observed during discussion tasks and in the likelihood of a similar response from the partner. In addition, patterns for men and women in the prevalence of aggression initiation and partner reciprocation across 4 time points spanning approximately 9 years from late adolescence through the mid-20s are examined, as well as overall associations with reported aggression and injuries. Findings indicated that the young women were more likely than the men to initiate physical aggression at late adolescence, but by the mid-20s in early adulthood there were no significant sex differences in initiation rates. The average rates of reciprocation across the 4 time points appeared to be similar for men and women. Women and men appeared more likely to report injuries if the couples observed physical aggression involved mutual aggression in their interactions.

Keywords

observed physical aggression; initiation; reciprocation; injury

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Whereas physical aggression toward a partner has been assumed to be a male-only phenomenon (Walker, 1989), recent studies have consistently found that women and men have engaged in some level of physical aggression toward a partner at relatively equal rates (Archer, 2000). Further, there is accumulating evidence that much physical aggression in couples' relationships is mutual (Capaldi et al., 2003; Cascardi et al., 1992, Stet & Straus, 1990). Johnson (1995) hypothesized that mutual physical aggression is related to commonly occurring couple conflict and generally involves less severe violence, whereas more frequent physical aggression (e.g., as reported by women in shelters) is predominantly one sided by men and more likely to result in serious injury. However, Capaldi and Owen (2002) tested this hypothesis by examining reported physical aggression for young, at-risk couples in which the man or woman showed frequent physical aggression toward a partner (in the range of shelter samples), and they found that the proportion of couples where both partners were frequently aggressive was six times

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The Cognitive, Social and Affective Development, National Institute of Child Health and Human Development (NICHD), and Division of Epidemiology, Services and Prevention Branch, National Institute on Drug Abuse (NIDA), National Institutes of Health (NIH), U.S. Public Health Service (PHS) provided support for the Couples Study (HD 46364). Additional support was provided by Grant MH 37940 from the Antisocial and Other Personality Disorders Program, National Institute of Mental Health (NIMH), U.S. PHS; Grant DA 051485 from the Division of Epidemiology, Services and Prevention Branch, NIDA, and Cognitive, Social, and Affective Development, NICHD, NIH, U.S. PHS; and Grant MH 46690 from the Prevention, Early Intervention, and Epidemiology Branch, NIMH, and Office of Research on Minority Health, U.S. PHS.

higher than expected by chance. It was also found that injuries were likely to have occurred for both partners at three times the rate expected by chance.

Some of the findings on women's use of physical aggression or mutual aggression in couples have been criticized by feminist theorists and battered women's advocates (Yllö, 1993), particularly with regard to lack of adequate consideration of the context in which women's physical aggression takes place. We contend that to learn more about the context and process of physically aggressive exchanges in couples, it is essential to understand the emergence of physical aggression in young couples. Of particular importance is understanding who initiates the physical aggression in the case of mutual aggression and the likelihood or pattern of partner responses. A further key issue is whether there are developmental changes in physically aggressive exchanges across time for couples in regards to prevalence and mutuality.

The issue of sex differences in initiation of physical aggression has been examined in prior work (DeMaris, 1992; Fiebert & Gonzalez, 1997; Stet & Straus, 1990), but to our knowledge this work has been largely limited to self-reports. Self-report has been recognized as particularly problematic in examining the processes involved in marital conflict (Markman et al., 1981). Reports are subject to a variety of biases (e.g., memory), and especially in the case of physical aggression, individuals may differ in their definition of the behavior in question. It is possible that many individuals do not consider minor physically aggressive exchanges as significant, may possibly barely notice them, and not report them. Another issue is social desirability, because physical aggression is socially sanctioned, individuals are likely to under report their own physical aggression against their partners (Swan & Snow, 2002).

An avenue that has not been explored adequately for examination of aggressive processes is observation of young couples' interactions. Observations of processes during problem-solving discussions have been found to differentiate violent and nonviolent couples in marital samples. Cordova et al. (1993) found that husbands and wives in distressed violent couples showed more aversive and less facilitative behavior than either distressed nonviolent or happily married couples. Through observations of young couples discussing issues that they have identified as causing conflict in their relationship, behaviors that may lead to physical aggression can be observed in naturalistic interactions that have ecological validity (Capaldi & Crosby, 1997). Although observation may affect the interaction to some degree, this bias may be no more serious and perhaps less serious than self-report biases. At a minimum, observational data provide a valuable complementary perspective to couple reports.

The present study examined sex differences in initiation of physical aggression as observed during problem-solving discussions and in the likelihood of a similar response from the partner. In addition, patterns for men and women in the prevalence of aggression initiation and partner reciprocation across four time points spanning approximately 9 years from late adolescence through the mid-20s were examined, as well as associations with reported aggression and overall associations with injuries. Questions were addressed using a sample of young, at-risk men who had been involved in a longitudinal study since age 9–10 years. These men were at-risk for antisocial behavior in that they were from schools in neighborhoods with a higher than usual incidence of delinquency for the medium-sized metropolitan area. In late adolescence, the young men and their romantic partners were invited to participate in an ongoing study of young couples' relationships. At approximately age 18 years -- the first time point included in this study -- physical aggression occurred relatively frequently, with 55% of couples observed to use some such aggression (Capaldi & Crosby, 1997). However, the rate and number of occurrences was still relatively low for testing hypotheses pertaining to such issues as sex differences in reciprocation of physical aggression. Two factors enhance the significance of this study despite this drawback. First, observed physical aggression is a rare opportunity to gain insight into patterns of initiation and reciprocation of aggression; thus, it is critically

important to make such data available even if it remains largely at a descriptive level. Second, four time points are now available in the ongoing longitudinal study, resulting in a larger number of observed occasions of physical aggression. Finally, we used an approach that is a combination of descriptive statistics and hypothesis testing to make the best use and characterization of the interactions.

Mutuality, Initiation, and Consequences of Aggression

We have argued that aggression in couples is part of a process between the partners and, therefore, that a dyadic model is required for understanding the development and course of aggression (Capaldi et al., 2003). Men and women report engaging in mutual violence for one half of couples with any violence, with violence by women only and men only occurring at an equal rate in the remainder of the cases (Brush, 1990; Morse, 1995; Stet & Straus, 1990). These findings were also supported by studies of community samples where adolescent dating couples showing any physical aggression toward a partner reported rates of bidirectional aggression as high as 59% to 71% (Gray & Foshee, 1997; Henton et al., 1983).

Many believe that motivations for women's violent behavior are different from those of men, and they view women's use of aggressive behavior mainly as a response to the partner's past or immediate violence or retaliation (Swan & Snow, 2003). Information regarding the context in which physical aggression takes place among couples is rarely obtained; thus, it is very difficult to determine who initiates the violent encounters or how an act leads to escalated aggressive interchanges in couples. Aggressive characteristics of the partner may tend to support or to evoke aggressive characteristics of the individual (Buss, 1987; Scarr & McCartney, 1983). Aggressive responses may be evoked by verbal aggression (e.g., threats and jealous accusations may be responded to with similarly aggressive responses) or by physical aggression (e.g., if one partner hits, the other may hit back). Watson et al. (2001) found that physical and verbal aggression was a common response that high schoolers reported to physical aggression in their dating relationships, endorsed by 35% of the sample.

Men and women in mutually aggressive couples report about equal frequency and severity of physical aggression perpetrated and sustained (Gray & Foshee, 1997; Henton et al., 1983) and that they were equally responsible for initiating the behavior (Henton et al., 1983). There is evidence, however, that slightly more women than men initiate physical aggression against their partners (Morse, 1995; Stet & Straus, 1990). Findings from community samples of college students also indicated that women were more likely to be identified as the usual initiator of physical aggression (DeMaris, 1992) and that men were more likely to report using physical aggression in retaliation for being hit first than were women (Follingstad et al., 1991).

A few studies have indicated that women may use physical aggression against their partners in self-defense or retaliation (Barnett et al., 1997; Makepeace, 1986), but some others also use aggression to intimidate or to control their partners (Makepeace, 1986; Swan & Snow, 2003). In a study of a clinical sample of 118 women, Swan and Snow (2003) found that only 9% of the women characterized as predominantly victims initiated violence, whereas 83% of the women characterized as abused aggressors reported initiating violence against their partners. In couples showing more mixed patterns of violence and coercion, about two thirds of the women reported that they are the first to use violence.

One of the most imperative concerns regarding the mutual violence or the women's use of violence against their partner is that the physical consequences for women are far more severe than those for men (Stets & Straus, 1990). Feld and Straus (1989) found that when the woman engaged in physical aggression the probability of the violence in couples was likely to persist or escalate in severity over a 1-year period. Capaldi and Owen (2001) also found that when the young woman was frequently aggressive toward her partner, according to her own and her

partner's reports, she herself had a three times greater likelihood of injury and she also had a higher probability of more frequent and severe injuries. Gray and Foshee (1997) found that partners in mutually aggressive couples report sustaining and initiating greater amounts of physical aggression, more types of physical aggression, and more injuries than those reporting unidirectional physical aggression in their relationship.

Physical Aggression Toward a Partner Over Time

Rates of physical aggression toward a partner have been found to be highest at young ages and to decrease with time (Gelles & Straus, 1988). Using National Youth Study data, Morse (1995) found that more than one half of the couples (55%) reported any physical aggression toward a partner in the past year at age 18 to 24 years, but this prevalence declined over the ensuing 10 years to 32%, with a decrease in prevalence with age for men (37% to 20%) and women (48% to 28%). Using cross-sectional data, O'Leary (1999) estimated that physical aggression by men toward their women partners rises sharply from ages 15–25 years, to a peak at around age 25 years, with a sharp decline to about age 35 years. The rise to age 25 years may reflect the fact that many more individuals are engaged in romantic relationships at age 25 years than age 15 years. For individuals in a relationship, the peak engagement in aggression toward a partner may be at the younger ages (controlling for length of relationship), with a gradual decline after about ages 18–21 years. Measurement of prevalence by age is complicated by the fact that the characteristics of those in relationships versus not partnered may differ by age. Youth showing higher levels of risk seem to enter relationships at younger ages than less at-risk youth.

The association of age and the prevalence of physical aggression toward a partner may differ by sex. In a meta-analysis of sex differences in aggression, Archer (2000) found a higher prevalence of female than male physical aggression for the younger age group (ages 14–22 years) and a higher prevalence of aggression for men than women in the older age group (ages 23–49 years). We have speculated that one function of physical aggression in young couples may be to break down the barriers to physical intimacy caused partially by shyness and unfamiliarity (Capaldi & Gorman-Smith, 2003). Women may particularly take the lead in this regard to signal to the man that they are ready for approach and perhaps because physical aggression is more socially sanctioned for men than for women. Such exchanges may be playful and occur during horseplay and playful disagreements, similar to rough-and-tumble play in children and among siblings. However, the pattern may extend into less playful and more serious disagreements. In prior work with the current sample of adolescent couples, we observed a number of couples using playful and nonplayful aggression (Capaldi & Crosby, 1997). Gergen (1990) discussed conclusions from animal studies on play fighting, which indicate that it is useful as a means of social development, preparing the young for social communication and sexual intercourse as well as for fighting. In a study of college students, Gergen found that almost all young men and women reported engaging in play physical aggression with the opposite sex and that levels of play physical aggression were associated with nonplayful physical aggression. Gergen found evidence that “women are able to cross the physical boundary to “invade” men’s body zones more easily than men are” (p. 394). Once sexual intimacy becomes more established, women may play a lesser role in initiation. Therefore, it is possible that women would show higher levels of initiation at late adolescence, dropping to more equal levels of initiation for men and women by the late 20s. Archer also examined sex differences in injuries. Studies with samples at younger ages (ages 14–22 years) were associated with almost equal injury rates, whereas studies using older age samples found higher rates of infliction of injuries by men, but still with a significant proportion of injuries sustained by men.

Hypotheses and Study Questions

In the present study, the first question addressed was that of sex differences in the observed rates of initiation of physical aggression toward a partner. It was hypothesized that women would be more likely than men to initiate physical aggression in late adolescence, but that by the mid-20s, there would no longer be a significant difference. Second, descriptive data on rates of reciprocation of physical aggression at the four time points for men and women were examined. Due to lack of prior theorizing or evidence regarding the probability of reciprocation by men versus women, no directional hypotheses were made. Next, the association of observed and reported physical aggression was examined. It was hypothesized that individuals reported by self or partner to exhibit any physical aggression would show higher levels of observed aggression. Finally, descriptive statistics regarding the rates of injuries reported by the men and women averaged across the three time points for which such data were available (Time 2 through Time 4) were examined for five groupings according to observed aggression; namely (a) neither partner observed to aggress, (b) only the man observed to aggress, (c) only the woman observed to aggress, (d) man initiates and woman reciprocates, and (e) woman initiates and man reciprocates. Injuries are relatively infrequent, and thus rates were averaged across time points to provide more reliable information. Alternative hypotheses were considered. If aggression is mainly male driven, then the highest prevalence of injuries to the women would be in the two groups where the man initiates aggression. In contrast, it was predicted that aggression is partly female driven, thus it was expected that the highest prevalence of injuries for men and women would be in the two groups involving mutual aggression.

Method

Participants

The present study used data from the Oregon Youth Study (OYS), a community-based sample of 206 young men at risk for delinquency and the Couples Study of the OYS men and their intimate partners. The OYS is an intensive multiagent, multimethod longitudinal study in which participants were recruited through fourth-grade classes (ages 9–10 years) in higher crime areas of a medium-size metropolitan region in the Pacific Northwest. The sample was 90% Euro-American and 75% lower and working class. The OYS young men have been assessed annually, and the retention rate of the original 206 men was 94% in the 18th year of data collection.

The Couples Study of the OYS men is another multiagent, multimethod longitudinal study in which the OYS men and their partners were assessed four times over the years; late adolescence (age 17–20 years), young adulthood (ages 20–23 years), and early adulthood (ages 23–25 and 25–27 years). For the present study, data from all four waves were used. Couples Time 1 (T1) and Time 2 (T2) data were collected over a 3-year period (T1 during Year 9, 10, or 11 of the OYS, and T2 during Year 12, 13, or 14 of the OYS, depending on the OYS men's relationship status) to allow higher rates of participation. Time 3 (T3) and Time 4 (T4) data were collected over a 2-year period (OYS Year 15 or 16 for T3 and Year 17 or 18 for T4), as more men were in a relationship. Demographic information of the participants at each time point is presented in Table I.

Procedures

Assessments for the OYS included parent and the young man interviews, self-report questionnaires, and interviewer ratings. Assessments for the Couples Study included a separate interview and questionnaires for the OYS men and their partners and a videotaped session composed of a series of interactive tasks that varied somewhat across the four time points. At T1 the total discussion was 36 minutes long and included a warm-up task (7 minutes; the couple had to imagine they were lost in the Oregon desert and rank items for survival), party planning

(5 minutes), problem-solving discussions (5 minutes for each partner's issue related to the relationship), and finally a discussion of general dating issues (7 minutes) and marriage issues (7 minutes). At T2 and T3, the total discussion was 34 minutes long and included similar warm-up tasks (5 minutes) and the party-planning segment at T1. The problem-solving discussions were extended to 7 minutes for each partner's issue. The final two general discussions were replaced with discussions of each partner's personal goals (5 minutes each). There was an additional discussion segment on discipline for couples with children. At T4 a 5-minute discussion session on how they met was added. In the present study, all of the discussion sessions, except the discipline session, were included.

The most frequently picked topic at late adolescence was partner's jealousy (chosen by approximately 15% of both young men and women), followed by the issue of where to go when going out together (about 10% of both men and women) (Capaldi et al., 2004). For the young women, the next three ranked topics were not having enough money for dates/activities, not liking the way her partner drinks smokes or uses drugs, and having a hard time talking to each other. The next three ranked topics for the young men included the money and partner's substance use, and also included not liking some of his partner's friends. At the later time points (T2 and T3, ages 20–23 and 23–25 years for the young men), partner's jealousy dropped somewhat lower in the rankings. Not having enough money for activities was the most frequently picked topic by young women and men at both of these assessments. At the last time point (T4, ages 25–26 years for the men), jealousy was rarely endorsed. The highest-ranking problems for the men and women were never having enough money and where to go when going out together. The third most often chosen problem for the women was the partner not doing his share of household tasks and for the men was the partners' not sharing interests or hobbies. For further information regarding the discussion tasks, see Capaldi and Crosby (1997) and Capaldi et al. (2003).

Measures

Coding of the interaction tasks—The Peer Process Code (PPC; Dishion et al., 1995; Capaldi et al., 2003) was used to code the couples' videotaped task at T1. A minor modification of the code, the Family and Peer Process Code (FPPC; Stubbs et al., 1998), was used at T2, T3, and T4. Both codes were developed for the OYS and Couples projects based on the Family Process Code, which has been described in many publications (e.g., Patterson et al., 1992). FPPC was developed to provide more finely grained coding categories for some behaviors. Thus, whereas PPC has one code for physically aggressive behavior, FPPC has two codes (i.e., moderate and severe physical aggression), and the PPC code for impersonal talk became three codes in FPPC (i.e., positive talk, talk, and negative talk). Because FPPC is an expansion of PPC, its codes can be collapsed back to compare to PPC. Both codes are very similar, thus only FPPC is described in the following coding descriptions. Twenty-five interpersonal content codes and six affect codes described each interaction. Content and affect were independent so that any affect could modify any content code. The content codes were sampled from verbal, vocal, nonverbal, physical, and compliance behaviors and were judged a priori as having a positive, neutral, or negative impact. All interactive physical behavior was in one of three categories: affectionate touching/holding (e.g., holding hands), physical interaction (e.g., combing hair, arm wrestling), and physical aggression (i.e., any aversive physical contact). One of six affective ratings was assigned to each coded behavior based on a combination of tone of voice, body posture, and facial expression. The six affect categories are happy, caring, neutral, distressed, aversive, and sad. In this study, the affects were collapsed into positive (i.e., happy and caring), neutral, and negative (i.e., distressed, aversive, and sad).

To assess coder reliability at each wave, a minimum of 14% of the taped tasks was randomly selected to be coded independently by two coders. Kappas were computed for the overall

contents and affects as well as the specific content and affect cluster comprising physical aggression. At T1, the overall content kappa score (Cohen, 1960) was .76 and the physical aggression kappa score was .68. At T2, the overall content and affect kappa scores were .75 and .73, respectively. Kappa for the physical aggression cluster was .65. T3 overall content kappa was .76 and affect kappa was .81. The physical aggression kappa score was .56. T4 content and affect kappa scores were .80 and .82, respectively. Physical aggression kappa was .53. Physical aggression was a rare occurrence in T3 and T4 reliability observations. Note that all coders were professional research assistants. Initial coder training took approximately 3 months.

Reported physical aggression—The men and their partners were given a questionnaire from the National Survey of Health and Stress (Kessler, 1990). Each partner reported on his or her own physically aggressive behavior as well as the partner's with two questions (e.g., 'When you and your partner have a disagreement, how often do you or your partner push, grab, or shove the other' and 'When you and your partner have a disagreement, how often do you or your partner kick, bite or burn the other'). The mean of self- and partner reports was combined to form indicators of physical aggression for each partner. According to either men's or their partner's report, 30.5% of the young men had at least one incident of physical aggression toward a partner (such as pushed, punched, threatened with knife or gun, etc.), as did 35.5% of their partners at T1. At T2, 31% of the men and 39.9% of their partners perpetrated at least once. At T3, 23.5% of the men and 27.7% of their partner and at T4 18.6% of the men and 23% of their partner reported incidents of physical aggression.

Observed physical aggression—The physical aggression microsocial score used in this study included both intensities (moderate and more severe) of aversive physical contact in only neutral or negative affect (i.e., cases in positive affect were excluded). The range of physical behaviors counted as aversive were the same as those included on the Conflict Tactics Scale (Straus et al., 1996). Severity of physical aggression in the couples' tasks ranged from a slight shove to hard hits (e.g., shoving the partner on the shoulder so that their elbow fell off the chair, poking with a pencil, hand slaps, kicks, hitting across the head). To use a more conservative estimate of physical aggression, aversive physical contacts in positive affect were excluded, because they mostly involved no force and may be less likely to be considered even mildly aggressive by either partner. Note that at T1, 3% of men and 10% of women were observed to use physical aggression only in positive affect (i.e., they used physical aggression in positive affect but were not observed to use any physical aggression in neutral or negative affect).

Injury—In the interview at T2, T3, and T4, each partner was asked the following questions regarding being hurt by their current partner and sustaining injuries. First, they were asked if their current partner had ever physically hurt them. If they responded affirmatively, they were asked how many times their partner had physically hurt them. They were then asked to describe what were the worst injuries they had from anything their partner did, with a follow-up question asking, "Do you think that this happened because of horseplay between the two of you, or do you think that he/she did it on purpose?" If they indicated that the injuries were accidental, they were asked if there was any other occasion. The yes-no responses were coded so that 1 = yes and 0 = no. As reported by Capaldi and Owen (2001) for T2, injuries were quite varied, with bruises, scratches, and cuts that bled (e.g., a bloody nose, biting the tongue and inside of the mouth when hit) being the most common. The three most severe cases of injuries at that time point (as indexed by the need for medical attention, loss of consciousness, and sustaining a fracture) were all sustained by women.

Results

Observed initiation of physical aggression in the young couples by sex across time

The first questions addressed pertained to whether there were sex differences in the prevalence of initiation of physical aggression and whether such sex differences changed over time. Initiation at each of the four time points was defined as the first occasion during the entire discussion session of the use of physical aggression (as defined in the Measures section). It was hypothesized that women would show a higher prevalence of initiation at the younger ages, but that rates of observed initiation for the women would decrease over time. Shown in Table II are the proportions of young men and women observed to use physical aggression toward their partner during the observed discussion sessions for each of the four time points. Chi-square tests were conducted separately for each of the four time points. The expected number of cases was set to the observed number for the category "Neither," and the remaining cases were set to be divided equally between initiation by the man and the woman. In other words, the null hypothesis was of no difference between men and women in rates of initiation. Significant Chi-square values were found for the first three time points, indicating significant differences in rates of initiation between men and women for those time points, but not for T4. Women were observed to initiate physical aggression in neutral or negative affect at four times the rate of the men at T1. The rate of initiation by women was two to three times higher at T2 and T3, but relatively equal at T4. Therefore, the findings indicated that women showed higher levels of physical aggression than the men at the earlier ages, but more equal levels by age 26 years.

Reciprocation of physical aggression by age and sex

Next, reciprocation rates for physical aggression toward a partner were examined. Reciprocation was defined as the observation during the discussion task of physical aggression when this occurred at some time after a similarly defined physical aggression by the partner (i.e., an initiation, as described above). Note that the partner's physical aggression might not have come in immediate response to the initiation, but might have been at some later time during the discussion. Shown in the first column of Table III are the proportions of the total sample at each time point where the man was observed to initiate physical aggression toward the partner, and shown in the second column is the rate of later reciprocation by the woman. Similar findings regarding the young men's reciprocation of the young women's physical aggression are shown in Columns 3 and 4. Note that the absolute numbers of those observed to use physical aggression, particularly mutual physical aggression, in the sample are relatively low, although the availability of four time points increases the overall reliability of the findings.

As can be seen in Table III, the probability of reciprocation appeared to be relatively equal for men and women at T1 and T2, with one fifth to one fourth of the initiations meeting with a later physical aggression from the partner. Rates were more varied in the last two time points. However, totaling events and calculating reciprocation across the four assessment time points, the probability that women reciprocated a physical aggression initiated by the man was .26, and the probability that the man would reciprocate the woman's physical aggression initiation was .24, which was highly similar. However, as the women were more likely to initiate physical aggression at the first three time points (see Table II), these similar reciprocation rates resulted in a substantial difference between the men and women in the proportion of physically aggressive acts that were in response to the partner. Of the total of 85 observation sessions in which physically aggressive acts were perpetrated by men, all the men's aggression followed women's prior aggression in 41% of the sessions. Of the 170 observation sessions in which physically aggressive acts were committed by women, only 8.2% involved sessions where all the women's physical aggression came only after physical aggression by the partner. Limiting consideration to the total of 49 observation sessions across the four time points involving

mutual physical aggression, 71.4 % involved male reciprocation of female initiated aggression, and 28.6 % involved female reciprocation of male initiated aggression.

The association of observed and reported aggression

It was predicted that higher levels of physical aggression would be observed for those men and women reported by either partner to use physical aggression. To examine this question, the mean levels of observed aggression were compared for two groups, those reported to use any physical aggression toward a partner versus those not reported to do so, using oneway analyses of variance. Findings are shown in Table IV. Of the eight comparisons (four time points for men and women), five were significant at the .05 level and one showed a trend towards significance ($p < .10$). Thus, there was evidence of an association of observed with reported aggression for men and women.

Observed aggression and the probability of injury

Next, the associations of observed aggression and injury and sex differences in the associations were examined. Alternative hypotheses were examined. If aggression toward a partner is mainly male-driven, then the highest prevalence of injury to the women partners should be found for Groups 2 and 4 (where the man was observed to initiate aggression). If aggression is partly female-driven, then a relatively high prevalence of injuries to women would be expected in Group 5 (where the woman initiates aggression and the man responds), and the highest levels of injuries would be expected for the two mutually aggressive groups (4 and 5). At T2, T3, and T4, the young men and women reported on whether they had ever received a nonaccidental injury from their partner. Due to the relatively small group sizes and low prevalence of injury, the average prevalence of injury across these three time points was examined to improve reliability, but because of this, significance tests could not be conducted as some cases involved participants reporting injuries at multiple time points.

Findings (shown in Table V) indicated that the average prevalence of injuries toward women across the three time points was approximately 15% when only the man was observed to use physical aggression and 27% when the man initiated but the aggression was mutual. The group in which the highest prevalence of ever having been injured on average across the three points was reported by women was the group where mutual physical aggression was observed that was initiated by the woman (36% prevalence of injuries on average). Note that in the two groups where mutual physical aggression was observed, women reported the highest prevalence of experiencing injury, at about twice the rate across the two groups than for any other group.

The highest prevalence of injuries for men were also experienced in the two groups observed to engage in mutual aggression, and the levels of male injury appeared relatively similar across those two groups. Similar to the finding for women, the prevalence of injury for men in the two groups where mutual physical aggression was observed was about twice that of any of the other groups.

Discussion

Sex differences in prevalence rates of physical aggression in couples have been examined in numerous studies, yet relatively little is known about the initiation and reciprocation rates of such aggression, or how such patterns between partners progress over time. The present study used observational data to examine whether men or women was more likely to initiate and reciprocate physical aggression during discussion sessions, and whether this pattern changed across late adolescence and young adulthood. Findings indicated that women were more likely to be observed to initiate physical aggression than men during late adolescence and young adulthood, but the differences were not significant at age 26 years, which appeared to be due

to a decrease over time in the prevalence of aggression by the women. However, across the four time points, men and women appeared to reciprocate physical aggression initiated by their partner at relatively equal rates. Overall, a higher proportions of men's aggression was in response to women's aggression, given that women were more likely to initiate aggressive acts. Levels of observed physical aggression showed significant associations with reports of any physical aggression toward a partner. This is somewhat surprising given the limited sampling of behavior obtained during the observed discussions, and it provides evidence of the value of observational data for understanding processes in couples' aggression. Regarding injury, women appeared most likely to report injury when the aggression was mutual, with the highest prevalence of injury reported for couples where the observed aggression was mutual and initiated by the women. Men also seemed to have experienced higher levels of injuries when the physical aggression was mutual. The description of reciprocation and injury findings should be considered with caution because significance tests were not conducted for reciprocation rates or injury prevalence.

Findings from previous studies have indicated that women tend to initiate physical aggression as often or more often than men (DeMaris, 1992; Follingstad et al., 1991; Stets & Straus, 1990). The present study confirmed such findings; women's rate of initiation was at least two times higher than men's in late adolescence and young adulthood. In addition, as hypothesized, the sex differences decreased over time. Capaldi and Gorman-Smith (2003) suggested that one function of physical aggression in young couples may be to break down the barriers to physical intimacy, and women may take the leading role. It has been observed that couples, especially young couples, tend to use playful as well as nonplayful aggression during discussion sessions (Capaldi & Crosby, 1997). It is possible that some of these exchanges may extend into less playful and more serious disagreements. This may be especially true for individuals and couples who are higher in levels of antisocial behavior (Kim & Capaldi, 2004), because antisocial behavior has been associated with difficulty with boundaries between play and more impactful aggression in childhood. It is likely that lower-risk young couples also engage in playful aggression, but are more adept at limiting their aggression. Once sexual intimacy patterns become more established, women may play a lesser role in initiation. Jealousy may be another important factor in aggression between partners, especially among young couples. Harned (2001) found that women were more likely to report anger/jealousy as the main motive for using physical aggression against their partners. For the present sample, the most frequently chosen topic for the problem-solving sessions in late adolescence was jealousy, but this was chosen less frequently at later ages. For young couples, relationships are relatively unstable; therefore, partner commitment is not assured. Thus, conflicts around jealousy and insecurity are bound to occur. Women's physical aggression is more tolerated than men's (Straus, 1997); therefore, young women may feel free to be more expressive during such conflicts than young men.

Consistent with findings relating age with decreases in women's aggression are studies documenting that among dating couples more women than men tend to report using violence, but for married or cohabiting couples, the aggression rates by women seem to be about equal to those of men (Sugarman & Hotaling, 1989). In the present study, the relationship status of the men changed dramatically across the approximately 8-year period, from 4% to 42% married. Thus, the nature of the intimate relationships changed considerably, likely reflecting normative changes for young adults from similar socioeconomic (SES) and European-American backgrounds. Findings regarding couples' aggression in a cohort sample unselected for relationships status (versus married, cohabiting, or dating) should be more strongly representative of the population as a whole for that age group. In general, findings regarding development and outcomes for the OYS men have been comparable to other studies with representative community samples that include families from lower as well as middle SES families (e.g., Capaldi et al., 1996), and the findings of the present study are in keeping with

findings from nonrisk samples (e.g., Gergen, 1990). However, the extent to which these findings would generalize to youth with differing backgrounds, particularly to youth from differing cultural or ethnic backgrounds, is not known and should be examined in future research.

The comparable rates between men and women in reciprocation of physical aggression indicate the dyadic nature of violence for many couples. Nonplayful physical aggression toward a partner is most likely to occur during arguments (e.g., Cascardi & Vivian, 1995), and significant associations are found between men and women's physical aggression (e.g., Kim & Capaldi, 2004). Furthermore, Capaldi et al. (2003) found that women's physical aggression was as strong a predictor of men's future aggression as was his own aggression. Similarly, O'Leary and Slep (2003) found that one partner's physical aggression was the best predictor of the other partner's later physical aggression. Although these various studies have indicated the importance of studying physical aggression among couples in the context of dyadic relationships, as yet we know very little about partners' influences on physical aggression. The reciprocal nature of physical aggression among couples found in the present study confirms the need to move our focus from solely men's aggression toward dyadic influences and processes by which couples' interactions escalate to physical aggression and then from initiated aggression to severe occurrences. By focusing on relationship processes (in addition to individual characteristics) that put the couple at risk, intervention efforts can be more effective in reducing violence in couples.

The evidence that men's aggression toward partners tended to be in response to their partners' aggression confirms findings of other studies that suggested that women's engagement in physical aggression may put them at increased risk of severe physical aggression by their partners (Feld & Straus, 1989). In fact, some studies showed that men reported using physical aggression toward a partner in retaliation for being hit first (Follingstad et al., 1991). Our findings regarding injury also support this argument; women appeared to have a high likelihood of injury when the women were observed to initiate, but the aggression was mutual. Several other studies suggest that when women engage in physical aggression they experience significant levels of physical injury inflicted by their partners (e.g., Swan & Snow, 2003).

As a critical step toward a better understanding of physical aggression between partners, the present study examined initiation and reciprocation of physical aggression for men and women over time, using observational data. Although the prevalence rates of physical aggression were relatively low, which limited statistical testing, observational data on couples' interactions over four time periods provided a valuable opportunity to gain insight into patterns of initiation and reciprocation of aggression in dyads. Lawrence (2002) argued that observational data would provide a closer examination of aggression between partners by allowing us to look into other related constructs, including communication skills and affect displayed during interactions. The present study offers support for the use of observational data to examine the direct context and development of physical aggression between partners across time. The findings also indicate the need to examine physical aggression among couples in context and to put more focus on the processes of aggressive interchanges between partners. Dyadic processes involved in aggression must be a key focus, particularly for young couples as their relationships are more volatile and partner's influence may play a larger role than in established adult relationships.

The findings of this study are highly informative for prevention programs. From late adolescence through approximately age 24 years, women were more likely than men to initiate physical aggression, both sexes tended to reciprocate at similar rates, and observed mutual aggression appeared to be associated with the highest prevalence of injuries. If replicated, these

findings indicate the importance of considering both men and women partner's aggression in prevention and treatment programs.

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Table I

Demographic Information for Each Time Point

	T1 (<i>n</i> = 118)	T2 (<i>n</i> = 157)	T3 (<i>n</i> = 147)	T4 (<i>n</i> = 158)
Age in years				
OYS men	18.7	21.3	24.1	26.0
Partners	18.2	20.8	23.1	24.9
Length of relationship in weeks	48.6	82.3	149.3	180.8
Relationship status (<i>n</i>)				
Dating	82	71	41	31
Cohabiting	31	58	55	60
Married	5	28	51	67

Table II
Observed Initiation of Physical Aggression in Neutral and Negative Affect by Gender

	Neither (%)	Man (%)	Woman (%)	χ^2 (2)	<i>p</i>
T1 (\underline{n} = 118) (18 yrs)	44	10	46	26.7	< .001
T2 (\underline{n} = 157) (21 yrs)	62	10	28	13.1	< .001
T3 (\underline{n} = 147) (24 yrs)	73	7	20	10.0	< .01
T4 (\underline{n} = 158) (26 yrs)	81	8	11	1.2	N.S.

Table III
Initiation and Reciprocation of Physical Aggression in Neutral and Negative Affect

	Man initiation (%)	Woman reciprocation rate	Woman initiation (%)	Man reciprocation rate
T1 (18 years)	10	.25	46	.24
T2 (21 years)	10	.25	28	.20
T3 (24 years)	7	.10	20	.30
T4 (26 years)	8	.50	11	.22

Table IV

Reported Physical Aggression

Coded physical aggression	Yes		No		<i>F</i>	<i>p</i>
	Mean	<i>SD</i>	Mean	<i>SD</i>		
T1 Male	.035	.085	.010	.042	4.37	.039
T1 Female	.070	.145	.031	.055	4.53	.036
T2 Male	.014	.032	.006	.017	4.54	.035
T2 Female	.030	.063	.016	.032	3.52	.063
T3 Male	.017	.049	.005	.017	4.48	.036
T3 Female	.021	.043	.014	.035	.890	.347
T4 Male	.009	.033	.005	.018	1.01	.317
T4 Female	.029	.097	.007	.023	5.53	.020

Table V
Observed Aggression and Prevalence of Injury from T2 Through T4

Observed Initiation of Aggression	Man injured (%)	Woman injured (%)
1 Neither	11.5	14.2
2 Him only	11.1	14.8
3 Her only	8.6	7.1
4 Both - him first	18.2	27.3
5 Both - her first	22.7	36.4