Revisiting the link between childhood sexual abuse and adult sexual aggression

Alan R. King⁎, Sara K. Kuhn, Chassidy Strege, Tiffany D. Russell, Tyler Kolander

University of North Dakota, United States

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ABSTRACT

Background: Childhood maltreatment poses a risk factor for adult sexual aggression among men. Efforts were made to examine links between childhood sexual abuse (CSA) and sexual aggression after controlling variance associated with other forms of abuse.

Objective: Participants and setting: Efforts were made to examine links between childhood sexual abuse (CSA) and sexual aggression after controlling variance associated with other forms of abuse. This sample was comprised of men (n = 489) who completed a national survey regarding their history of possible abuse and/or sexual aggression.

Methods: Maltreatment indices included CSA, parental and sibling physical abuse, exposure to domestic violence, peer bullying, and family emotional abuse. Self-report indicators of sexual frotteurism, coercion and rape were provided by the Sexual Experiences Survey-Short Form Perpetration.

Results: CSA links with the criterion indicators were relatively stronger (r = 0.36, d = 0.65, p < .001) than those found for non-sexual forms of abuse. CSA accounted for unshared variance in sexual aggression with these effects magnified by the addition of parental physical abuse (d = 2.1) or exposure to domestic violence (d = 2.2). The relative risks of prior acts of rape were elevated by CSA (RR = 4.39, p < .001), parental physical abuse (RR = 3.85, p < 0.001), exposure to domestic violence (RR = 3.81, p < .001), or sibling physical abuse (RR = 2.56, p = 0.007). These risks of completed rape were higher as well among respondents polyvictimized by two (RR = 4.92, p < .001) or more (RR = 8.94, p < 0.001) forms of abuse.

Conclusions: Multiple forms of child maltreatment, particularly CSA, were strongly associated with adult sexual aggression in this sample of men from the general population.

1. Introduction

Sexual aggression has been defined as any attempted or completed action intended to coerce, threaten, or physically force sexual contact with a nonconsenting victim (Abbey, BeShears, Clinton-Sherrod, & McAuslan, 2004). Sexual aggression, sexual assault, and rape are often used interchangeably to describe any application of physical force, threats of force, or use of a drug to gain sexual contact with a nonconsenting individual (Baumeister, Catanese, & Wallace, 2002). Sexual coercion defines that subset of non-physical acts such as deception, guilt induction, psychological threats, and/or false promises used in seduction efforts. The impact of sexual coercion should not be discounted since it still includes autonomy violations and often feelings of betrayal, shame, and exploitation (DeGue & DiLillo, 2004). Lifetime victimization estimates for women (43.9%) and men (23.4%) accentuate the problem (Breiding et al., 2014).

Sexual aggression research has relied increasingly on self-report survey disclosures. The perpetration form of the Sexual...
Experiences Survey–Short Form Perpetrator (SES-SFP; Koss et al., 2006) has been a widely-used index (Anderson, Cahill, & Delahanty, 2017; Johnson, Murphy, & Gidycz, 2017). While some concern about false positives (Buday & Peterson, 2015) and the merits of alternative SES scoring practices remain (Davis et al., 2014), support for reliability and validity of the SES-SFP has been fairly well-established (Yapp & Quayle, 2018). In prospective analyses the disclosure of past sexual aggression has been associated with a nine-fold increase in future perpetration (Loh & Gidycz, 2006). Self-reported sexual aggression rates have been high and consistent across studies. One college survey found that 10.4% of the men described perpetrating one or more acts of sexual aggression since age 14 (Krahé & Berger, 2017). Rates of self-reported sexual assault by men in the general public have been as high as 43% (Abbey, Jacques-Tiura, & LeBreton, 2011) and 59% (Widman, Olson, & Bolen, 2013).

1.1. Childhood sexual abuse and sexual aggression

Medical researchers have recognized close relationships between adult health and adverse childhood experiences (ACE). Scores from a 10-item ACE scale (Felitti et al., 1998) have been linked to a wide range of physical (Kalmakis & Chandler, 2015) and psychiatric (van der Feltz-Cornelis, Potters, van Dam, Koordijk, & Elfeddali, 2019) illnesses. Female sex offenders have been found as well to have higher ACE scores than counterparts without a criminal history (Levenson, Willis, & Prescott, 2014). ACE scale items identify people who have experienced selected forms of child abuse (i.e., sexual, physical, emotional, neglect, domestic violence) and family adversity (i.e., parental divorce, mental illness, alcoholism, incarceration). ACE scale research has relied on both dimensional and high-risk classifications (usually 4 or more items) to establish relationships with criterion variables.

Childhood sexual abuse (CSA) often antecedes adult sexual aggression (Davis et al., 2012; Krahé & Berger, 2017; Lambie, Seymour, Lee, & Adams, 2002; Mathes, 2015; Merrill, Thomsen, Gold, & Milner, 2001; Peterson et al., 2018). Men victimized by CSA have been found to be six times more likely than non-abused counterparts to report sexual perpetration (Loh & Gidycz, 2006). A meta-analysis of 59 studies (Seto & Lalumière, 2010) compared male adolescent sex offenders with normative counterparts and found that CSA and atypical sexual interests (e.g., paraphilic, hypersexual, compulsive, etc.) best differentiated the cohorts over a broad range of other risk factors. Estimated effect sizes within the maltreatment cluster reflected the central importance of CSA (d = .67) over physical abuse (d = 0.24), nonsexual family violence (d = 0.11), sexual family violence (d = 0.24), emotional abuse (d = 0.25), and peer relations maladjustment (d = 0.25). A different meta-analysis of 17 studies arrived at a similar conclusion with the odds of a subsequent sex offense raised among victims of CSA (OR = 3.36), but not childhood physical abuse (CPA), emotional abuse, or neglect (Jespersen, Lalumière, & Seto, 2009). CSA of longer durations (Christopher, Lutz-Zois, & Reinhardt, 2007) and greater severity (Plummer & Cossins, 2018) appears to pose the greatest risk for sexual aggression. Links between child sexual abuse and adult sexual aggression have been more widely supported among men than women (Papalia, Ogloff, Cutajar, & Mullen, 2018; Plummer & Cossins, 2018).

1.2. Sexual abuse polyvictimization

The prevalence of CSA prior to age 18 has been estimated at 19.7% and 7.9% of women and men respectively (Pereda, Guiela, Forns, & Gómez-Benito, 2009). United States prevalence rates for parental physical abuse and exposure to domestic violence have averaged around 10% (Fisher et al., 2015; Widom, Czaja, & DuMont, 2015). Rates of sibling abuse (Krienert & Walsh, 2011) and peer bullying (Wang, Iannotti, Luk, & Nansel, 2010) appear somewhat higher.

The acquisition and maintenance of complex behavior such as sexual aggression includes many contributors (White & Smith, 2004). Situational/contextual factors (Leclerc, Wortley, & Smallbone, 2011; Leclerc, Wortley, & Dowling, 2016) and affective states during offenses (Leclerc & Lindergaard, 2017) have been particularly challenging to disentangle. The co-occurrence of parental physical abuse and/or domestic violence may also impact the behavior (Malamuth, Linz, Heavey, Barnes, & Al, 1995; White & Smith, 2004). Sexual violence has been found to be 4.5 times higher among men who recalled dual CSA and CPA during upbringing (Casey, Beadnell, & Lindhorst, 2009). One large prospective study followed 38,282 maltreated males up to age 25 to assess the extent to which CSA, CPA, emotional abuse or neglect, or polyvictimization predicted adult sexual, violent, or nonviolent criminal offending (Leach, Stewart, & Smallbone, 2016). This study emphasized the infrequency (1.4%), and likely underreporting, of substantiated sexual abuse of boys in the general population. Rates of documented sex offenses were even lower, with less than 0.8% identified prior to age 25. Only 0.7% of the CSA cohort later offended, but 3.9% of the polyvictimized boys did eventually commit a sex offense. While co-occurring abuse appeared impactful, unitary CSA links could not be established. Analyses relying on legal documentation of CSA and later assault afford the benefit of certitude at the potential cost of victim and perpetrator underrepresentation. This sort of measurement rigor has been described as high fidelity, as opposed to broad “bandwidth”, assessment (Cronbach & Gleser, 1965). Each approach has its costs and benefits.

CSA polyvictimization has been associated with risky sexual behavior (Thibodeau, Lavoie, Hébert, & Blais, 2017) and intimate-partner violence (Jennings, Richards, Tomisch, & Gover, 2015; Kimber, Adham, Gill, McTavish, & MacMillan, 2018). Childhood neglect and emotional abuse (Salter et al., 2003; Zurbriggen, Gobin, & Freyd, 2010) also warrant attention. Polyvictimization environments also may cultivate negative affect (Peterson et al., 2018), impulsivity (Parkhill & Pickett, 2016), conflict resolution skill deficits (Loh & Gidycz, 2006), and other putative predispositions to sexual aggression. Polyvictimization appears to have a cumulative effect (Thibodeau et al., 2017), and CSA interactions with other forms of childhood adversity may be impactful as well (Littleton, Grills, & Drum, 2014; Ullman, Najdowski, & Filipas, 2009; Ullman, Relyea, Peter-Hagene, & Vasquez, 2013).

Studies of sexual aggression do not consistently or thoroughly control for co-occurring ACE influences (Abbey & Jacques-Tiura, 2011; Abbey, Parkhill, Clinton-Sherrod, & Zawacki, 2007; Finkelhor, Ormrod, & Turner, 2007; Kimber et al., 2018; McWhorter, 2011).
2.2. Measurements

2.2.1. Childhood maltreatment indicators

The Violent Experiences Questionnaire (VEQ-R; King & Russell, 2017) provided estimates of the frequencies with which various forms of childhood maltreatment occurred from ages 5 to 16. The score for each index is interpreted as the number of days on average per year a specified class of behavior occurred during the 12 year recollection period. VEQ-R scores range from 0 to 104 as calibrated on the basis of a descriptive frequency index (never happened; happened only once; happened only twice; happened less than four times; happened about once a year; happened about twice a year; happened about once a month; happened about once a week; happened more than once a week). The VEQ-R relies on operational definitions of maltreatment acts that are differentiated by perpetrator source (parents, siblings, peers, domestic violence) and the nature of the abuse (verbal conflict, threats of violence, physical acts). For example, the Parental Physical Abuse (CPA) index provides an estimate of the frequency with which physical acts were directed toward the respondent by “a parent or step-parent” during upbringing (Physical Acts with or without Physical Injury: pushing, shoving, shaking, striking, kicking, punching, beating, burning or use of a weapon to inflict pain or injury). A CPA score of 3 would indicate that at least one of the physical abuse index acts was experienced on average three times a year over the 12 year recollection period (36 total acts, experienced on average twice a year). The same logic is followed to generate frequencies for the SPA (Sibling Physical Abuse), BULL (Peer Bullying), and OPV (Observed Parental Violence) subscales. A Family Emotional Abuse (FEA) index was derived using the average score for the three verbal conflict subscales of the VEQ-R (PVD; Parent-Child Verbal Discord; OPD; Observed Parental Discord; & SVD, Sibling Verbal Discord). Verbal conflict was defined in the VEQ-R as “yelling, cursing, damaging property, and other non-physical expressions of anger” directed toward the respondent. Childhood sexual abuse (CSA) index was identified using a supplemental question regarding the extent to which the respondent believed that he was “sexually abused prior to the age of 16” using a five-point metric (0 = never; 4 = very often).

VEQ-R psychometric properties were derived from college (n = 1220) and national (n = 1270) normative samples (King & Russell, 2017). Concurrent validity data from a subset of the studies cited below have established a raw score of 5 as a subscale threshold for “Elevated Risk” of externalized maladjustment (King & Russell, 2017). Test-retest reliability correlation and kappa coefficients were provided from the normative college sample (CPA, $\alpha = 0.87$, $r = 0.81$, $\kappa = 0.68$; SPA, $\alpha = 0.87$, $r = 0.63$, $\kappa = 0.57$; OPV, $\alpha = 0.90$, $r = 0.64$, $\kappa = 0.66$; & BULL, $\alpha = 0.82$, $r = 0.64$, $\kappa = 0.70$; PVD, $\alpha = 0.94$, $r = 0.73$; OPV, $\alpha = 0.92$, $r = 0.77$; SPV, $\alpha = 0.91$, $r = 0.72$, $\kappa = 0.67$).
α = .91, r = 0.67). These abuse indices have been associated with both internalized and externalized maladjustment (Green & King, 2009; A. King, 2014, 2014b; King, 2016; King, Auern, & Russell, 2018, 2018b; King, Ratzak et al., 2018; Moe, King, & Bailly, 2004; Mugge, Chase, & King, 2016; Mugge, King, & Klophaus, 2009; Russell, Veith, & King, 2015; Veith, Russell, & King, 2017; Walter & King, 2013).

2.2.2. Sexual experiences survey—Short form perpetration

The SES-SFP (Koss et al., 2006) provided estimates of the frequencies of a spectrum of unwanted sexually aggressive acts perpetrated since age 14. Respondents reported frequencies (0, 1, 2, or > 2, counted as 3) of different acts which represented either attempted (unsuccessful) or completed (successful) of coercion or rape. Coercion involved reliance on lies, threats (e.g., to end relationship, spread rumors, etc.), shaming, anger (without force), and/or other forms of verbal pressure to seduce a potential sexual partner. Rape was defined as a physical act intended to force undesired oral, vaginal, or anal copulation. Rape acts included taking advantage of a person who was “too drunk or out of it to stop what was happening.” Frotteurism was defined by unwanted touching, kissing, and clothing removal. These counts were aggregated into scores labelled as Frotteurism (FROT), Attempted Coercion (ACOER), Completed Coercion (CCOER), Attempted Rape (ARAPE), Completed Rape (CRAPE), Combined Coercion and Rape (COER/RAPE), and Total Acts of Sexual Aggression (SES-TOT). The total SES-TOT and COER/RAPE counts were differentiated by their respective frotteurism inclusion or exclusion.

2.3. Procedures

This Qualtrics survey was accessed through MTurk (www.mturk.com) which required an account that provided financial compensation ($0.40) for completion. This project was approved by our university IRB, and all respondents provided informed consent for their participation.

3. Results

3.1. Descriptive statistics

Descriptive statistics are provided in Table 1. The sexual aggression distributions are presented in Table 2. These maltreatment and aggression distributions were skewed, and square root transformations were completed prior to use of these variables in dimensional analyses. CSA was defined by one or more experiences of victimization prior to age 16. Raw scores exceeding 5 on the VEQ-R subscales for CPA, SPA, and OPV were used to identify “Elevated Risk” in those abuse forms as recommended previously (King & Russell, 2017). These VEQ-R thresholds assured that respondents classified in those maltreatment categories experienced more than 5 index acts per year over the 12 year retrospective recording period (> 60 total). The thresholds for the BULL and FEA predictors were raised to 25 and 35 respectively to assure comparability with the prevalence estimates of the other forms of maltreatment. These high-risk classifications were distributed as follows: CSA (n = 89, 18.2%); CPA (n = 47, 9.6%); OPV (n = 36, 7.4%); SPA (n = 78, 15.9%); BULL (n = 80, 16.2%); and FEA (n = 76, 15.5%). Since attempted and completed acts of coercion and rape were highly correlated (r = .82 & .88) this study focused on completed acts and SES-TOT scores. A total of 133 (27.2%) of the respondents acknowledged one or more acts of sexual aggression. Smaller subsets described completed acts coercion (n = 31, 5.3%) or rape (n = 36, 7.4%).

Table 1

Table 1 Descriptive Statistics for Predictor and Criterion Variables.

<table>
<thead>
<tr>
<th>Measures</th>
<th>Label</th>
<th>n</th>
<th>M</th>
<th>SD</th>
<th>Range</th>
<th>Skew</th>
</tr>
</thead>
<tbody>
<tr>
<td>Childhood Maltreatment Indicators</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Childhood Sexual Abuse</td>
<td>CSA</td>
<td>489</td>
<td>0.41</td>
<td>1.00</td>
<td>0-4</td>
<td>2.51</td>
</tr>
<tr>
<td>Parental Physical Abuse</td>
<td>CPA</td>
<td>482</td>
<td>4.32</td>
<td>16.37</td>
<td>0-104</td>
<td>4.76</td>
</tr>
<tr>
<td>Family Emotional Abuse</td>
<td>FEA</td>
<td>463</td>
<td>14.99</td>
<td>22.49</td>
<td>0-104</td>
<td>1.90</td>
</tr>
<tr>
<td>Observed Parental Violence</td>
<td>OPV</td>
<td>481</td>
<td>3.20</td>
<td>13.70</td>
<td>0-104</td>
<td>5.54</td>
</tr>
<tr>
<td>Sibling Physical Abuse</td>
<td>SPA</td>
<td>477</td>
<td>6.18</td>
<td>18.53</td>
<td>0-104</td>
<td>3.99</td>
</tr>
<tr>
<td>Peer Bullying</td>
<td>BULL</td>
<td>485</td>
<td>10.94</td>
<td>22.04</td>
<td>0-104</td>
<td>2.46</td>
</tr>
<tr>
<td>Sexual Aggression Indicators</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frotteurism</td>
<td>FROT</td>
<td>489</td>
<td>0.96</td>
<td>2.27</td>
<td>0-14</td>
<td>3.25</td>
</tr>
<tr>
<td>Attempted Coercion</td>
<td>ACOER</td>
<td>489</td>
<td>0.18</td>
<td>0.86</td>
<td>0-8</td>
<td>5.96</td>
</tr>
<tr>
<td>Completed Coercion</td>
<td>CCOER</td>
<td>489</td>
<td>0.16</td>
<td>0.76</td>
<td>0-8</td>
<td>6.61</td>
</tr>
<tr>
<td>Attempted Rape</td>
<td>ARAPE</td>
<td>489</td>
<td>0.25</td>
<td>1.10</td>
<td>0-12</td>
<td>6.05</td>
</tr>
<tr>
<td>Completed Rape</td>
<td>CRAPE</td>
<td>489</td>
<td>0.26</td>
<td>1.17</td>
<td>0-12</td>
<td>6.06</td>
</tr>
<tr>
<td>Combined Coercion and Rape</td>
<td>COER/RAPE</td>
<td>489</td>
<td>0.84</td>
<td>3.43</td>
<td>0-40</td>
<td>6.34</td>
</tr>
<tr>
<td>Total Acts of Sexual Aggression</td>
<td>SES-TOT</td>
<td>489</td>
<td>1.80</td>
<td>5.30</td>
<td>0-50</td>
<td>4.84</td>
</tr>
</tbody>
</table>

Note. These predictor and criterion distributions were all skewed and subsequently subjected to square root transformations prior to the dimensional analyses conducted for this study.
3.2. Regression analyses

CSA was found in an initial multivariate test to be a significant predictor of the five combined sexual aggression indicators (frotteurism, attempted coercion, attempted rape, completed coercion, and completed rape) indicators, $\Lambda(5, 391) = 9.44, p < 0.001 (\eta_p^2 = .108)$. CSA was then found to account for unshared variance in each of these five dependent measures and aggregated totals: Frotteurism, $F(7, 410) = 6.55, p < .001$ (Adjusted $R^2 = 0.085$), Completed Coercion, $F(7, 410) = 7.04, p < .001$ (Adjusted $R^2 = 0.103$), Attempted Coercion, $F(7, 410) = 5.44, p < .001$ (Adjusted $R^2 = 0.092$), Completed Rape, $F(7, 410) = 7.84, p < 0.001$ (Adjusted $R^2 = 0.139$), total attempted and completed coercion and rape (COER/RAPE), $F(7, 410) = 8.23, p < .001$ (Adjusted $R^2 = 0.108$), and Total Acts of Sexual Aggression (SES-TOT), $F(7, 410) = 7.93, p < .001$ (Adjusted $R^2 = 0.104$). These results are detailed in Table 3 and illustrated in Fig. 1. Bivariate correlation coefficients between individual abuse and sexual aggression indicators are presented in the far right column of Table 3. These CSA correlates were significantly stronger ($p < .01$) than those found for each of the remaining forms of maltreatment.

3.3. Risk group analyses

Table 4 presents the results of 18 independent ANCOVAs examining the effects of each form of abuse on three sexual aggression indicators (completed coercion, completed rape, and total acts of sexual aggression which included frotteurism). Respondent age and the remaining five forms of maltreatment were covaried in each analysis. Every high risk abuse group was found to predict one or more sexual aggression indicator, with the exception of peer bullying. Abuse associations with completed rape (CRAPE) warranted close attention given the large effect sizes and relative risk estimates, especially for childhood sexual abuse. Sexual aggression scores were lower among respondents with elevated family emotional abuse.

3.4. CSA interaction analyses

CSA interactions with the other abused cohorts (CPA, OPV, SPA, & FEA) were examined in a series of four post-hoc 2 (CSA) x 2 (other abuse group) ANCOVAs which controlled for variance accounted for by respondent age or the remaining forms of maltreatment. Total Acts of Sexual Aggression (SES-TOT) was the dependent measure in each analysis. CSA interactions were found with CPA, $F(1, 434) = 24.02, p < .001 (\eta_p^2 = .052)$, OPV, $F(1, 434) = 20.05, p < .001 (\eta_p^2 = .044)$, and FEA, $F(1, 434) = 12.01, p = .001 (\eta_p^2 = .027)$. The CSA x CPA interaction for total sexual aggression (SES-TOT) scores best illustrated the nature of these interactions: Low CPA & Low CSA ($n = 341, M = 0.99$); High CSA & Low CPA ($n = 61, M = .3.13$); Low CSA & High CPA ($n = 22, M = 0.55$); High CSA & High CPA ($n = 19, M = 11.47$).

3.5. Poly-victimization analyses

The distribution of cumulative maltreatment risks (CMR) varied among respondents (0 forms of abuse, $n = 304, 65.5%$; 1 form of

Table 2

SES-SFP Indictor Frequency Distributions.

<table>
<thead>
<tr>
<th>Acts</th>
<th>SES-SFP Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FROT</td>
</tr>
<tr>
<td>0</td>
<td>83.6%</td>
</tr>
<tr>
<td>1</td>
<td>7.8%</td>
</tr>
<tr>
<td>2</td>
<td>4.9%</td>
</tr>
<tr>
<td>3</td>
<td>4.7%</td>
</tr>
<tr>
<td>4</td>
<td>2.0%</td>
</tr>
<tr>
<td>5</td>
<td>1.6%</td>
</tr>
<tr>
<td>6</td>
<td>1.2%</td>
</tr>
<tr>
<td>7</td>
<td>0.8%</td>
</tr>
<tr>
<td>8</td>
<td>0.6%</td>
</tr>
<tr>
<td>9</td>
<td>0.4%</td>
</tr>
<tr>
<td>10</td>
<td>1.0%</td>
</tr>
<tr>
<td>11</td>
<td>0.2%</td>
</tr>
<tr>
<td>12</td>
<td>0.2%</td>
</tr>
<tr>
<td>13</td>
<td>0.4%</td>
</tr>
<tr>
<td>14</td>
<td>0.4%</td>
</tr>
<tr>
<td>n (&gt; 0)</td>
<td>129</td>
</tr>
<tr>
<td>% (&gt; 0)</td>
<td>26.5%</td>
</tr>
</tbody>
</table>

Note. SES-SFP = Revised Sexual Experiences Survey-Short Form Perpetration; FROT = acts of frotteurism (unwanted touching, kissing, and clothing removal); ACOER = attempted coercion (unwanted non-physical acts such as criticism, lies, threats) that did not culminate in copulation; CCOER = successful coercion (unwanted non-physical acts such as criticism, lies, threats) that culminated in copulation. ARAPE = attempted rape (use of physical force) that did not culminate in copulation. CRAPE = completed rape (use of physical force to achieve copulation).
abuse, \( n = 107, 23.1\% \); 2 forms of abuse, \( n = 36, 7.8\% \); and 3 or 4 forms of abuse, \( n = 17, 3.7\% \). CMR and Completed Rape (CRAPE) scores were significantly associated, \( r = 0.31, p < .001 \). The risk of being classified with Completed Rape (CRAPE > 0) was raised substantially by assignment to two, \( RR = 4.92, 95\% CI [2.07, 11.71], p < .001 \), or more, \( RR = 8.94, 95\% CI [3.82, 20.91], p < .0001 \), forms of polyvictimization.

![Fig. 1. These chart lines illustrate cell differences between abused and non- abused respondents for each maltreatment type. Each line charts estimated marginal means after covariance for respondent age and the five remaining maltreatment types. These data are presented in Table 4.](image-url)
4. Discussion

Data represents estimated marginal means for 18 independent ANCOVAs. Respondent age and remaining ANCOVA covariates in each dimensional analysis above. CSA = Childhood Sexual Abuse; CPA = Childhood Physical Abuse; SPA = Sibling Physical Abuse; OPV = Observed Parental Violence; BULL = Peer Bullying; FEA = Family Emotional Abuse. Cohen’s $d$ calculations based on the differences between the (covaried) estimated means.

Support was found for the six hypotheses tested in this study. Associations were found between four of six different forms of childhood maltreatment and adult sexual aggression (Hypothesis 1). The relationships found between CSA and the sexual aggression indicators were all significantly stronger than those found for each of the remaining forms of maltreatment (Hypothesis 2). CSA accounted for unshared variance in regression models predicting the sexual aggression indicators (Hypothesis 3) CSA links to the sexual aggression were magnified by the co-occurrence of parental physical abuse, sibling physical abuse, or exposure to intimate-partner violence (Hypothesis 4). The risk of perpetrating one or more acts of sexual aggression were raised substantially by CSA and other forms of childhood maltreatment (Hypothesis 5). Men recalling more than one form of maltreatment victimization were more likely to acknowledge histories of sexual aggression (Hypothesis 6).

These results were consistent with other studies showing associations between CSA and adult sexual aggression (Christopher et al., 2007; Davis et al., 2012; Krahé & Berger, 2017; Lambie et al., 2002; Lob & Gidycz, 2006; Merrill et al., 2001; Peterson et al., 2018; Plummer & Cossins, 2018). One large prospective sexual aggression analysis (Leach et al., 2016) failed to find significant specific CSA links, but this difference may have been attributable to their rigorous abuse and perpetrator definitional standards. The CSA effect sizes generated in this analysis for total sexual aggression ($d = 0.65$, $RR = 2.06$), completed coercion ($d = 0.51$, $RR = 5.57$), and completed rape ($d = 0.56$, $RR = 4.39$) closely approximated meta-analytic dimensional ($d = .67$) and categorical ($OR = 3.36$) estimates (Jespersen et al., 2009; Seto & Lalumière, 2010). The present results suggested stronger associations than found previously between CPA ($d = 0.56$, $RR = 4.39$), exposure to domestic violence ($d = 0.86$, $RR = 3.81$), and sibling physical abuse ($d = 0.35$, $RR = 2.56$). Emotional abuse in meta-analytic studies has not been recognized as a significant predictor, but men in this sample reporting more frequent sibling and parental verbal conflict during upbringing were curiously less likely to report acts of sexual aggression. Measurement differences may account partially for these discrepancies. Polyvictimization effects appeared stronger than those found for isolated forms of abuse in this study as well as others (Casey et al., 2009; Leach et al., 2016; Malamuth et al., 1995; White & Smith, 2004). In many respects, the ACE scale (Felitti et al., 1998) was developed in recognition that the individual count of different forms of adversity may be more important than the presence or severity of any unitary developmental insult. With some exception (Levenson et al., 2014), ACE scores have not been widely investigated in sexual aggression research. While polyvictimization substantially raised the risk of completed rape in this study ($RR = 8.94$, three or more forms of abuse), the constituent abuse main effects still proved salient as well.

An important unresolved question involves the extent to which different forms of abuse interact in their effect on sexual aggression. In this study, CSA effects were magnified by the co-occurrence of CPA, SPA, and FEA. Additive and interactive maltreatment effects warrant better differentiation in the literature. ACE scale researchers have often supplemented their dimensional score analyses with a high-risk classification scheme that relies on a threshold of usually four or more forms of adversity. While ACE
dimensional correlates contribute to the polyvictimization literature, analyses of specific abuse clusters warrant consideration as potential interaction sources. ACE high risk classifications seem to imply that the effect of individual challenges are magnified when they co-occur in a cluster of four or more adverse events. Those ACE high risk groups would not constitute viable interaction factors, however, since the specific adversity items that elevate the count would vary by participant. Closer inspection of ACE score data sets could provide an opportunity to cluster subsets of adversity items for purposes of post-hoc interaction testing. The presence of abuse interactions complicate a research puzzle that is already imposing. While challenging to disentangle, a distinction should still be made whenever possible between abuse main/specific effects, additive (polyvictimization) effects, and interactive effects. For polyvictimization, the impact of abuse occurs as a linear function of the number of contributing influences (ACE count). Interaction effects would otherwise be defined by the magnification of main effects by a co-occurring form of abuse. ACE classification cutoffs seems to imply that adversity clusters exert an interactive impact that is greater than the sum of the constituent additive effects. This possibility warrants further examination.

4.1. Design limitations and future directions

This study relied on retrospective, self-report data derived from an MTurk sample and cross-sectional methodology. The accuracy of these participant accounts could not be verified, and the self-reported acts of victimization and perpetration presumably must have widely in their consequence and clinical implication. The directionality and causality of these associations could not be established. These findings may not generalize to clinical, forensic, or community samples. Current understanding of sexual aggression may be advanced by analyses that help differentiate the main, additive (polyvictimization), and interactive effects of maltreatment.

References


