



# Multiple Dimensions of Childhood Abuse and Neglect Prospectively Predict Poorer Adult Romantic Functioning

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## Abstract

The present study used data from the Minnesota Longitudinal Study of Risk and Adaptation (MLSRA) to investigate how multiple dimensions of childhood abuse and neglect predict romantic relationship functioning in adulthood. Several dimensions of abuse and neglect (any experience, type, chronicity, co-occurrence, and perpetrator) were rated prospectively from birth through age 17.5 years. Multimethod assessments of relational competence and violence in romantic relationships were conducted repeatedly from ages 20 to 32 years. As expected, experiencing childhood abuse and neglect was associated with lower romantic competence and more relational violence in adulthood. Follow-up analyses indicated that lower romantic competence was specifically associated with physical abuse, maternal perpetration, chronicity, and co-occurrence, whereas more relational violence was uniquely associated with nonparental perpetration. We discuss these novel prospective findings in the context of theory and research on antecedents of romantic relationship functioning.

## Keywords

abuse and neglect, social development, close relationships, romantic relationships, relationship violence

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Childhood abuse and neglect affects millions of Americans, with lifetime prevalence estimates ranging from 12.5% (based on confirmed maltreatment cases; Wildeman et al., 2014) to greater than 40% (based on telephone surveys; Finkelhor, Turner, Shattuck, & Hamby, 2013; Hussey, Chang, & Kotch, 2006) through late adolescence. Such adverse childhood experiences have been historically understudied in social psychological research, but represent important developmental contexts for interpersonal relationships. Experiencing childhood abuse and neglect has well-established negative consequences for interpersonal functioning in childhood. Specifically, abuse and neglect has been linked to more aggression, social withdrawal, and peer rejection in childhood, as well as poorer social skills and lower quality friendships (Cicchetti & Toth, 2015). However, much less is known about the influence of childhood abuse and neglect on social competence in *adults*, particularly with regard to their capacity to engage in meaningful, high-quality romantic relationships, a defining developmental task of adulthood (Collins & van Dulmen, 2006; Roisman, Masten, Coatsworth, & Tellegen, 2004).

The current study employs an organizational perspective, viewing development as a progression through stage-salient developmental tasks (Sroufe & Rutter, 1984). The experience of abuse and neglect interferes with key developmental

tasks of childhood, including establishing a sense of safety and security and developing a secure attachment with a responsive caregiver (Sroufe & Rutter, 1984; Sroufe & Waters, 1977). Disruptions in early developmental tasks are, in turn, carried forward to affect later development, through mechanisms that include social learning of behavior (Bandura, 1986; O’Leary, 1988) and internal working models of close relationships (Bowlby, 1973, 1980; Raby, Labella, Martin, Carlson, & Roisman, 2017; Roisman et al., 2017; Simpson & Belsky, 2016). Through such mechanisms, childhood abuse and neglect would be expected to have downstream consequences for relationship functioning in adulthood, interfering with the development of stable, well-functioning romantic relationships.

A substantial body of research and theory anticipates associations between child maltreatment and adult

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romantic relationship functioning, although this scientific corpus is limited by its reliance on retrospective self-report. Retrospectively reported abuse or neglect is associated with more aggression in romantic relationships, including more relationship violence perpetration *and* victimization in adolescence and emerging adulthood (e.g., Daigneault, Hébert, & McDuff, 2009; Faulkner, Goldstein, & Wekerle, 2014; Laporte, Jiang, Pepler, & Chamberland, 2011; Renner & Whitney, 2012). Given that most of this research has focused on adolescent and young adult romantic relationships, knowledge remains limited regarding the persistence of these associations into adulthood.

In addition to documented links with relational violence, research indicates that retrospective reports of abuse and neglect are associated with less satisfaction in romantic relationships (Friesen, Woodward, Horwood, & Fergusson, 2010; Testa, VanZile-Tamsen, & Livingston, 2005), more frequent relationship dissolution (Fleming, Mullen, Sibthorpe, & Bammer, 1999; Mullen, Martin, Anderson, Romans, & Herbison, 1996), poorer conflict resolution skills in interactions with romantic partners (Styron & Janoff-Bulman, 1997), and lower commitment in romantic relationships (Friesen et al., 2010; Testa et al., 2005) in emerging adulthood. Viewed together, these findings suggest that experiencing abuse and neglect earlier in life may negatively affect the degree of general competence within adult romantic relationships.

Importantly, very little prior research has examined associations between childhood abuse and neglect and adult romantic functioning, measured *prospectively*. Retrospective reports of abuse and neglect do not reliably identify individuals who are unable or unwilling to report such experiences (Widom, Raphael, & DuMont, 2004). Indeed, only one half to two thirds of individuals with prospectively documented histories of abuse or neglect retrospectively report these experiences in adulthood (Shaffer, Huston, & Egeland, 2008; Widom & Morris, 1997; Widom & Shepard, 1996). Thus, conclusions drawn from existing research using retrospective reports of abuse or neglect remain incomplete.

The few prospective studies have identified meaningful connections between prospectively assessed childhood abuse and neglect and poorer romantic functioning in adulthood. For instance, prospectively assessed childhood physical abuse has been linked to more frequent relational violence victimization (at ages 21 and 23) and perpetration (at age 21) (Linder & Collins, 2005), but other forms of abuse and neglect were not investigated. Widom and colleagues have a well-established research program comparing long-term outcomes of individuals with and without court-substantiated histories of maltreatment. Research from this group found that individuals who experienced *any* maltreatment (physical and sexual abuse and/or neglect) were more likely to perpetrate relational violence at age 29 (White & Widom, 2003) and age 40 (Widom, Czaja, & Dutton, 2014). Maltreated individuals also showed less competence in romantic relationships, as evidenced by more relationship dissolution and

less stable long-term relationships by age 29. In addition, adult women with maltreatment histories reported less warm and supportive romantic relationships and were more likely to have engaged in infidelity (Colman & Widom, 2004).

Prior studies have thus provided important prospective evidence for long-term associations linking maltreatment generally to adulthood romantic relationships. To date, however, no longitudinal study with prospective assessments of childhood abuse/neglect has examined how different types of abuse and neglect differentially predict these outcomes. Manly, Cicchetti, and Barnett (1994) have emphasized the need to assess a range of dimensions characterizing childhood abuse and neglect experiences, including the *type* of abuse and neglect experienced, *chronicity* (i.e., abuse and neglect occurring across multiple developmental periods), *co-occurrence* of these experiences (i.e., multiple types experienced), and *perpetrator* of abuse—when investigating associations with social developmental outcomes. This more nuanced approach has yet to be adopted with respect to forecasting social competence outcomes in adulthood, although a few studies have found associations between certain prospectively assessed dimensions of abuse or neglect and certain forms of social competence in childhood. For example, research suggests that physically or sexually abused children may be at greater risk for social problems compared both with nonmaltreated children and children who have experienced other types of maltreatment such as emotional abuse or neglect (Manly et al., 1994; Manly, Kim, Rogosch, & Cicchetti, 2001; Shields & Cicchetti, 2001; Teisl & Cicchetti, 2008). Similarly, adolescents with physical abuse histories (but not other forms of maltreatment) report poorer quality relationships than nonmaltreated peers (Flynn, Cicchetti, & Rogosch, 2014). Similarly, chronicity of abuse and neglect has been linked to greater peer rejection, more aggressive and disruptive behavior, and lower popularity in childhood (e.g., Bolger & Patterson, 2001; Bolger, Patterson, & Kupersmidt, 1998; Manly et al., 1994).

We are not aware of prior research examining the impact of experiencing multiple types of abuse and neglect on children's social development; however, in the Minnesota Longitudinal Study of Risk and Adaptation (MLSRA), number of types experienced was prospectively associated with more dismissing attachment representations of adult romantic partners, characterized by avoidance of intimacy and denial of the value of close romantic relationships (Raby et al., 2017). Regarding perpetrators, Manly et al. (1994) proposed that experiencing abuse at the hands of an attachment figure (i.e., a primary caregiver) might generate more pronounced social competence deficits than abuse by a non-attachment figure (e.g., a stranger). To the extent that relationships with primary caregivers are a major foundation for internal working models of relationships (Bowlby, 1973, 1980), encountering abuse from a primary caregiver may exert a stronger impact on later romantic functioning than abuse by other individuals.

In addition, existing prospective research from Widom and colleagues measures relationship outcomes in the context of a single relationship at a specific time point (e.g., White & Widom, 2003; Widom et al., 2014). However, theoretical models of attachment (Fraley & Shaver, 2000) and interpersonal competence (Waters & Sroufe, 1983) predict that experiences of abuse and neglect would disrupt working models of close others across time and romantic partners. Hierarchical models of attachment, for instance, view working models of individual romantic relationships as nested within a higher-order model of romantic relationships more generally, which in turn is nested within a domain-general model of close relationships (Overall, Fletcher, & Friesen, 2003). Indeed, romantic attachment representations appear to be relatively stable over time, minimally affected by concurrent stressful events (Scharfe & Bartholomew, 1994) and guided by an underlying attachment prototype (Fraley, Vicary, Brumbaugh, & Roisman, 2011). Conceptualizing romantic competence in a similar fashion may allow researchers to better understand an individual's interpersonal functioning. Measuring across different time periods and relationships via multiple methods may isolate the role of the focal individual, distinct from the influence of a specific partner (Kenny & Cook, 1999). Prior longitudinal research has found that young adults show high rank-order stability in relationship quality and experiences of abuse across partners and time (Robins, Caspi, & Moffitt, 2002), but the impact of early developmental experiences is underexamined using this type of individual-level approach.

## The Current Study

The present study builds on prior research showing associations between prospectively measured abuse/neglect and adulthood romantic relationship functioning. Using data from the MLSRA (Sroufe, Egeland, Carlson, & Collins, 2005), a socioeconomically at-risk sample that has been followed from birth to age 39 years, we sought to replicate and extend prior research linking the experience of any abuse and neglect to worse adulthood romantic relationship functioning, with planned follow-up analyses providing novel insight into how nuanced dimensions of abuse and neglect relate to general competence and violence within adult romantic relationships. Although Linder and Collins (2005) conducted a prior investigation in this domain using MLSRA data, the current study extends their findings by (a) adopting a broader operationalization of childhood abuse and neglect that encompasses a wider range of dimensions that adheres to modern definitions of abuse and neglect, and (b) expanding romantic relationship outcomes to include characteristics of both general romantic competence and aggressive behavior in romantic relationships (i.e., relational violence), assessed at multiple points between ages 20 and 32 years.

As our primary hypothesis, we predicted that having *ever experienced* abuse and neglect would forecast poorer

romantic competence (i.e., less effective engagement in romantic relationships, poorer observer-rated romantic relationship quality, lower relationship satisfaction) and higher levels of relational violence (i.e., more aggressive behaviors in romantic relationships) in adulthood. This confirmatory analysis was followed by a series of exploratory analyses investigating different dimensions of abuse and neglect. Based on prior research linking abusive acts of commission (i.e., sexual or physical abuse) with children's poorer social competence and greater aggressive behavior, we predicted that *ever experiencing physical and sexual abuse (but not neglect)* would predict poorer romantic competence and more relational violence in adulthood. Third, we hypothesized that *experiencing more chronic* abuse and neglect (i.e., experiences occurring over several developmental periods) and *more co-occurring* abuse and neglect (i.e., more types) would predict poorer romantic competence and relational violence in adult romantic relationships. Fourth, we predicted that having been abused by a *maternal or paternal figure* (as opposed to a nonparental figure) would predict less romantic competence and more relational violence, given the primary role parental figures are believed to hold in the development of romantic relationship expectations and behavior.

## Method

### Participants

Participants were drawn from the MLSRA, a longitudinal investigation that has followed individuals from birth into middle adulthood (Sroufe et al., 2005). Between 1975 and 1977, 267 pregnant, first-time mothers living below the poverty line and receiving prenatal services were recruited from the local health department in Minneapolis, Minnesota. At the time of their child's birth, 48% of the mothers were teenagers, 65% were single, and 42% had completed less than a high school education. The sample for the current study comprised 179 participants (86 females) who provided information about their experiences in romantic relationships between the ages of 20 and 32 years; the remaining participants were lost to attrition. This sample size is adequate to detect medium effects ( $r \geq .21$ ,  $f^2 \geq .06$ -.11 for regression models) at 80% power (Faul, Erdfelder, Buchner, & Lang, 2009).

In the current sample, 67% of the participants were White/non-Hispanic, 16.8% were multiracial, 11.2% were African American, and 2.2% were of Native American, Hispanic, or Asian American descent. Participants in the current sample did not significantly differ from those in the original sample with respect to participant sex or ethnicity, maternal age, or marital status at the time of the child's birth. Participants in the current sample ( $N = 179$ ) had more highly educated mothers ( $M$  years = 12.27,  $SD = 1.71$  vs.  $M = 11.47$ ,  $SD = 1.80$ ),  $t(264) = -3.94$ ,  $p < .001$ ,  $d = .55$ ; and higher childhood socioeconomic status ([SES]  $M = 23.23$ ,  $SD = 10.26$  vs.  $M =$

14.93,  $SD = 5.92$ ),  $t(198) = -3.79$ ,  $p < .001$ ,  $d = .84$  (see “Measures” section).

## Measures

**Adverse caregiving: Abuse and neglect.** The MLSRA uses the rubric *childhood experiences of adverse caregiving* as an umbrella term to refer to a variety of atypical parent–child experiences that were prospectively measured in the MLSRA cohort and are believed to be harmful to children’s development. The present study focused exclusively on information collected about MLSRA participants’ adverse caregiving experiences of physical abuse, sexual abuse, and neglect. This information was re-coded to apply contemporaneous definitions of abuse and neglect, to identify the specific perpetrator and ages of the abuse and neglect experiences, and to assess the reliability of those coding decisions. Coding criteria were based on definitions developed by the Centers for Disease Control and Prevention (CDC) to “promote consistent terminology and data collection related to child maltreatment” (Leeb, Paulozzi, Melanson, Simon, & Arias, 2008, p. 4). The coding included (a) neglect of a child’s basic physical or cognitive needs, defined as a caregiver’s failure to provide adequate hygiene, shelter, clothing, medical care, supervision, or education; (b) physical abuse, defined as a caregiver’s “intentional use of physical force against a child that results, or has the potential to result in, physical injury” (Leeb et al., 2008, p. 14); (c) sexual abuse, defined as sexual contact (e.g., molestation, rape) or noncontact exploitation (e.g., intentional exposure of child to pornography) by a custodial caregiver or by a perpetrator 5 or more years older than the target child. Although the CDC criteria only addresses sexual abuse perpetrated by a caregiver, the inclusion of non-caregiving perpetrators and the use of a 5-year cutoff is consistent with other research in this area (e.g., Stoltenborgh, van IJzendoorn, Euser, & Bakermans-Kranenburg, 2011).

These CDC definitions were supplemented by a set of more specific coding guidelines that distinguished clear indicators of physical abuse, sexual abuse, and physical/cognitive neglect from ambiguous indicators that were not sufficient for classification in isolation of other evidence. These additional guidelines were developed in consultation with MLSRA senior researchers, Minnesota state law, and available research literature (e.g., Barnett, Manly, & Cicchetti, 1993) and are available from the first author upon request. However, the classifications of childhood experiences of abuse or neglect do not necessarily reflect criteria for maltreatment used by child protective services, which vary from state to state. As such, our scoring of abuse and neglect does not necessarily mean that these children or their families were involved with child protective services.

Although emotional unavailability or lack of caregiver responsiveness has proven to be an important dimension of adverse caregiving (especially for young children), with pernicious developmental consequences (National Scientific

Council on the Developing Child, 2012; Sroufe et al., 2005), this dimension was not included in the current coding criteria due to insufficient information across developmental periods. Similarly, exposure to violence between caregivers and other forms of environmental violence were not included in the current set of codes. Exposure to violence between caregivers is captured by a separate variable in the MLSRA dataset (e.g., Narayan, Englund, & Egeland, 2013), and insufficient information was available to code adequately exposure to other forms of environmental violence.

Judgments regarding abuse and neglect experiences were made for participants whose records had been previously flagged as potentially ever abused or neglected ( $n = 139$ , 52% of the original sample). For these cases, all available data collected from birth to 17.5 years (up to 25 assessments) were reviewed for information regarding caregiving quality, physical discipline, supervision, home environment, physical and sexual assault, child protective service involvement, and foster care history. Information was obtained from parent–child observations, caregiver interviews, reviews of available child protection and medical records, adolescent reports, and teacher interviews. Disclosures of childhood physical or sexual abuse during the Adult Attachment Interview (AAI; Hesse, 2008), a retrospective interview regarding early caregiving experiences administered at 17.5 years of age, were not included in the present set of codes except in situations in which an experience of abuse was initially identified based on records through age 17.5 years, but there was insufficient detail to code the specific developmental period or perpetrator (e.g., an adolescent disclosed a history of sexual assault without specifying whether the perpetrator was a peer). In these cases, available AAIs were consulted only for clarifying information about the previously identified incident.

Coding focused on the presence or absence of physical abuse, sexual abuse, and/or neglect in each of four developmental periods (Infancy: birth to 24 months; Early Childhood: 25 months to 5 years; Middle Childhood: 6–12 years; and Adolescence: 13–17.5 years). For incidents of physical and sexual abuse, coders additionally specified the perpetrator. Perpetrators included maternal caregivers (biological mothers, stepmothers, grandmothers), paternal or father figures (biological fathers, stepfathers, adoptive fathers, and mothers’ live-in boyfriends), and nonparental figures (relatives, neighbors, babysitters, and family friends). Two coders reviewed each case and demonstrated good to excellent reliability for all parameters: Kappas were between .80 and .98 for presence or absence of physical abuse, sexual abuse, and/or neglect; .80 and .84 for presence or absence of each type during each development period; and .80 and .98 for incidents of physical or sexual abuse by each category of perpetrator. All discrepancies were resolved by consensus.

Within the full sample of MLSRA participants ( $N = 267$ ), 102 individuals were classified as having ever experienced physical abuse, sexual abuse, and/or neglect; 81 were coded

as not having experienced abuse or neglect; and the status of 84 was deemed unclear due to missing data (see below). By developmental period, 47 individuals were classified as being abused and/or neglected in infancy (of the 211 with sufficient data to allow for confident classifications of abuse and/or neglect during this developmental period), 66 in early childhood (of the 185 with sufficient data during this developmental period), 66 in middle childhood (of the 190 with sufficient data during this developmental period), and 21 in adolescence (of the 179 with sufficient data during this developmental period).

Within the current sample of 179 participants, 86 individuals were classified as having ever experienced physical abuse, sexual abuse, and/or neglect. Among participants with histories of abuse and/or neglect, 63% had experienced neglect, 37% had experienced sexual abuse, and 60% had experienced physical abuse (not mutually exclusive). Within the abused/neglected group, 37% experienced abuse and/or neglect in infancy, 64% during early childhood, 71% during middle childhood, and 23% during adolescence (not mutually exclusive). In terms of chronicity, 34% of this group experienced abuse and/or neglect during one developmental period, 31% during two periods, 23% during three periods, and 3% during all four developmental periods; 8% had insufficient data to determine the number of developmental periods during which abuse and/or neglect occurred. Among participants with histories of abuse and/or neglect, 47% experienced one type of abuse and/or neglect, 36% experienced two types, and 9% experienced all three types; 8% had insufficient data to determine the number of abuse/neglect types experienced. With respect to perpetrator, 51% of participants who experienced abusive acts of commission were abused by a maternal perpetrator, 49% by a paternal perpetrator, and 31% by a nonparental perpetrator (not mutually exclusive).

To separate participants who had not experienced abuse and/or neglect from those with missing data, the abuse and neglect variables were coded as missing if (a) the participant was not coded as having been abused or neglected based on the available information, and (b) the participant was missing two or more full assessments within any given developmental period. Within the current sample, 19 participants were classified as having missing information related to abuse and neglect. The remaining 74 individuals comprised the nonabused/nonneglected group; the number of missing assessments for this group did not differ from the group of individuals who were classified as having experienced abuse and/or neglect,  $t(158) = -1.02, p = .31, d = .16$ .

**Adult romantic functioning.** Several aspects of adulthood romantic relationship functioning were used to assess competence and violence in adult romantic relationships. Additional data reduction was used to (a) confirm that these two romantic domains represented distinct components and (b) reduce the number of required analyses. Details regarding specific measures and data reduction are presented below.

**Effectiveness of engagement in romantic relationships** was assessed at ages 23 and 32 with semistructured interviews during which each participant discussed his or her current and recent romantic relationships ( $N = 179$  unique cases). Trained coders rated the degree to which each participant demonstrated effectiveness in romantic relationship engagement on a scale from 1 to 5. Higher scores indicated that a participant's relationship history involved mutual caring, trust, and emotional closeness with his or her partners; sensitivity to the needs and wishes of his or her partners; sharing of experiences and enjoyment with partners; and valuing faithfulness, loyalty, and honesty in his or her relationships. Lower scores reflected either a lack of these characteristics or a participant's inability to maintain romantic relationships for more than a short period of time. Ratings had high interrater reliability (intraclass correlations [ICCs] = .93 and .94, respectively). Scores were then averaged across assessments to create a single composite reflecting effectiveness of romantic engagement throughout early adulthood, yielding adequate internal consistency (Cronbach's  $\alpha = .60$ ).

**Observed quality of interactions with romantic partners** was available for participants who completed two structured, videotaped interactions (one conflict-based, one collaborative) with their romantic partners at ages 20-21, 23-24, or 26-28 ( $N = 105$  unique cases). Trained coders rated the observed quality of each couple's interaction on a scale from 1 to 7. This couple-level code reflected a holistic judgment about the general quality of their observed romantic relationship. Higher scores indicated a more supportive relational interaction. Lower scores were characterized by a lack of supportiveness, evidence of victimization, chronic intense conflict, and/or rigidity of roles. High interrater reliability was found for these overall quality ratings (ICCs = .92, .93, and .79 for each respective assessment period). Ratings were averaged across assessments to create an aggregate of overall observed romantic relationship quality throughout early adulthood, which had acceptable internal consistency (Cronbach's  $\alpha = .79$ ).

**Relationship satisfaction** was reported by participants who were in a romantic relationship at the time of assessments using the Relationship Assessment Scale (RAS; Hendrick, 1988) at ages 20-21, 23-24, and 26-28 ( $N = 121$  unique cases). The RAS is a seven-item self-report questionnaire assessing how satisfied partners feel in their romantic relationship (e.g., "How well does your partner meet your needs?" "How good is your relationship compared to most?"). Higher scores represent greater perceived relationship satisfaction. The RAS items were averaged to create total scores at each assessment period, and then total RAS scores were averaged across assessments, creating a measure of romantic relationship satisfaction throughout early adulthood. RAS scores had good internal consistency (Cronbach's  $\alpha = .84$ ).

**Relational violence experiences** in adulthood were assessed using the Conflict Tactics Scale (Straus, 1979), which was administered as part of a semistructured interview at ages 23,

26, and 32 years. Participants indicated whether various physical behaviors (i.e., throwing something, pushing, slapping, kicking, hitting, beating up, threatening with a gun or knife, using a gun or knife) were used to resolve conflicts in any romantic relationship since the prior assessment. Perpetration and victimization of each violent behavior was rated either 0 (*never present*) or 1 (*ever present*), indexing the occurrence of each specific perpetration or victimization behavior throughout early adulthood. Perpetration and victimization behaviors were then summed to create two count scores (possible range from 0 to 8;  $N = 172$  unique cases across assessments) that reflected the total number of relational violence perpetration and victimization behaviors experienced in romantic relationships during early adulthood.

**Data reduction of romantic relationship variables.** A principal components analysis (PCA) with oblique (direct oblimin) rotation was conducted using the romantic functioning indicators described above. Two components were identified. The first, representing *romantic competence*, comprised effectiveness of engagement (loading = .81), observed quality of interactions with romantic partners (loading = .75), and self-reported relationship satisfaction (loading = .74). This component accounted for 48.65% of the variance in romantic functioning. The second component, which represented *relational violence experiences*, comprised both violence perpetration (loading = .93) and victimization (loading = .89) counts. It accounted for 20.70% of the variance in romantic functioning. There were no cross-loadings exceeding  $|.50|$  for any variables.

Romantic competence and relational violence experience scores were computed by standardizing and averaging the relevant indicators, resulting in two composites: romantic competence ( $M = -.11$ ,  $SD = .88$ , range =  $-1.90$ - $1.66$ ,  $\alpha = .64$ ) and relational violence experiences ( $M = .02$ ,  $SD = .91$ , range =  $-0.85$ - $2.98$ ,  $\alpha = .79$ ). In the case of missing assessments, composites were created by averaging all available data. The composites were moderately correlated,  $r = -.39$ ,  $p < .001$ , indicating some overlap between these two aspects of adult romantic functioning.

**Covariates.** Four potential confounds routinely included in prior research on the impact of early experience (e.g., Raby et al., 2017) were included as covariates: participants' sex, ethnicity (1 = *White/non-Hispanic*, 0 = *other*), childhood SES, and maternal education. Childhood SES was assessed with Duncan's socioeconomic index, a widely used indicator of occupational ranking (Stevens & Featherman, 1981). SES scores were created by averaging mothers' occupational statuses collected at seven assessments throughout childhood and adolescence (42 months, 54 months, Grades 1-3, Grade 6, and age 16 years). Maternal education was indexed by the number of years of education each mother had completed, averaged across seven assessments (3 months prenatally, 42 months, Grades 1-3, Grade 6, and age 16).

## Results

Descriptive statistics and zero-order correlations among primary study variables are listed in Table 1. All analyses were conducted using SPSS version 22 (IBM, 2013).

The prospective effects of childhood abuse and neglect parameters on adult romantic relationship functioning were tested using separate linear regression analyses. The primary analysis tested the effects of ever experiencing any abuse and/or neglect. Exploratory follow-up analyses evaluated associations with the following dimensions: types (binary codes indicating presence or absence of sexual abuse, physical abuse, and neglect), chronicity (the number of developmental periods in which individuals experienced any type of abuse and/or neglect, which could range from 0 to 4), co-occurrence (the number of types experienced, which could range from 0 to 3), and perpetrator of abuse (binary codes indicating whether physical and/or sexual abuse was perpetrated by a maternal, paternal, or nonparental figure). Prospective associations of childhood abuse and neglect parameterizations were analyzed separately for the two outcome measures: romantic competence and relational violence experiences.

For each regression model, the focal abuse and neglect variables were entered in the first step. Covariates (participant sex, ethnicity, childhood SES, and maternal education) were added in the second step. The nonfocal romantic functioning composite was then added in the third step to test whether the predictive effects of abuse or neglect experiences were unique to the adult romantic functioning composite of interest, or associated with variance shared between the two aspects of romantic relationship functioning. Regression results are presented in Tables 2 to 6 and are summarized below for each romantic functioning composite.

### Romantic Competence

As shown in Table 2, the experience of any childhood abuse and neglect predicted poorer romantic competence, controlling for all covariates. This association was weakened when relational violence was added to the model, indicating that some of this association was shared between relational competence and violence.

When all three types of abuse/neglect were entered as simultaneous predictors (Table 3), childhood neglect initially predicted poorer romantic competence in adulthood, but this association decreased in strength and significance after including relational violence in the model. In contrast, having experienced physical abuse continued to uniquely predict poorer romantic competence even after all of the other variables were included in the model. Sexual abuse did not uniquely predict romantic competence. Tests of equality of regression coefficients (Paternoster, Brame, Mazerolle, & Piquero, 1998) indicated that physical abuse predicted romantic competence more strongly than sexual

**Table 1.** Bivariate Correlations and Descriptive Statistics of Covariates, Abuse and Neglect Parameters, and Romantic Relationship Functioning.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Sex (female)	—														
2. Ethnicity (White/non-Hispanic)	.03	—													
3. Maternal education	-.13	-.09	—												
4. Childhood SES	-.03	.01	.59***	—											
5. Any abuse/neglect	-.03	-.08	-.28***	-.28***	—										
6. Chronicity	-.02	-.02	-.36***	-.31***	.84***	—									
7. Sexual abuse	.20**	.08	-.10	-.04	.49***	.46***	—								
8. Physical abuse	-.13	-.04	-.20*	-.20*	.65***	.68***	.15	—							
9. Neglect	-.11	-.06	-.34***	-.31***	.68***	.76***	.14	.44***	—						
10. Number of subtypes	-.04	-.01	-.32***	-.25**	.86***	.91***	.57***	.75***	.76***	—					
11. Maternal perpetrator	-.09	.00	-.14	-.18*	.51***	.59***	.13	.76***	.38***	.59***	—				
12. Paternal perpetrator	.01	.01	-.21*	-.10	.50***	.46***	.34***	.60***	.30***	.55***	.18*	—			
13. Nonparental perpetrator	.08	.00	-.04	-.08	.40***	.35***	.72***	.10	.12	.42***	.16*	-.02	—		
14. Romantic competence	.13	.23**	.15*	.16*	-.29***	-.35***	-.00	-.32***	-.34***	-.33***	-.27**	-.15	-.07	—	
15. Relational violence	.08	-.09	-.04	-.08	.24**	.21*	.16*	.09	.19*	.19*	.16*	.02	.29***	-.39***	—
M (% if dichotomous)	48%	68%	12.37	23.23	54%	1.01	21%	33%	34%	0.82	23%	22%	14%	-0.11	0.00
SD	—	—	1.71	10.26	—	1.17	—	—	—	0.93	—	—	—	0.88	0.91
N	179	179	179	177	160	153	154	159	158	153	158	157	153	179	172 <sup>a</sup>

Note. For dichotomous abuse and neglect variables, 1 = experienced, 0 = never experienced. SES = socioeconomic status.

<sup>a</sup>Seven participants were excluded from the calculation of the relational violence composite due to missing data on relevant assessments.

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

**Table 2.** Predicting Adult Romantic Relationship Functioning From Ever Experiencing Childhood Abuse and/or Neglect.

	Romantic competence					Relational violence				
	B	95% CI (B)	$\beta$	p	R <sup>2</sup>	B	95% CI (B)	$\beta$	p	R <sup>2</sup>
1. Ever abused/neglected	-.50	[-.77, -.23]	-.29	<.01	.08**	.44	[.16, .72]	.24	<.01	.06**
2. Ever abused/neglected	-.39	[-.67, -.12]	-.23	.01	.15**	.44	[.13, .74]	.24	.01	.07*
Sex (female)	.23	[-.03, .50]	.13	.08		.18	[-.11, .46]	.10	.23	
Ethnicity (White/non-Hispanic)	.40	[.12, .69]	.22	.01		-.13	[-.44, .18]	-.07	.42	
Childhood SES	.00	[-.01, .02]	.04	.67		-.00	[-.02, .01]	-.05	.61	
Maternal education	.05	[-.05, .15]	.10	.29		.04	[-.07, .14]	.07	.51	
3. Ever abused/neglected	-.25	[-.52, .02]	-.14	.07	.26**	.29	[-.00, .58]	.16	.05	.19**
Sex (female)	.29	[.04, .54]	.17	.02		.27	[-.01, .54]	.15	.05	
Ethnicity (White/non-Hispanic)	.36	[.10, .63]	.19	.01		.03	[-.27, .33]	.02	.84	
Childhood SES	.00	[-.01, .02]	.02	.80		-.00	[-.02, .01]	-.04	.71	
Maternal education	.06	[-.03, .16]	.13	.17		.06	[-.04, .16]	.10	.27	
Relational violence	-.33	[-.47, -.19]	-.34	<.01		—	—	—	—	
Romantic competence	—	—	—	—		-.39	[-.56, -.23]	-.37	<.01	

Note. N = 155. CI = confidence interval; SES = socioeconomic status. For tests of model significance, \*p < .05. \*\*p < .01.

abuse ( $z = 4.29, p = .01$ ), but was not significantly more predictive than neglect ( $z = -.50, p = .62$ ). Post hoc analyses testing each type of abuse individually yielded similar parameter estimates. Neglect significantly predicted romantic competence ( $\beta = .21, p < .01$ ) when controlling for covariates and relational violence, but not types of abuse.

Planned analyses indicated that both chronicity (Table 4) and co-occurrence (Table 5) robustly predicted lower romantic competence, above and beyond the effects of covariates and relational violence. Finally, experiencing abuse by a maternal figure robustly predicted poorer romantic competence in adulthood, even after controlling for abuse by other perpetrators, all four covariates, and relational violence (Table 6). Neither abuse by paternal figures nor by nonparental figures predicted adult romantic competence. Tests of equality of regression coefficients indicated that maternal perpetration was more predictive of romantic competence than nonparental perpetration ( $z = -1.99, p < .05$ ); regression coefficients did not significantly differ for maternal and paternal perpetration ( $z = 0.81, p = .42$ ).

### Relational Violence

The experience of childhood abuse and neglect also predicted more relational violence perpetration and victimization in adulthood (see Table 2). This association was robust following the inclusion of covariates, but weakened when romantic competence was added to the model, paralleling romantic competence findings. When types of abuse/neglect were entered simultaneously, both neglect and sexual abuse showed small, marginally significant associations with more relational violence; links with neglect (but not sexual abuse)

were substantially attenuated after controlling for romantic competence (Table 3). Post hoc analyses testing each type of abuse/neglect individually yielded similar results.

Planned analyses also indicated that both chronicity (Table 4) and co-occurrence (Table 5) predicted more relational violence in adulthood controlling for demographic covariates. Associations decreased in magnitude and significance when controlling for romantic competence, suggesting that chronicity and co-occurrence are related to romantic functioning more generally, rather than relational violence specifically. Finally, abuse by a nonparental figure predicted more relational violence, even after demographic covariates and romantic competence were controlled (Table 6). Contrary to hypotheses, neither maternal nor paternal perpetration uniquely predicted relational violence, and tests of equality of regression coefficients revealed that nonparental perpetration was significantly more strongly related to relational violence than either maternal ( $z = 2.11, p = .03$ ) or paternal ( $z = 2.68, p = .01$ ) perpetration.

As a robustness check on relational violence analyses, we reran separate models testing associations with violence perpetration and victimization. Parameter estimates and significance estimates across these analyses were similar.

A final set of post hoc analyses was motivated by the confounding of perpetrator and type in the current sample: Physical abuse was more often perpetrated by mothers (65%) than nonparental figures (4%), whereas sexual abuse was more often perpetrated by nonparents (63%) than maternal figures (9%). Post hoc analyses revealed that physical abuse by a maternal perpetrator (but not other perpetrators) predicted lower relational competence ( $\beta = -.20, p < .05$ , controlling for covariates, sexual abuse by all perpetrators, and relational violence); its parameter estimate differed significantly from



**Table 3.** Predicting Adult Romantic Relationship Functioning From Types of Childhood Abuse and/or Neglect.

	Romantic competence					Relational violence				
	B	95% CI (B)	$\beta$	<i>p</i>	<i>R</i> <sup>2</sup>	B	95% CI (B)	$\beta$	<i>p</i>	<i>R</i> <sup>2</sup>
1. Neglect	-.46	[-.77, -.15]	-.25	<.01	.16**	.33	[-.01, .67]	.17	.06	.05*
Sexual abuse	.15	[-.18, .48]	.07	.39		.31	[-.05, .67]	.14	.09	
Physical abuse	-.41	[-.72, -.10]	-.22	.01		-.01	[-.35, .34]	-.00	.97	
2. Neglect	-.38	[-.70, -.05]	-.21	.02	.21**	.34	[-.02, .71]	.18	.06	.07
Sexual abuse	.07	[-.26, .41]	.03	.67		.29	[-.09, .67]	.13	.13	
Physical abuse	-.37	[-.69, -.06]	-.20	.02		.01	[-.34, .36]	.01	.95	
Sex (female)	.14	[-.14, .41]	.08	.32		.16	[-.15, .47]	.09	.31	
Ethnicity (White/non-Hispanic)	.39	[.11, .68]	.21	.01		-.16	[-.48, .16]	-.08	.33	
Childhood SES	.00	[-.01, .02]	.02	.81		-.01	[-.02, .01]	-.07	.53	
Maternal education	.03	[-.07, .13]	.06	.54		.04	[-.07, .15]	.08	.45	
3. Neglect	-.26	[-.57, .04]	-.14	.09	.31**	.18	[-.16, .53]	.10	.29	.20**
Sexual abuse	.17	[-.15, .48]	.08	.29		.18	[-.03, .67]	.14	.07	
Physical abuse	-.37	[-.66, -.08]	-.20	.01		.17	[-.48, .19]	-.08	.39	
Sex (female)	.19	[-.07, .45]	.11	.15		.15	[-.07, .50]	.12	.14	
Ethnicity (White/non-Hispanic)	.34	[.08, .61]	.18	.01		.15	[-.30, .31]	.00	.97	
Childhood SES	.00	[-.02, .02]	.00	.99		.01	[-.02, .01]	-.06	.56	
Maternal education	.05	[-.05, .14]	.09	.33		.05	[-.05, .16]	.10	.29	
Relational violence	-.33	[-.47, -.19]	-.34	<.001		—	—	—	—	
Romantic competence	—	—	—	—		-.42	[-.59, -.24]	-.40	<.01	

Note. *N* = 149. CI = confidence interval; SES = socioeconomic status.

For tests of model significance, \**p* < .05. \*\**p* < .01.

**Table 4.** Predicting Adult Romantic Relationship Functioning From Chronicity of Childhood Abuse and/or Neglect.

	Romantic competence					Relational violence				
	B	95% CI (B)	$\beta$	<i>p</i>	<i>R</i> <sup>2</sup>	B	95% CI (B)	$\beta$	<i>p</i>	<i>R</i> <sup>2</sup>
1. Abuse/neglect chronicity	-.26	[-.38, -.15]	-.35	<.01	.12**	.16	[.04, .29]	.21	.01	.04*
2. Abuse/neglect chronicity	-.23	[-.35, -.11]	-.31	<.01	.19**	.17	[.04, .31]	.22	.01	.06
Sex (female)	.22	[-.05, .48]	.13	.10		.18	[-.12, .48]	.10	.24	
Ethnicity (White/non-Hispanic)	.42	[.14, .70]	.23	<.01		-.16	[-.47, .16]	-.08	.34	
Childhood SES	.00	[-.01, .02]	.04	.71		-.01	[-.02, .01]	-.06	.55	
Maternal education	.03	[-.07, .13]	.06	.57		.05	[-.07, .16]	.08	.43	
3. Abuse/neglect chronicity	-.18	[-.30, -.06]	-.24	<.01	.29**	.08	[-.05, .21]	.10	.17	.19**
Sex (female)	.28	[.03, .52]	.16	.03		.27	[-.02, .55]	.15	.15	
Ethnicity (White/non-Hispanic)	.37	[.11, .64]	.20	<.01		.01	[-.30, .32]	.01	.55	
Childhood SES	.00	[-.01, .02]	.02	.86		-.00	[-.02, .01]	-.05	.90	
Maternal education	.04	[-.05, .14]	.08	.37		.06	[-.05, .16]	.10	.27	
Relational violence	-.31	[-.45, -.18]	-.33	<.01		—	—	—	—	
Romantic competence	—	—	—	—		-.40	[-.57, -.22]	-.38	<.01	

Note. *N* = 148. CI = confidence interval; SES = socioeconomic status.

For tests of model significance, \**p* < .05. \*\**p* < .01.

nonparental sexual abuse ( $\beta = .05$ ,  $z = -2.09$ ,  $p < .05$ ) and nonsignificantly from all other parameters ( $\beta = -.13$  to  $.05$ ,  $|z| = 0.54-1.82$ ,  $ps > .07$ ).

Sexual abuse by a nonparental perpetrator (but not other perpetrators) predicted more involvement in relational violence ( $\beta = .21$ ,  $p < .01$ , controlling for covariates, physical

abuse by all perpetrators, and romantic competence). Nonparental sexual abuse was significantly more predictive than maternally and paternally perpetrated physical and sexual abuse ( $\beta = -.08$  to  $.06$ ,  $|z| = 2.00-2.62$ ,  $ps < .05$ ), but not nonparental physical abuse ( $\beta = .03$ ,  $z = .62$ ,  $p = .54$ ).

**Table 5.** Predicting Adult Romantic Relationship Functioning From Number of Types of Childhood Abuse and/or Neglect.

	Romantic competence					Relational violence				
	B	95% CI (B)	B	p	R <sup>2</sup>	B	95% CI (B)	β	p	R <sup>2</sup>
1. Number of types	-.31	[-.46, -.17]	-.33	<.01	.11**	.19	[.03, .35]	.19	.02	.04*
2. Number of types	-.27	[-.42, -.12]	-.29	<.01	.18**	.20	[.03, .37]	.21	.02	.06
Sex (female)	.22	[-.05, .48]	.12	.10		.18	[-.12, .48]	.10	.23	
Ethnicity (White/non-Hispanic)	.43	[.14, .71]	.23	<.01		-.16	[-.48, .16]	-.08	.32	
Childhood SES	.00	[-.01, .02]	.05	.64		-.01	[-.02, .01]	.07	.47	
Maternal education	.03	[-.07, .13]	.07	.42		.04	[-.07, .15]	.08	.48	
3. Number of types	-.21	[-.35, -.07]	-.22	<.01	.29**	.09	[-.08, .25]	.09	.29	.18**
Sex (female)	.27	[.02, .52]	.16	.03		.27	[-.01, .55]	.15	.06	
Ethnicity (White/non-Hispanic)	.38	[.11, .64]	.20	<.01		.01	[-.30, .32]	.01	.94	
Childhood SES	.00	[-.01, .02]	.03	.75		-.01	[-.02, .01]	-.05	.58	
Maternal education	.05	[-.05, .14]	.09	.32		.05	[-.05, .16]	.10	.31	
Relational violence	-.32	[-.46, -.18]	-.33	<.01		—	—	—	—	
Romantic competence	—	—	—	—		-.40	[-.57, .23]	-.38	<.01	

Note. N = 148. CI = confidence interval; SES = socioeconomic status. For tests of model significance, \*p < .05. \*\*p < .01.

**Table 6.** Predicting Adult Romantic Relationship Functioning From Perpetrator of Abuse.

	Romantic competence					Relational violence				
	B	95% CI (B)	β	p	R <sup>2</sup>	B	95% CI (B)	β	p	R <sup>2</sup>
1. Maternal figure	-.51	[-.84, -.17]	-.24	<.01	.08**	.25	[-.10, .60]	.11	.17	.10**
Paternal figure	-.22	[-.56, .12]	-.11	.20		.01	[-.34, .36]	.01	.95	
Nonparental figure	-.08	[-.48, .32]	-.03	.69		.70	[.28, 1.11]	.27	<.01	
2. Maternal figure	-.44	[-.78, -.11]	-.21	<.01	.17**	.26	[-.10, .62]	.12	.16	.11*
Paternal figure	-.18	[-.51, .16]	-.08	.29		.01	[-.36, .37]	.00	.97	
Nonparental figure	-.10	[-.48, .29]	-.04	.62		.67	[.25, 1.10]	.26	<.01	
Sex (female)	.22	[-.06, .49]	.12	.12		.14	[-.15, .43]	.08	.35	
Ethnicity (White/non-Hispanic)	.45	[.16, .74]	.24	<.01		-.18	[-.49, .14]	-.09	.27	
Childhood SES	.00	[-.01, .02]	.05	.64		-.00	[-.02, .01]	-.05	.63	
Maternal education	.06	[-.04, .16]	.12	.25		.01	[-.10, .12]	.02	.85	
3. Maternal figure	-.36	[-.67, -.04]	-.17	.03	.28**	.08	[.27, .42]	.04	.65	.23**
Paternal figure	-.18	[-.49, .14]	-.08	.27		-.07	[-.40, .27]	-.03	.70	
Nonparental figure	.14	[-.67, -.04]	.05	.48		.63	[.24, 1.02]	.24	<.01	
Sex (female)	.27	[.01, .52]	.15	.04		.23	[-.05, .50]	.12	.11	
Ethnicity (White/non-Hispanic)	.39	[.12, .66]	.21	<.01		.00	[-.30, .30]	.00	.98	
Childhood SES	.00	[-.01, .02]	.03	.75		-.00	[-.02, .01]	-.03	.74	
Maternal education	.06	[-.03, .16]	.12	.19		.03	[-.07, .14]	.06	.50	
Relational violence	-.35	[-.49, -.20]	-.36	<.01		—	—	—	—	
Romantic competence	—	—	—	—		-.40	[-.57, -.23]	-.39	<.001	

Note. N = 148. CI = confidence interval; SES = socioeconomic status. For tests of model significance, \*p < .05. \*\*p < .01.

### Discussion

The current research reveals the importance of both multiple dimensions of childhood abuse and neglect, as well as different facets of adult romantic functioning in understanding how experiences of childhood abuse and neglect affect romantic relationships in adulthood. The present study is unique in treating romantic relationship competence as a

relatively stable individual difference that can be reliably assessed across early adulthood. We also leveraged diverse measurement strategies common in relationship science (i.e., dyadic observation, self-reported satisfaction, semistructured interviews), and found that these diverse assessments cohere meaningfully into romantic competence and relational violence factors.

As hypothesized, the current results replicate and extend prior prospective, longitudinal research (Colman & Widom, 2004; White & Widom, 2003; Widom et al., 2014) by showing that the experience of *any* childhood abuse and neglect forecasts both poorer romantic competence and more relational violence in adulthood, even when controlling for key demographic covariates. Associations attenuated when the other dimension of adulthood romantic relationships was entered in the model, indicating that predictive associations involve variance that is shared between romantic competence and relational violence. This suggests that any experience of abuse and neglect predicts more general decrements in romantic relationship functioning that are not specific to competence or violence outcomes.

Exploratory analyses investigating additional dimensions of abuse and neglect added nuance to these findings, which need to be replicated and explored further in other samples. Although we anticipated that experiencing a wider range of abuse and neglect dimensions would predict both poorer romantic competence and more relational violence, we instead found unique risk factors associated with each component of adult romantic functioning. Although relational violence was not uniquely predicted by any specific type of abuse, poorer romantic competence was significantly associated with physical abuse. These findings partially support our hypothesis that abusive acts of commission would predict worse romantic relationship functioning in adulthood. Although physically abused children often form friendships early in life, the *quality* of their relationships tends to deteriorate across subsequent developmental periods, perhaps due to the increasing complexity and intimacy that defines most high-quality relationships (Bolger et al., 1998). Given the increasingly complex, intimate, and reciprocal nature of well-functioning romantic relationships in adulthood, the predictive effect of physical abuse on romantic competence might reflect similar processes. Of note, regression coefficients for physical abuse and neglect did not significantly differ in magnitude, and neglect predicted romantic competence when physical abuse was excluded from the model. Future research should investigate whether neglect has similar long-term associations with lower romantic competence in other samples.

We also found that chronicity and co-occurrence of childhood abuse and neglect accounted for more variance in romantic competence compared with relational violence. More chronic exposure and more co-occurring types predicted both outcomes controlling for demographic covariates; however, when the other dimension of romantic relationship functioning was included in the final step, chronicity and co-occurrence predicted romantic competence only. These results provide further support that childhood abuse and neglect's negative impact on social competence persists into adulthood, at least within romantic relationships. More robust associations with romantic competence highlight the importance of assessing abuse/neglect-related

decrements in positive relationship qualities, even among those who do not experience relationship violence. These associations may be explained by continued reinforcement of maladaptive conflict resolution or communication strategies by abusive or neglecting caregivers. Chronic and varied experiences of abuse and neglect may also limit exposure to positive interactions with caregivers that would model and promote more adaptive social behavior throughout development, including in late adolescence and early adulthood, when romantic relationships assume greater importance. Experiencing multiple types and time points of childhood abuse and neglect may contribute to negative cumulative effects on romantic competence, consistent with prior research on cumulative risk (e.g., Appleyard, Egeland, van Dulmen, & Sroufe, 2005). Importantly, chronicity and co-occurrence are overlapping dimensions that tend to be highly correlated in both the current ( $r = .90$ ) and past samples (e.g., Bolger & Patterson, 2001). Thus, these should not be interpreted as independent results, but rather as complementary parameterizations of the same underlying variation.

Finally, with regard to perpetration, maternally perpetrated abuse predicted poorer romantic competence, particularly compared with nonparentally perpetrated abuse. In contrast, abuse perpetrated by a nonparental figure uniquely predicted more relational violence in adulthood. Thus, our hypothesis that parentally perpetrated abuse would forecast more negative romantic outcomes was partially supported. The current findings suggest that maternal figures may play a particularly influential role in the construction of internal working models about future relationships with romantic partners (see also Doherty & Feeney, 2004). In line with this perspective, maternal relationship quality tends to be more influential in the development of conflict resolution skills used in later relationships (Dardis, Edwards, Kelley, & Gidycz, 2013). Future research should examine the mechanisms by which maternally perpetrated abuse is tied to poor romantic competence, including the pathway involving the development of poor skills for dealing with social conflict.

The impact of nonparental perpetrators of abuse on subsequent relational violence in adulthood, which we did not anticipate, is noteworthy. This result should be interpreted in light of substantial confounding between perpetrator and type. Post hoc analyses indicated that maternal physical abuse (rather than sexual abuse) was associated with lower romantic competence, whereas nonparental sexual abuse (rather than physical abuse) was associated with more relational violence. As discussed above, maternal physical abuse may constrain the development of adaptive conflict resolution and sense of security in close relationships, whereas sexual abuse by a nonparental perpetrator may increase risk factors for later involvement in relational violence, including perceived helplessness, residual hostility, and/or vulnerability to coercion. Given the unequal distribution of perpetrator and type, it is not clear whether perpetrator, type, or their interaction primarily account for these associations. In

addition, replication in larger samples is needed to ensure that this variability reflects meaningful nuance rather than merely noise, particularly given nonsignificant differences between some parameters.

### **Strengths and Limitations**

The current prospective investigation builds on pioneering studies by Widom and colleagues (Colman & Widom, 2004; White & Widom, 2003; Widom et al., 2014), replicating the finding that experiencing any childhood abuse and neglect is associated with lower levels of romantic relationship functioning. The current study extends these findings to a community sample, investigates unique prediction to romantic competence versus relational violence, and employs a novel individual-level assessment of romantic competence that spans across multiple relationships. In addition, follow-up analyses using fine-grained dimensions of abuse and neglect yield nuanced information about differential predictive patterns for romantic competence and relational violence. Importantly, this study is one of only a few to gather carefully documented, prospective information on different dimensions of childhood abuse and neglect along with multiple assessments of romantic functioning across early adulthood.

Despite the current study's numerous strengths, some limitations remain. First, the majority of the MLSRA sample is Caucasian and was originally recruited as a high-risk poverty population. Although we controlled for ethnicity and SES, additional research is needed to replicate our findings with individuals from more diverse socioeconomic and ethnic backgrounds. Second, we did not take into account other adverse caregiving experiences, such as interparental violence or emotional abuse. However, associations between additional types of adverse caregiving experiences and romantic functioning have been documented in previous research using the MLSRA sample (e.g., Narayan et al., 2013). Third, involvement in relational violence was self-reported by target participants, so it may underestimate actual rates of violent behavior. Fourth, although we assessed an important set of romantic functioning indicators across early adulthood (from ages 20 to 32 years), persistence of these associations into later adulthood remains unknown (but see Widom et al., 2014). Finally, our sample size was constrained by attrition, limiting power to detect small effects and higher-order interactions.

### **Directions for Future Research and Conclusion**

The current results provide continued support that prospectively documented experiences of childhood abuse and neglect predict poorer romantic competence and more relational violence behavior in adulthood. Researchers now need to focus on addressing *why* these predictive effects occur by examining the potential mechanisms through which

childhood experiences of abuse and neglect influence adult romantic functioning. Variation in social competence prior to adulthood may account for some of these associations, particularly given known links between abuse and neglect and children's poor social competence (Cicchetti & Toth, 2015). Abused and neglected children may develop accumulating social deficits because of continued negative interactions within their peer groups. They may also have fewer positive social experiences that limit opportunities to correct negative internal working models. Abused and neglected individuals may also be less likely to have high-quality peer or romantic relationships in adolescence, which are important stepping stones from which adult romantic functioning often develops (e.g., Madsen & Collins, 2011; Simpson, Collins, Tran, & Haydon, 2007). Lower social competence in child and adolescent peer relationships and in adolescent romantic relationships offers relevant pathways for future study.

In sum, it is notable that abuse and neglect experiences in childhood predict both romantic competence and relational violence outcomes in adulthood. Our findings also reveal that dimensions of abuse and neglect are more robustly associated with romantic competence, highlighting the importance of moving beyond relational violence when characterizing romantic relationship functioning in adults who experienced childhood abuse and neglect. These patterns suggest that the impact of childhood abuse and neglect to developmentally salient social domains may become increasingly specified as the relationships or behavior under study become more complex (i.e., moving from childhood peer interactions to adult romantic relationships). These findings represent an important step toward a comprehensive understanding of romantic relationship-related consequences of childhood abuse and neglect.

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### **Supplemental Material**

Supplementary material is available online with this article.

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