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## A Further Look at the Intergenerational Transmission of Violence: Witnessing Interparental Violence in Emerging Adulthood

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### Abstract

The intergenerational transmission (IGT) of violence has been a main theoretical consideration to explain the link between interparental aggression in the family of origin and intimate partner violence (IPV) in subsequent intimate relationships. Studies have examined this theoretical link based on self-reports of interparental violence witnessed during childhood and adolescence. However, no study has examined whether emerging adults who currently witness interparental violence are more likely to exhibit violence in their own intimate relationships. Data were analyzed from undergraduate students ( $N = 223$ ) attending an ethnically diverse Southern California university. Multivariate linear regression analyses were used to examine the impact of witnessing interparental violence on the physical and psychological IPV experienced in emerging adult relationships. The joint effects of witnessing both forms of interparental violence were also tested. Support for the intergenerational transmission of violence was identified for specific types of violence. Future directions of study and implications for prevention and treatment are offered.

### Keywords

intimate partner violence; interparental violence; social cognitive theory; intergenerational transmission; emerging adulthood

### Introduction

The etiology, prevention, and treatment of intimate partner violence (IPV) have been examined for more than three decades. However, a need for further empirical study of IPV was recognized as urgent a decade ago (Bell et al., 1996; Fischbach & Herbert, 1997) and has more recently developed attention as a major public health problem (Coker et al., 2002). This is likely due to its extensive scope, closeted nature, and its damaging impact on the family unit and social system. IPV is a repeated pattern of physical, psychological, and/or sexual abuse against an intimate partner to gain control or compliance over a victim through fear tactics (Centers for Disease Control and Prevention, 2006; Warshaw & Ganley, 1998) and occurs in both adolescent and adult relationships. Reasons given by both genders for

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### Declaration of Conflicting Interests

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using aggression against a partner include an inability to express oneself verbally, anger and tension release, a desire to feel powerful, to gain control, to prove love, and to get attention (Hamberger, Lohr, Bonge, & Tolin, 1997; Harned, 2001).

Annually, 4.8 million women are victims of intimate partner–related physical assaults and rapes, and 2.9 million men experience intimate partner physical assaults (Tjaden & Thoennes, 2000). Although past studies often focus on measuring physical IPV and its consequences, psychological abuse has also been found to share similar characteristics of physical violence. Research has demonstrated that psychological abuse (i.e., violence that directly impairs the victim’s psychological health such as insults, threats, and destruction of property) appears to have as great, if not greater, negative impact on victims than does physical violence (O’Leary, 1999). Coker et al. (2002) found that among those ever experiencing physical IPV, 88% also experienced psychological violence. Moreover, among those ever experiencing IPV, 25% solely experienced psychological violence. Perpetrators of violence include a spouse, ex-spouse, or current or former boyfriend/girlfriend, and IPV occurs in both heterosexual and same-sex couples. Both genders are victims of physical and psychological IPV, but women are more likely than men to suffer physical injuries from IPV (Brush, 1990; Rand, 1997; Rennison & Welchans, 2000). For example, Anderson (2002) found that 10% of all couples reported some type of mutual violence in the last year, and for 2% of the couples only the woman was violent, and for 1%, only the man was violent (a meta-analysis by Archer, 2000, supports these findings). Both physical and psychological IPV have been associated with detrimental mental and physical health consequences (Campbell et al., 2002; Coker et al., 2000), problems with accessing health care (Eisenman, Cunningham, Zierler, Nakazono, & Shapiro, 2003), and increased sexual risk, notably HIV transmission.

### **Intergenerational Model of Violence**

Langhinrichsen-Rohling (2005) highlighted the top 10 most important research findings and future directions in the IPV field to date, and contained within this list was furthering the understanding of the intergenerational transmission (IGT) of violence. Due to the theoretical importance of the IGT of violence, witnessing interparental violence in the family of origin has pervaded the research literature to explain the etiology of IPV (Egeland, 1993; Hotaling & Sugarman, 1986). The concept, IGT of violence (Kalmuss, 1984), found much of its theoretical impetus from early studies examining aggression used by children that shed light on violence as a socially learned behavior (Bandura, 1971, 1973, 1986), and illustrates the link between a history of witnessed interparental violence and violence enacted in subsequent generations of children. Through social learning processes such as observational learning, violence is used as a habitual response to conflict with intimate partners through channels of learned behavior (Bandura, 1986; Widom, 1989). This social learning model depicting a guide for IPV behaviors is argued persuasively in the literature (Bandura, 1971; O’Leary, 1988).

Because the family is a main socializing institution and the main source of childhood learning, aggression modeled between parents not only provides scripts for violent behaviors but also teaches the appropriateness and consequences of such behavior in an intimate relationship to children through direct and vicarious reinforcement of rewards and punishments (Bandura, 1973). Considering this, modeled behavior is more likely to be adopted if the behavior is perceived to result in advantageous outcomes with few negative consequences. Interestingly, observed outcomes influence behavior in much the same way as do directly experienced consequences (Bandura, 1971). Thus observers may regulate their violent behavior based on the success and mistakes of others. If children observe more functionally positive than negative consequences of interparental violence, positive outcome expectations for using the behavior are cognitively developed. For example, children may

learn that violence is an effective means of conflict resolution with intimate partners (Ehrensaft et al., 2003) or a means of gaining control. In addition, children with violent parents may not have the opportunity to socially learn the positive consequences of methods such as negotiation, verbal reasoning, self-calming tactics, and active listening (Foshee, Bauman, & Linder, 1999) that are conducive to effective communication and conflict resolution.

### Empirical Evidence of Transmission

Evidence supporting the IGT of violence theory has been accumulated for married couples as well as dating relationships for both adolescents and emerging adults (Ballif-Spanvill et al., 2007; Breslin, Riggs, O'Leary, & Arias, 1990; Carr & VanDeusen, 2002; Craig & Sprang, 2007; Dubow, Huesmann, & Boxer, 2003; Ehrensaft et al., 2003; Foshee et al., 1999; Kwong, Bartholomew, Henderson, & Trinke, 2003; Stith et al., 2000; Whitfield, Anda, Dube, & Felitti, 2003; Yexley, Borowsky, & Ireland, 2002). For example, large-scale studies have reported clear evidence of an IGT of marital aggression (Doumas, Margolin, & John, 1994; Pagelow, 1981; Straus & Gelles, 1986; Straus, Gelles, & Steinmetz, 1980). Considering adolescents, between 7% and 15% of youths have experienced serious physical victimization by an intimate partner (Avery-Leaf, Cascardi, O'Leary, & Cano, 1997; Bergman, 1992; Coker et al., 2000; Silverman, Raj, Mucci, & Hathaway, 2001), and social learning of violence has been supported in varying degrees for this cohort (O'Keeffe, Brockopp, & Chew, 1986; Schwartz, O'Leary, & Kendziora, 1997). For instance, Foshee et al.'s (1999) findings support this theory whereby 21% of female perpetration and 15% of male perpetration was accounted for by social learning theory—mediating variables such as aggressive conflict-response style, expecting positive outcomes, and accepting dating violence. However, several null findings have been reported between witnessing interparental violence and subsequent dating violence (Capaldi & Clark, 1998; Carlson, 1990; Hotaling & Sugarman, 1990; MacEwen & Barling, 1988; Simons, Lin, & Gordon, 1998), leading to the conclusion that the majority of children experiencing violence in their homes do not grow up to be violent adults (Kaufman & Zigler, 1987). In addition, some studies have found an association only for males but not for females (e.g., O'Leary, Malone, & Tyree, 1994). This has led some researchers to suggest that main effects may vary within subgroups (Foshee, Ennett, Bauman, Benefield, & Suchindran, 2005) or that methodological and measurement inconsistencies exist in previous research.

The prevalence of college-age students witnessing serious interparental physical violence while growing up typically ranges from 10% to 30% (Edleson, 1999; Jankowski, Leitenberg, Henning, & Coffey, 1999). Similarly, college students report rates at 20%–50% for experiencing physical abuse in their own current intimate relationships (Arias, Samios, & O'Leary, 1987; Avery-Leaf et al., 1997; Fiebert & Gonzalez, 1997; Jankowski et al., 1999; Neufeld, McNamara, & Ertl, 1999; Riggs & O'Leary, 1996). Although psychological violence has gained less empirical attention, one study (Lane & Gwartney-Gibbs, 1985) suggested that psychological aggression might occur in up to 80% of young adult dating relationships. These high rates were supported in a sample of undergraduate students, whereby Riggs & O'Leary (1996) found that at any time in their relationship only 7% of men and 3% of women reported that they had not engaged in any verbal/psychological aggression within any intimate relationship.

Regarding socially learned behavior, White and Koss (1991) surveyed 4,700 college students and found that a history of childhood exposure to violence prior to the age of 18 was positively associated with the perpetration of dating violence by both genders. Similarly, Kwong et al. (2003) found that witnessing interparental violence was associated with a greater likelihood of both violence perpetration and victimization in young adult relationships. A longitudinal study following youths from 1983 to 1993 presented findings

consistent with a social learning model of partner violence (Ehrensaft et al., 2003). In this study, child abuse did not remain statistically significant in the prediction of being a victim of IPV after adjusting for witnessing interparental violence. Thus the authors concluded that exposure to observed violence between parents posed the greatest independent risk for being the victim of any act of IPV.

## Study Aims

When synthesized, the empirical research suggests that witnessing interparental violence in childhood and early adolescence is associated with later experiences of IPV in teenage years, emerging adulthood (EA; a distinct developmental stage from around ages 18 to 25 characterized by self-exploration and independence; Arnett, 2000), and adulthood. Moreover, the literature has well established the IGT of violence as at least one process by which violence is learned during childhood and experienced in later intimate relationships. All identified studies have used respondent recall of witnessing interparental violence in childhood and adolescent years to investigate the intergenerational violence link (e.g., Ehrensaft et al., 2003; Kwong et al., 2003; Reitzel-Jaffe & Wolfe, 2001; Taft et al., 2006). No study identified to date has examined the influence of witnessing inter-parental violence during the emerging adulthood developmental stage. It is possible that parents continue or begin to model violent behaviors when their children are of emerging adult age. For example, parents may become more willing to reveal IPV to their children when they are emerging adults. Also, it is possible that children become more acute at picking up on more subtle forms of psychological IPV when they're older (i.e., subtle put-downs that younger children might miss). Moreover, because both interparental psychological and physical violence have been associated with IPV risk in their grown children in prior research, there is the potential for synergistic effects. That is, observing both forms of violence from parents may increase the likelihood of a violent emerging adult relationship. Thus, we examined the singular and joint effects of parental violence to test for possible synergistic effects on emerging adult relationship violence. First, this article seeks to identify the percentage of psychological and physical IPV reported in emerging adulthood and the percentage of emerging adults that witness interparental psychological and physical violence within the past year. Second, the study aims to further the understanding of IPV in the emerging adult stage and the role of parental modeling of violence. The following hypotheses have been developed for this study:

- Hypothesis 1** Observing either psychological or physical interparental aggression will positively relate to both psychological and physical IPV experienced within EA relationships. Specifically, interparental psychological violence will more strongly associate with EA psychological violence and interparental physical violence will more strongly associate with EA physical violence.
- Hypothesis 2** Emerging adults who witness both physical and psychological interparental violence will be more likely to experience violence within their own intimate relationships than those who experiencing a single type of interparental violence alone.

## Method

### Participants and Procedures

Self-report questionnaires were hand-administered to 292 undergraduate students during regular class periods at a large urban university in Southern California that met the inclusion criteria of being between 18 and 27 years of age. Classes were randomly selected from a master list, which clustered classes by department using random number tables to gain a

representative sample of the undergraduate student population attending the university. All study protocols were institutional review board (IRB) approved and participation was voluntary and responses were anonymous. Participant information sheets were provided to students, which included an explanation of the study as well as the researcher's contact information. Data collection spanned from December 2005 to February 2006. As recommended by Stith et al. (2000), descriptive statistics for measures of relationship violence are provided in Table 1 for future meta-analyses and include the available sample size, mean, standard deviation, and Cronbach's alpha.

## Measures

**EA intimate partner violence**—A 20-item short form of the Conflict Tactics Scale (CTS2; Straus, Hamby, Boney-McCoy, & Sugarman, 1996), considered one of the most widely used tools in violence research, was used. Evidence for reliability and validity across ethnic groups and gender is prevalent (Cronbach's alpha: physical = .86, psychological = .79; Stith et al., 2000; Straus & Douglas, 2004). The measure asks respondents to recall the number of acts of violence within an intimate relationship for the previous 12-month period. The instrument has eight response categories: 0 = *has never happened*, 1 = *once in the past year*, 2 = *twice in the past year*, 3 = *3–5 times*, 4 = *6–10 times*, 5 = *11–20 times*, 6 = *more than 20 times in the past year*, 7 = *happened more than one year ago*. Our study examined both physical and psychological violence perpetrated and experienced within respondent relationships (e.g., psychological violence: I insulted, or swore, or shouted, or yelled at my partner; I called my partner fat, ugly, or used other names to offend my partner; physical violence: I pushed, shoved, or slapped my partner; I punched, kicked, or beat up my partner).

**Interparental violence**—Respondents completed the same 20-item CTS2 questionnaire for observed parental physical and psychological aggression witnessed between parents in the past 12-month period. (e.g., psychological violence: My mother figure insulted, or swore, or shouted, or yelled at her partner; physical violence: My mother figure pushed, shoved, or slapped her partner). The same questions were asked referring to the respondent's father figure perpetration of the violent act toward the respondent's mother figure. Internal consistency reliability remained adequate for respondent self-reports of witnessed interparental violence (see Table 1).

**Demographic variables**—Demographic variables were measured and controlled for in our analyses including ethnicity, gender, socioeconomic status (SES), and age (in years). SES was measured by a proxy of parent education that was the highest grade level completed by either the father or mother ranging from 0 (*less than high school education*) to 4 (*graduate degree*).

## Analysis

Statistical analyses were conducted using SAS 9.1 software (SAS Institute Inc., 2006). All respondents with complete data were included in the analyses ( $N = 223$ ; 76% of original sample). A missing data analysis found no significant differences between missing and included respondents on any variables included in the regression models. Descriptive statistics were obtained to describe the nature of the demographic variables and model covariates. Correlations between independent and dependent variables were examined to determine cross-sectional bivariate relationships. Regression analyses using Proc GLM were conducted, controlling for demographic covariates. Potential outliers were examined using Cook's D criteria ( $CD > 1$ ) and only two outliers were identified. However, these outliers did not change coefficient estimates or correct distribution skewness so these respondents were retained in the models to maintain sample size. The underlying assumptions of linear



regression were tested using log-transformed data for annual frequency of violence measures. Sufficiency in linearity, homoscedasticity, and normality was determined by plotting residuals against predicted values and by examining the distribution of residuals. Within the multivariate models, White ethnicity was used as a reference group because it had the largest frequency of respondents, and because minority ethnic groups tend to have higher rates of IPV victimization than Whites (Rennison & Welchans, 2000). The two variables *witnessing physical interparental violence* and *witnessing psychological interparental violence* were multiplied together to create an interaction term to determine their joint effect on the dependent variable. All interaction variables measured on the continuous level were centering on their respective means before including them in the model (Aiken & West, 1991). A post hoc power analysis was conducted using Gpower 3 to determine if the study had sufficient power to identify a significant interaction effect (Faul, Erdfelder, Lang, & Buchner, 2007).

Annual prevalence and annual frequency scores were obtained from the respondent raw data as indicated by Straus (2004). The annual prevalence score indicates whether one or more acts of violence were used during the referent period. A score of 1 indicates that one or more acts of violence occurred in the past year and a score of 0 indicates no act of violence was experienced in the respondent's relationship in the past year. The annual frequency score refers to the total acts of violence experienced in the respondent's relationship in the past 1 year. The annual frequency score was created by setting midpoints for each response category (e.g., 7 to be 0, 1 to be 1, 2 to be 2, and 3 through 6 to be midpoints as follows: 3 to be 4, 4 to be 8, 5 to be 15, 6 to be 25; see CTS2 scale in Measures section). The item midpoints were then summed and the measure provides the assumed number of violent acts occurring during the past year. In the multivariate analyses, a log transformation was applied to annual frequencies of violence to improve positively skewed distributions.

## Results

Descriptive statistics for responses to the CTS measures are provided in Table 1. Means are provided for annual frequency of violence for psychological and physical violence witnessed by respondents and also experienced by respondents in their own relationships. Internal consistency reliability estimates are provided for each item set.

Descriptive statistics are presented in Table 2. The majority of respondents (58.3%) witnessed interparental psychological violence and experienced psychological violence within their own intimate relationships (69.5%). Reported by respondents, physical violence was also witnessed between parents (17.5%) and experienced within their own intimate relationship (27%). SES was inversely associated with EA psychological violence ( $r = -.23$ ), but no association was found between EA physical violence and SES. Significant Spearman rank order correlations exist between witnessing interparental psychological aggression and experiencing psychological aggression in emerging adulthood ( $r = .21$ ). Significant correlations also existed between witnessing interparental physical violence and both physical ( $r = .21$ ) and psychological ( $r = .14$ ) violence experience in EA relationships. A positive correlation existed between psychological and physical violence reported in EA relationships ( $r = .46$ ).

Table 3 provides the multivariate linear regression results examining the relationship between witnessing interparental violence and violence experienced in EA dating relationships. A test for an interaction effect between witnessing both forms of parental violence was found to be nonsignificant for both types of EA violence and the interaction term was removed from each model. After controlling for demographic covariates and physical violence there was a significant association between interparental and EA

psychological violence ( $B = .19$ ,  $SE = .07$ ,  $p = .01$ ). Including the same model covariates, but controlling for interparental psychological violence, interparental physical violence was significantly associated with EA physical violence ( $B = .30$ ,  $SE = .08$ ,  $p = .01$ ).

## Discussion

This study furthers the IPV literature by (a) identifying the percentage of emerging adults who witness two types of interparental violence, (b) supporting the research literature regarding the high rates of IPV experienced by emerging adults, (c) measuring percentages of both psychological and physical IPV in emerging adult intimate relationships, and (d) examining the association between witnessing interparental violence during the emerging adulthood stage and violence enacted in those emerging adults' dating relationships. Initially the study identified that observing interparental violence in the emerging adulthood stage is a prevalent occurrence in which more than 58% of the sample observed psychological and more than 17% observed physical interparental violence in the past year. These percentages are somewhat higher than previous studies in which college-age students witnessing interparental violence while growing up typically range from 10% to 30% (Edleson, 1999; Jankowski et al., 1999; Sappington, Pharr, Tunstall, & Rickert, 1997). This may suggest that recall bias is less influential spanning a 1-year period as compared to recalling violence in childhood and adolescence. Perhaps, it may also indicate that parents attempt to hide their spousal violence during their child's youth and become more open about violence while their child is of emerging adult age.

This study also draws attention to the extent of violence experienced in emerging adult relationships. Almost 70% of the sample experienced some form of psychological violence in the past year, and 27% of the sample reported physical violence present in their intimate relationships in the past year. The prevalence of violence found in the current study is similar, but somewhat higher to previous studies examining IPV, which found IPV rates reported from college students ranging from 20% to 50% in intimate relationships (Avery-Leaf et al., 1997; Fiebert & Gonzalez, 1997; Foo & Margolin, 1995; Jankowski et al., 1999).

According to Kalmuss (1984), the IGT of family violence involves two types of modeling. First, generalized modeling occurs when childhood family aggression communicates the acceptability of aggression between family members and thus increases the likelihood of any form of family aggression in the next generation. This type of modeling does not necessarily involve a direct relationship between the types of aggression in first- and second-generation families. However, the second type, specific modeling, occurs when individuals reproduce the particular types of family aggression to which they were exposed.

The findings in this study provide partial support for our hypotheses regarding the IGT of violence. The proposed direction of our first hypothesis was supported in that similar forms of parent and emerging adult violence (e.g., interparental physical, EA physical) were more strongly correlated than different forms of violence (e.g., interparental physical, EA psychological). However, these significant bivariate correlations between witnessed interparental violence and EA IPV ranged from .14 to .21, which indicate small effect sizes ( $R^2$  ranged from .02 to .04). In addition, the significant correlation between EA physical and psychological IPV self-reports ( $r = .46$ ) was comparable to previous studies that indicate correlations between these variables range from .33–.71 in adult samples (Reitzel-Jaffe & Wolfe, 2001, Straus et al., 1996).

The multivariate analyses in this study suggest that there is a significant association between interparental modeling of violence and the IPV experienced by witnessing children who are of emerging adult age. Particularly of interest in this study, evidence for specific modeling

of violence was found. Although both forms of interparental violence witnessed by emerging adults were significantly associated with same-type violence in emerging adult relationships, a small amount of variance in IPV was explained (model  $R^2$  ranged from .12 to .14). These findings are consistent with a recent meta-analysis by Stith et al. (2000) who reported a weak-to-moderate relationship between exposure to interparental violence and later IPV (mean effect size in community adult samples is .11). Thus, the specific type modeling associations found in this study may suggest moderate support for the IGT of violence because associations between violence observed between parents and the violence experienced in emerging adult relationships were only significant for the same form of violence used. Moreover, specific modeling was further supported in our study because a significant interaction effect of violence was not identified for emerging adults who witnessed both psychological and physical violence between parents. Rather, only the same type of violence was significantly related. However, this finding may be limited by this study's insufficient power to detect an interaction effect identified in a post hoc power analysis. Our findings are similar to Kalmuss (1984) regarding the violence-specific nature within the IGT of violence that appears to involve specific more than generalized modeling. This study supports the idea that the family is a major socializing institution and that witnessing interparental violence likely plays a role in the use and receipt of violence in emerging adult intimate relationships.

### Limitations and Future Directions

Limitations must be noted while considering the findings of this study. Recall bias pertaining to the annual frequency of violent acts may be present due to a 1-year recall period. However, these methods are superior to previous studies that requested this information from childhood and adolescent years. The cross-sectional design of the study does not allow causal inference to be made between independent and dependent variables. Missing data posed a threat to the external generalizability of findings; however, this threat was not evident based on missing data analysis. Because the current study did not control for respondent's witnessing of interparental violence or child abuse in childhood years, future studies, longitudinal in design, should control for these variables in multivariate models to determine a more adequate effect of witnessing interparental violence in the emerging adult stage. Moreover, the coefficients in the multivariate analyses need to be interpreted with caution because several relevant predictors of IPV were not included in the models; therefore, estimates are likely biased. Psychosocial variables not included in our survey instrument that could have possibly specified a more accurate model would include depression, stress, relationship status, substance use, relationship communication, and aggression.

Future research needs to examine the severity of violence witnessed by emerging adults and violence severity within their own relationships. Larger sample sizes are needed to determine emerging adult victim and perpetrator roles socially learned from witnessing interparental violence in the emerging adult developmental stage. Qualitative studies may also provide in-depth information regarding the context in which emerging adults experience violence (i.e., at home, on campus, couple's apartment). Mediators (e.g., stress, coping, depression, learned hopelessness) between witnessing interparental violence in emerging adulthood and experiencing dating violence need further analytic attention.

### Applications for Intervention

As pointed out by Carr & VanDeusen (2002), the college setting provides unique opportunities for primary and secondary prevention of IPV. Interventions in the emerging adult stage are important considering (a) pre-marital aggression has a strong link to marital aggression (O'Leary, et al., 1994) indicating that patterns set during dating relationships



may continue in adult relationships, (b) dating prepares youth for adult intimate and marital relationships (O’Keeffe et al., 1986), and (c) the prevalence of IPV appears to peak between 20 and 25 years of age (O’Leary, 1999). This study indicated that emerging adults report high rates of IPV both in their own relationships and witnessed between parents. Thus, the following recommendations are provided to universities to enhance prevention and treatment of IPV:

1. Develop a campuswide awareness of IPV including events, posters, and health education booths to inform students regarding the supportive campus attitude toward IPV prevention and the resources available to those seeking help.
2. University health and counseling centers should incorporate IPV screening procedures during regular check-ups and visits for students who experience IPV and witness interparental violence.
3. Intercampus referral programs should be set in place to assist IPV victims to locate needed resources such as counseling, information, and security services while on and off campus.
4. Counselors should assist victims to develop skills (i.e., positive coping, social support) and provide resources (i.e., information about community programs for IPV victims, housing) to exit a violent relationship because victims may leave a perpetrator 6–12 times before leaving permanently (Berlinger, 1998).
5. Counselors should assist students to develop positive emotions within dating relationships to protect against IPV. For example, a study of dating undergraduate students found that being willing to listen to and understand the partner and expressing positive feelings were both predictive of nonviolent as compared to violent relationships (Marcus & Swett, 2002).
6. In more than 80% of women, violence starts during cohabitation (Garcia-Linares et al., 2005). Thus, financial assistance for campus housing should be provided to students who are exposed to violence between parents and/or to students who live with a violent intimate partner.

## Conclusions

The IGT of violence is considered to be one main process to explain IPV enacted by individuals who witness violence in their family of origin. This study identified that a large proportion of emerging adults experience IPV within the college context. Moreover, this study provided support for the IGT of violence; however, only relatively moderate effects were identified for this select sample of emerging adults. An examination of the numerous other psychological and social variables not measured in this study is likely to assist in furthering our understanding the process. Considering the vast negative social and psychological impact of violence, the infrastructures of colleges, which contain health and psychological services, have the resources to serve an important role in the prevention and treatment of IPV.

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**Table 1**  
Descriptive Statistics of Respondent Reports on Conflict Tactics Scale<sup>a</sup> Measures

Violence Type	Number of Items	N	M	SD	Min	Max	Cronbach's alpha
EA psychological	6	223	12.1	17.9	0	99	.82
EA physical	10	223	5.0	15.5	0	118	.88
Parent psychological	6	223	11.7	18.1	0	108	.85
Parent physical	10	223	4.1	16.2	0	151	.95

EA = emerging adulthood.

<sup>a</sup>Descriptive statistics refer to annual frequency of violence.

Table 2

## Characteristics of Study Sample and Bivariate Correlations

Variable [range]	% (N 223)	M (SD)	Annual Frequency Spearman Correlations	
			EA Psychological	EA Physical
Age [18–27]		20.7 (2.1)	.16**	.08
SES [0–4] <sup>a</sup>		2.4 (1.2)	-.23****	-.02
Gender (female)	40.0		.12*	.04
Ethnicity				
Black	17.9			
Asian	13.0			
Hispanic	24.2			
Other	6.3			
White	38.6			
Annual prevalence				
Parent psychol.	58.3			
Parent physical	17.5			
EA psychological	69.5			
EA physical	27.0			
Annual frequency <sup>a</sup>				
Parent psychol. [0–108]	12.1 (17.9)		.21***	.09
Parent physical [0–151]	5.0 (15.5)		.14**	.21***
EA psychological [0–99]	11.7 (18.1)		1.0	.46****
EA physical [0–151]	4.1 (16.2)		.46****	1.0

EA = emerging adulthood; SES = socioeconomic status.

<sup>a</sup>0 = less than high school, 4 = graduate degree

\*  $p < .1$ .

\*\*  $p < .05$ .

\*\*\*  $p < .01$ .

\*\*\*\*  $p < .001$ .

**Table 3**Multivariate Linear Regression With Emerging Adult IPV Outcomes ( $N = 223$ )

Variable	Annual Frequency <sup>a</sup>			
	EA Psychological IPV		EA Physical IPV	
	<i>B</i> ( <i>se</i> )	$\beta$	<i>B</i> ( <i>se</i> )	$\beta$
Intercept	-.06	.24	-1.13	-.95
Age	.08 (.04) *	.08	.05 (.04)	.05
SES	-.21 (.08) **	-.21	.11 (.07)	.11
Gender (female)	.23 (.19)	.23	-.01 (.16)	-.01
Ethnicity (ref: White)				
Black	.66 (.26) **	.66	.50 (.22) **	.50
Asian	.32 (.29)	.32	.27 (.24)	.27
Hispanic	.41 (.25)	.41	**	.53
Other	.22 (.39)	.22	.10 (.33)	.10
Parent psychological	.19 (.07) ***	.29	.03 (.06)	.05
Parent physical	.01 (.09)	.01	.30 (.08) ***	.32

$R^2 = .14$  for psychological IPV;  $R^2 = .12$  for physical IPV. EA = emerging adulthood; IPV = intimate partner violence; SES = socioeconomic status.

<sup>a</sup> Annual frequency outcome is on the log scale.

\*  $p < .1$ .

\*\*  $p < .05$ .

\*\*\*  $p < .01$ .