RESEARCH ON OFFENDERS AND SURVIVORS

Sexual Offending in Adolescence: A Comparison of Sibling Offenders and Nonsibling Offenders across Domains of Risk and Treatment Need

NATASHA E. LATZMAN
University of Nebraska–Lincoln, Lincoln, Nebraska, USA

JODI L. VILJOEN
Simon Fraser University, Burnaby, British Columbia, Canada

MARIO J. SCALORA
University of Nebraska–Lincoln, Lincoln, Nebraska, USA

DANIEL ULLMAN
Lincoln Regional Center, Lincoln, Nebraska, USA

Sibling sexual offending has received limited empirical attention, despite estimates that approximately half of all adolescent-perpetrated sexual offenses involve a sibling victim. The present study addresses this gap by examining male adolescent sibling \( (n = 100) \) and nonsibling offenders \( (n = 66) \) with regard to maltreatment histories and scores on two adolescent risk/need assessment instruments, the ERASOR and YLS/CMI. Adolescents who sexually abused a sibling, versus a nonsibling, were more likely to have histories of sexual abuse and been exposed to domestic violence and pornography. There were no group differences on ERASOR and YLS/CMI scales. This study adds to the limited discourse on sibling

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Address correspondence to Natasha Elkovitch Latzman, Division of Violence Prevention, Centers for Disease Control and Prevention, 4770 Buford Highway, MS F-64, Atlanta, GA 30341. E-mail: khq3@cdc.gov
sexual offending and the larger literature on the heterogeneity of adolescents who have sexually offended.

KEYWORDS sexual abuse, adolescent sexual offending, sibling, incest, family violence, risk assessment

Sexual offending in adolescence has increasingly gained the attention of juvenile justice, mental health, and public policy systems (Barbaree & Marshall, 2006; Chaffin, 2008). The Federal Bureau of Investigation’s National Incident-Based Reporting System indicates that offenders under the age of 18 are responsible for approximately one of every five to six sexual assaults (Snyder, 2008) and one of every three sexual assaults involving victims under the age of 18 (Snyder, 2001). Furthermore, it is estimated that approximately half of all adolescent-perpetrated offenses involve a sibling (Goldman & Goldman, 1998; Shaw, 1999).

Despite the high prevalence rate, sibling sexual offending is poorly understood and rarely the focus of empirical research (Ascherman & Safier, 1990; Cawson, Wattam, Brooker, & Kelly, 2000; Cyr, Wright, McDuff, & Perron, 2002; Worling, 1995). In fact, although sibling sexual abuse is estimated to occur two to five times more often than father–daughter incest (Cawson et al., 2000; Cole, 1982; Smith & Israel, 1987), the latter has received significantly more empirical attention. Thus, the majority of information regarding intrafamilial offending has been derived from studies comparing incestuous fathers/stepfathers to extrafamilial offenders (e.g., Olver & Wong, 2006). This research indicates that adults who target family members have significantly fewer overall treatment needs (Becker, 1998; Quinsey, Rice, & Harris, 1995; Studer, Clelland, Aylwin, Reddon, & Monro, 2000) and recidivate at lower rates than other types of sexual offenders (Hanson & Bussière, 1998). However, given the dearth of information regarding other forms of sexual abuse within the family, it is unclear the extent to which adolescent sibling offenders differ from nonsibling offenders with regard to risk factors and treatment needs.

RISK AND TREATMENT NEED

Empirical and clinical literatures have increasingly emphasized that adolescents who have sexually offended are a heterogeneous group and vary with regard to etiological pathways and psychiatric comorbidities (Becker, 1998; Knight & Prentky, 1993). In response to this heterogeneity, researchers have emphasized the unique risk factors and treatment needs in particular subgroups of offenders (e.g., Hagan & Cho, 1996; Hunter, Figueredo, Malamuth, & Becker, 2003; Parks & Bard, 2006; Van Wijk, van Horn, Bullens, Bijleveld, & Doreleijers, 2005). This research highlights the importance of
appropriately matching interventions to the level of risk presented by the youth and targeting the dynamic, changeable factors (criminogenic needs) that are directly related to recidivism (Andrews, Bonta, & Hoge, 1990; Hoge, Andrews, & Leschied, 2002). In other words, risk and need assessments assist mental health professionals with determining what to target and at what point intervention should occur (Bonta & Andrews, 2007; Hanson & Harris, 2001; Lipsey & Wilson, 1998).

Although the literature includes a number of case studies and file reviews (e.g., Abrahams & Hoey, 1994; Adler & Schutz, 1995; Bess & Janssen, 1982; Carlson, Maciol, & Schneider, 2006; Pierce & Pierce, 1987; Smith, 1988; Smith & Israel, 1987), only three empirical studies to date have simultaneously examined risk and treatment need in sibling and nonsibling offenders. O’Brien (1991) compared youth who offended against a sibling \( (n = 50) \) to youth who offended against a nonsibling child \( (n = 57) \) and nonsibling similar-aged peer and/or adult \( (n = 38) \). Based on information gathered from intake files, sibling offenders had a higher average number of victims and began engaging in sexually abusive behaviors at a younger age than did the nonsibling offenders. Furthermore, clinician ratings indicated that sibling offenders were more likely than the comparison youth to have histories of sexual and physical victimization and other behavioral problems (e.g., diagnosis of conduct disorder) and live with “severely disturbed” families. Unfortunately, this study utilized nonstandardized measures, and data regarding the reliability of clinician ratings were not reported.

In a prospective investigation, Worling (1995) compared sibling offenders \( (n = 32) \) to nonsibling offenders \( (n = 28) \) enrolled in a treatment program addressing sexually abusive behaviors. Self-report measures and youth report during clinical treatment sessions indicated that adolescents who sexually abused siblings were more often victims of sexual abuse and reported more family dysfunction (indicated by a more negative and argumentative family environment, more parental physical punishment, greater feelings of parental rejection, heightened marital discord, and less overall satisfaction with family environment) when compared to adolescents who offended against a nonsibling. Interestingly, the two groups did not differ on self-report measures of individual functioning (depression, aggression, hostility, peer popularity, or self-esteem). Similarly, Worling (2001) found that sibling offenders \( (n = 31) \) did not significantly differ from extrafamilial offenders \( (n = 66) \) with regard to California Psychological Inventory personality profiles. However, it is possible that group differences on certain family variables and individual characteristics were obscured due to the reliance on adolescent self-report. Nonetheless, the results of this and O’Brien’s (1991) investigation are consistent with case studies (e.g., Canavan, Meyer, & Higgs, 1992; Pierce & Pierce, 1987; Smith, 1988; Smith & Israel, 1987) implicating family violence and dysfunction in the development of adolescent sibling sexual abuse.
Along these lines, some researchers have emphasized the importance of examining additional variables indicative of a dysfunctional home environment, particularly those that are sexual in nature (e.g., O’Brien, 1991; Worling, 1995; Smith & Israel, 1987). For example, an intergenerational pattern of incest (e.g., Breer, 1987) and parental extramarital affairs (Smith & Israel, 1987) have been shown to be associated with sibling sexual offending. In addition, recent work suggests that compared to adolescents who commit nonsexual offenses, adolescents who sexually offend experience earlier and more frequent exposure to sex, either by viewing others engaged in sexual activity or by viewing pornography (Beauregard, Lussier, & Proulx, 2004; Seto & Lalumière, 2010). It has been hypothesized that exposure to pornography in the home may serve as an etiological factor in the onset of sibling sexual abuse specifically (Worling, 1995), although to date this has not been examined empirically. In addition to sexual-specific variables, examinations of adolescent sibling and nonsibling offenders across broader domains of risk and need (such as education and substance use) are needed. Investigations of this kind will add to the limited discourse on adolescent sibling sexual offending and the larger discourse on evidenced-based treatment in juvenile justice and child mental health systems.

CURRENT STUDY

The primary aim of the current study was to examine adolescent sibling and nonsibling offenders across various domains of risk and treatment need by comparing total and subscale scores on two adolescent risk/need assessment instruments. No research to date has utilized formal risk and need instruments when examining these two populations. Compared to unstructured ratings, structured risk assessment instruments provide a more comprehensive and evidence-based assessment of factors associated with risk and need (e.g., Bonta, 2002; Borum, 2000; Hoge, 2005). In addition to examining risk/need via the assessment instruments, we also assessed youth treatment need by examining sibling and nonsibling offenders’ maltreatment histories and rates of exposure to pornography.

An examination of risk/treatment needs, including that of maltreatment history, has substantial clinical relevance: Information about a youth’s risk factors can be used to develop individualized treatment and supervision plans, evaluate treatment progress, and guide decisions about treatment termination. Consistent with extant research, we expected that adolescents who sexually abused a sibling would be significantly more likely to have a history of sexual abuse and family dysfunction (e.g., higher scores on instrument subscales indicating a stressful family environment/poor parenting; higher rates of exposure to domestic violence) than those who abused a nonsibling. Although not yet examined, but theorized as a risk factor (e.g., Worling,
1995), we also expected sibling offenders to have higher rates of exposure to pornography. Finally, due to a paucity of theoretical assertions and empirical research, we do not have any a priori hypotheses with regard to broader forms of treatment need assessed by the risk/need instruments (e.g., educational, substance use risk/needs).

**METHOD**

**Participants**

The present study included 166 male adolescents who had been referred to a residential sex offender program in the Midwestern United States. All youth met the following program admission criteria: Between 13 and 17 years of age, intellectual and adaptive functioning at least at the borderline level, adjudicated delinquent of a sexual offense and mandated to receive treatment, and demonstrated self-control that would allow functioning in an unlocked treatment program. The mean age of youth at admission was 15.25 years ($SD = 1.56$) and 16.13 years ($SD = 1.52$) at discharge. The majority of the youth were White ($n = 138, 83.1\%$), and a minority were African American ($n = 14, 8.4\%$), Hispanic ($n = 8, 4.8\%$), or American Indian/Alaskan Native ($n = 2, 1.2\%$). These 166 youth include nearly all those who had been admitted to the program between 1994 and 2005 and are a subset of youth examined in a previous study (Viljoen, Scalora, et al., 2008).

Consistent with Worling (1995), if a youth had ever offended against a sibling (biological, half, step, foster, or adopted), he was categorized as a sibling offender ($n = 100, 60.2\%$); otherwise, he was assigned to the nonsibling group ($n = 66, 39.8\%$). After dividing the sample into two groups, victim age and gender were examined to ensure that comparisons between sibling and nonsibling offenders were not confounded by the age or gender of the victim. Neither victim age, $t(150) = 1.28, p > .05$, nor victim gender, $\chi^2(2, N = 166) = 2.24, p > .05$, were related to victim relationship. Additional offense information can be found in Table 1.

**Procedure**

Raters, graduate students in clinical forensic psychology, assessed risk and treatment need for each youth using two instruments: The Estimate of Adolescent Sexual Offense Recidivism (ERASOR; Worling & Curwen, 2001) and the Youth Level of Service/Case Management Inventory (YLS/CMI;
<table>
<thead>
<tr>
<th>Relationship to victim</th>
<th>Type of Index Offense</th>
<th>Sibling (n = 100)</th>
<th>Nonsibling (n = 66)</th>
<th>χ²</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Genital Penetration</td>
<td>43 (42.6)</td>
<td>20 (30.8)</td>
<td>2.50</td>
</tr>
<tr>
<td></td>
<td>Anal Penetration</td>
<td>43 (42.6)</td>
<td>16 (24.6)</td>
<td>5.57*</td>
</tr>
<tr>
<td></td>
<td>Digital Penetration</td>
<td>12 (11.9)</td>
<td>10 (15.4)</td>
<td>.42</td>
</tr>
<tr>
<td></td>
<td>Oral-Genital Contact</td>
<td>52 (51.5)</td>
<td>30 (46.2)</td>
<td>.45</td>
</tr>
<tr>
<td></td>
<td>Fondling</td>
<td>63 (62.4)</td>
<td>40 (65.1)</td>
<td>.01</td>
</tr>
<tr>
<td></td>
<td>Exhibitionism</td>
<td>11 (10.9)</td>
<td>12 (18.5)</td>
<td>1.90</td>
</tr>
<tr>
<td>Sex of Victims</td>
<td>Male</td>
<td>23 (22.8)</td>
<td>17 (26.2)</td>
<td>.31</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>45 (44.6)</td>
<td>33 (50.8)</td>
<td>.77</td>
</tr>
<tr>
<td></td>
<td>Both Male and Female</td>
<td>33 (32.7)</td>
<td>14 (21.5)</td>
<td>2.24</td>
</tr>
<tr>
<td>Use of Force in Offense (Yes or Possibly)</td>
<td>76 (75.2)</td>
<td>47 (73.4)</td>
<td>.07</td>
<td></td>
</tr>
<tr>
<td>Number of known victims</td>
<td>5.02 (3.08)</td>
<td>6.95 (9.20)</td>
<td>1.32</td>
<td></td>
</tr>
<tr>
<td>Age Gap Between Victim and Perpetrator (years)</td>
<td>6.27 (3.52)</td>
<td>7.17 (2.93)</td>
<td>1.70</td>
<td></td>
</tr>
<tr>
<td>Age at first known sexual offense</td>
<td>10.89 (2.59)</td>
<td>10.40 (3.10)</td>
<td>−.78</td>
<td></td>
</tr>
</tbody>
</table>

Note: **Does not add up to 100% as some youth had multiple index offenses.  
*p < .05.

Hoge et al., 2002), both of which are described in the following sections. These ratings, as well as coding of maltreatment history, were completed based on reviews of comprehensive psychological file information (generally at least 600 pages in length), which included psychological evaluations and ongoing psychological assessments (e.g., youth, teacher, and staff report on the Behavioral Assessment System for Children, BASC; Reynolds & Kamphaus, 1992), psychiatric reports, medical and psychopharamalogical evaluations, social work reports (including annual clinical interviews with the youths' guardian(s) and caseworker(s), treatment plans, therapy progress notes, teacher assessments and school records, and criminal information. Raters were instructed to complete the instruments according to the instrument instructions (with the exception of the inclusion of a clinical interview). Although prospective studies are ideal, previous research does support the use of file information in the retrospective scoring of these risk instruments when interviews are not feasible (Campbell, Porter, & Santor, 2004; Gretton, McBride, Hare, O’Shaughnessy, & Kumka, 2001). That is, research indicates that there is high correspondence between ratings based on file information only and those based on interview and file information.
Prior to beginning the study, the graduate student raters underwent a thorough training procedure that involved both didactic and applied procedures. Raters read the YLS/CMI and ERASOR manuals and were assigned several key readings on risk assessment as well as the specific instruments. After training, raters independently completed five practice files, which were then discussed in order to examine discrepancies.

Measures

YLS/CMI

The YLS/CMI (Hoge et al., 2002) is an inventory developed to evaluate juvenile offenders’ general recidivism risk and to assist in case management planning. Based on the risk, need, and responsivity principles of case classification, this tool provides an empirically validated approach to assessing youths’ risk factors and treatment needs, helps to ensure consistency when evaluating clients, and assists in determining appropriate services and interventions (Viljoen, Elkovitch, & Ullman, 2008). The YLS/CMI was designed to assess general risk of future offending rather than sexual violence risk specifically. However, given that sexually abusive adolescents are more likely to engage in nonsexual, versus sexual, reoffending (McCann & Lussier, 2008), it is important that risk factors and treatment needs relating to general recidivism are assessed.

The YLS/CMI includes 42 risk/need factors, which are divided into eight subscales: Prior and Current Offenses, Family Circumstances/Parenting, Education/Employment, Peer Associations, Substance Abuse, Leisure/Recreation, Personality/Behavior, and Attitudes/Organization. These factors are rated as present or absent and then summed to calculate both subscale and total risk/needs scores, all of which were examined in the present study. Following the instrument instructions, raters were instructed to code the instrument based on file information gathered over the past 12 months in treatment. If the youth was in treatment for fewer than 12 months, then all file information was utilized to code the instrument.

A number of studies have supported the psychometric properties of the YLS/CMI, including interrater reliability (e.g., Edens, Campbell, & Weir, 2007; Holsinger, Lowenkamp, & Latessa, 2006; Marczyk, Heilbrun, Lander, & DeMatteo, 2003; Onifade et al., 2008; Schmidt, Hoge, & Gomes, 2005; Schwalbe, 2007; for a review see Hoge, 2005). Furthermore, research has indicated that this measure is able to predict nonsexual violence and offending in samples of adolescents who have offended sexually (Skowron, 2004; Viljoen, Elkovitch, Scalora, & Ullman, 2009).

To assess interrater reliability, intraclass correlation coefficients for single raters (ICC1s) were calculated for a random sample of 11.4% of the cases (n = 19). Using a two-way random effects model (McGraw & Wong,
1996), the ICCs for the YLS/CMI subscales fell in the excellent range (.80 to .92), with the exception of the Recreation/Leisure subscale, which fell in the “poor” range (.24). We excluded the YLS/CMI Recreation/Leisure subscale from further analyses due to the poor interrater agreement.

ERASOR

The ERASOR (Worling & Curwen, 2001) is a checklist of risk factors designed to assess risk of sexual violence among adolescents aged 12 to 18 who have committed a prior sexual offense. It consists of 25 items that are grouped into five categories: Sexual Interests, Attitudes, and Behaviors (e.g., deviant sexual interests, attitudes supportive of sexual offending); Historical Sexual Assaults (e.g., past sexual assault of a child, diverse sexual assault behaviors); Psychosocial Functioning (e.g., lack of intimate peer relationships, poor self-regulation); Family/Environmental Functioning (e.g., high stress family environment, problematic parent–offender relationship); and Treatment (e.g., incomplete sexual offense–specific treatment). Each item is coded present, possibly or partially present, not present, or unknown. In the current study, we derived subscale and total scores from summing the items (see Viljoen et al., 2009). Following the instrument instructions, raters were instructed to code the instrument based on file information gathered over the past six months in treatment. If the youth was in treatment for fewer than six months, then all file information was utilized.

Worling (2004) found that the ERASOR has adequate interrater reliability, internal consistency, and item-total correlations, and it was able to distinguish known repeat sex offenders from first-time sex offenders (see also, Hersant, 2007). In our sample, intraclass correlation coefficients for single raters (ICC1s) were calculated for a random sample of 11.4% of the cases (n = 19). Using a two-way random effects model (McGraw & Wong, 1996), the ICC1s for the ERASOR total score and four subscales fell in the “excellent” range (.85 to .96) with the Psychosocial Functioning subscale falling in the “good” range (.67; Cicchetti & Sparrow, 1981).

Maltreatment Histories and Exposure to Pornography

As noted above, raters had access to comprehensive psychological file information that detailed histories of abuse (including adolescent self-report, parent-report, and Child Protective Services [CPS] reports). Types of maltreatment examined include sexual, physical, and emotional abuse; neglect; and exposure to domestic violence. These variables were coded rather conservatively to minimize the possibility of false-positive cases (see, Drake, 1995; Eckenrode, Powers, Doris, Munsch, & Bolger, 1988). For example, abuse was marked as “present” if substantiated by CPS or if corroborated by alternative.
sources (e.g., both parent and youth report) and “not present” if the file information consistently noted a lack of abuse history or if it was unclear or ambiguous as to whether a certain form of abuse occurred. Raters also coded whether the youth had been exposed to pornography within the home, a variable that is consistently assessed at intake into the treatment facility via individual interviews with both the youth and the caregiver(s). This variable was also coded conservatively; that is, marked as “present” if clearly indicated in file information and “not present” if file information noted a lack of pornography exposure or if records were unclear or ambiguous.

For a random sample of 22.9% of the cases (n = 37), Cohen’s kappa coefficient was calculated to assess interrater reliability of the coding of maltreatment histories and exposure to pornography. Results indicated that coders had “substantial overlap” (.67 to .78) for ratings of physical abuse and exposure to pornography and “near perfect agreement” (.84 to 1.00; Landis & Koch, 1977) with regard to sexual abuse, neglect, and emotional abuse.

DATA ANALYSIS

Independent t-tests were utilized to examine offender group assignment and continuous variables (instrument total scores and subscale scores). Chi-square analyses were used in order to examine the strength of the relationship between offender–victim relationship and dichotomous variables (maltreatment history and exposure to pornography).

RESULTS

Risk and Treatment Needs

The first set of analyses was conducted to evaluate our first question, whether the two groups of offenders differed with regard to domains of risk and treatment need on the YLS/CMI and ERASOR. No significant differences were found with regard to instrument total scores or subscale scores. That is, adolescents with sibling and nonsibling victims presented with similar levels of risk and treatment need as assessed by the YLS/CMI and ERASOR (see Table 2).

To complement the analyses with the YLS/CMI and ERASOR, chi-square analyses were conducted to investigate whether adolescents with sibling, versus nonsibling, victims differed with regard to maltreatment histories. As shown in Table 3, adolescents with sibling victims were significantly more likely than those with nonsibling victims to have histories of sexual abuse and been exposed to domestic violence. Furthermore, sibling offenders were significantly more likely than nonsibling offenders to have been exposed
TABLE 2 Risk/Treatment Needs by Relationship to Victim

<table>
<thead>
<tr>
<th>Risk/Need scales</th>
<th>Relationship to victim</th>
<th></th>
<th></th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sibling $M$ (SD)</td>
<td>Nonsibling $M$ (SD)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>YLS/CMI</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Score</td>
<td>17.21 (6.00)</td>
<td>18.28 (6.20)</td>
<td>1.11</td>
<td></td>
</tr>
<tr>
<td>Prior and Current Offenses</td>
<td>.92 (1.27)</td>
<td>1.11 (1.26)</td>
<td>.97</td>
<td></td>
</tr>
<tr>
<td>Family Circumstances/Parenting</td>
<td>3.75 (1.72)</td>
<td>3.98 (1.72)</td>
<td>.85</td>
<td></td>
</tr>
<tr>
<td>Education/Employment</td>
<td>3.50 (2.10)</td>
<td>4.04 (1.61)</td>
<td>1.80</td>
<td></td>
</tr>
<tr>
<td>Peer Associations</td>
<td>2.21 (.78)</td>
<td>2.30 (1.61)</td>
<td>.64</td>
<td></td>
</tr>
<tr>
<td>Substance Abuse</td>
<td>.59 (.97)</td>
<td>.90 (1.15)</td>
<td>1.88</td>
<td></td>
</tr>
<tr>
<td>Personality/Behavior</td>
<td>3.67 (1.64)</td>
<td>3.54 (1.48)</td>
<td>.54</td>
<td></td>
</tr>
<tr>
<td>Attitudes/Organization</td>
<td>2.19 (1.53)</td>
<td>2.20 (2.62)</td>
<td>.04</td>
<td></td>
</tr>
<tr>
<td>ERASOR</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Score</td>
<td>25.26 (7.38)</td>
<td>25.21 (7.50)</td>
<td>−.04</td>
<td></td>
</tr>
<tr>
<td>Sexual Interests, Attitudes, Behaviors</td>
<td>4.15 (1.75)</td>
<td>4.35 (1.65)</td>
<td>.75</td>
<td></td>
</tr>
<tr>
<td>Historical Sexual Assaults</td>
<td>10.84 (5.70)</td>
<td>10.73 (3.87)</td>
<td>.20</td>
<td></td>
</tr>
<tr>
<td>Psychosocial Functioning</td>
<td>6.22 (2.55)</td>
<td>6.00 (2.87)</td>
<td>.53</td>
<td></td>
</tr>
<tr>
<td>Family/Environmental Functioning</td>
<td>2.87 (2.05)</td>
<td>3.05 (2.32)</td>
<td>.46</td>
<td></td>
</tr>
<tr>
<td>Treatment</td>
<td>1.17 (1.61)</td>
<td>1.07 (2.32)</td>
<td>−.24</td>
<td></td>
</tr>
</tbody>
</table>

Note: No comparisons reported are significant.

TABLE 3 Maltreatment Histories by Relationship to Victim

<table>
<thead>
<tr>
<th>Type of maltreatment</th>
<th>Relationship to victim</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sibling $n$ (%)</td>
<td>Nonsibling $n$ (%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sexual Abuse</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perpetrator a Relative</td>
<td>57.4 (58)</td>
<td>53.0 (35)</td>
<td>6.22*</td>
<td></td>
</tr>
<tr>
<td>Perpetrator an Acquaintance/Friend/Peer</td>
<td>21 (39.3)</td>
<td>16 (47.1)</td>
<td>.80</td>
<td></td>
</tr>
<tr>
<td>Perpetrators both Relative and Acquaintance/Friend/Peer</td>
<td>10 (17.9)</td>
<td>5 (14.7)</td>
<td>.15</td>
<td></td>
</tr>
<tr>
<td>Physical Abuse</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perpetrator a Relative</td>
<td>50 (49.5)</td>
<td>29 (44.6)</td>
<td>.38</td>
<td></td>
</tr>
<tr>
<td>Perpetrator an Acquaintance/Friend/Peer</td>
<td>46 (93.9)</td>
<td>24 (82.8)</td>
<td>2.45</td>
<td></td>
</tr>
<tr>
<td>Perpetrator both Relative and Acquaintance/Friend/Peer</td>
<td>2 (4.1)</td>
<td>5 (10.3)</td>
<td>1.19</td>
<td></td>
</tr>
<tr>
<td>Emotional Abuse</td>
<td>14.9 (15)</td>
<td>26.2 (17)</td>
<td>3.80</td>
<td></td>
</tr>
<tr>
<td>Neglect</td>
<td>32.7 (33)</td>
<td>32.5 (21)</td>
<td>2.10</td>
<td></td>
</tr>
<tr>
<td>Domestic Violence Exposure</td>
<td>57.4 (58)</td>
<td>30.8 (20)</td>
<td>11.28**</td>
<td></td>
</tr>
<tr>
<td>Exposure to Pornography</td>
<td>57.4 (58)</td>
<td>36.9 (24)</td>
<td>6.65*</td>
<td></td>
</tr>
</tbody>
</table>

Note: *p < .05; **p < .01.

to pornography. There were no group differences with regard to rates of physical abuse, emotional abuse, or neglect.

In addition, more specific characteristics of the adolescents’ maltreatment experience(s) were examined. These analyses indicated no group differences with regard to the adolescent’s relationship to the perpetrator in cases of sexual or physical abuse. For adolescents who had experienced sexual abuse, relatives (e.g., biological, step or adopted parents, uncles) and acquaintances/peers were the most common perpetrators for both siblings
and nonsiblings. As would be expected, all cases of neglect occurred within the family and the large majority of cases of emotional abuse (100% \([n = 31]\) of sibling offenders, 85.7% \([n = 14]\) of nonsibling offenders) occurred within the family.

DISCUSSION

The current investigation is the first to utilize adolescent risk/need instruments to compare two groups of adolescents: Those adjudicated for sexually abusing a sibling versus those who had abused a nonsibling. This study adds to broader literature on sibling abuse (see, Caffaro & Conn-Caffaro, 1998; Finkelhor, Turner, & Ormrod, 2006) as well as the more specific literature on the heterogeneity of adolescents who have sexually offended. As will be discussed, the results have implications for both juvenile justice and adolescent mental health systems.

Research indicates that adults who sexually abuse family members present with fewer risk factors and treatment needs than extrafamilial offenders (Becker, 1998; Studer et al., 2000); however, our results challenge the assumption that this is also true of adolescent sibling sexual offenders. Consistent with prior research (e.g., O’Brien, 1991; Worling, 1995), sibling offenders in our sample were significantly more likely than nonsibling offenders to have histories of sexual abuse. These group differences are bolstered by our finding that neither victim age nor victim gender was related to victim relationship, as research indicates that adolescents who target younger children are more likely than those selecting similar age peers to have histories of sexual abuse (e.g., Ford & Linney, 1995). Second, sibling offenders were more likely to have been exposed to pornography, a variable which to date has received only theoretical but not empirical attention.

Furthermore, sibling offenders were more likely than their nonsibling offender counterparts to have been exposed to domestic violence. Contrary to our expectations, however, groups did not differ with regard to instrument subscales that assess family dysfunction (i.e., YLS/CMI Family Circumstances/Parenting and ERASOR Family/Environmental Functioning). This may be due to subscale content; that is, these subscales include items that assess poor parenting more generally rather than exposure to domestic violence specifically. Compared to community samples, research indicates that family dysfunction (i.e., low parental involvement, criminal activity in other family members) is elevated in families of adolescents who have offended sexually (e.g., Awad, Saunders, & Levine, 1984; Kobayashi, Sales, Becker, Figueredo, & Kaplan, 1995). Our results indicate that more aggressive family dysfunction (i.e., domestic violence) may be particularly elevated in families in which sibling sexual abuse has occurred. It is possible that for
sibling offenders, domestic violence may be a model for poor interpersonal boundaries and intrusive behavior, contributing to behavior consistent with the attitude that family members are appropriate targets of interpersonal violence (Davis & Leitenberg, 1987; Worling, 1995). Exposure to domestic violence and a sexualized home environment (in this case, exposure to pornography and/or child sexual abuse) may render adolescents particularly at risk for sexual violence. This is an area for future longitudinal research to explore.

In general, these findings underscore the importance of providing treatment to all family members in addition to the adolescent. Indeed, research indicates a comprehensive, family-based approach with certain offense specific interventions may be the most effective treatment for reducing recidivism in sexually abusive adolescents (e.g., Multisystemic Therapy; see Borduin, Henggeler, Blaske, & Stein, 1990; Borduin, Schaeffer, & Heiblum, 2009; Letourneau et al., 2009). Research is needed to determine whether family-based treatments, including Multisystemic Therapy, are differentially effective with various populations of adolescents, including sibling offenders. Indeed, it is not yet clear whether certain factors may diminish the positive impact of this intervention. For example, research suggests that domestic violence may limit the effectiveness of primary preventions to reduce child abuse and neglect (Eckenrode et al., 2000). Little is known, however, about whether family-based interventions are more or less effective for tertiary prevention of adolescent sexual offending when domestic violence is present.

The implications of the present study are bolstered by the use of comprehensive, empirically based indices of adolescent risk and need. Furthermore, expanding on prior research in this area (e.g., O’Brien, 1991), a subsample of youth was coded by two raters in order to permit interrater reliability. Coders had “substantial overlap” to “near perfect agreement” in interrater reliability for maltreatment histories and exposure to pornography, and, with the exception of the YLS/CMI Recreation/Leisure subscale, interrater reliability for the risk assessment instruments was good to excellent. Additional strengths include a larger sample size than utilized in prior research (O’Brien, 1991; Worling, 1995; Worling, 2001) and the use of extensive file information rather than relying solely on adolescent report. Furthermore, conservative file coding was utilized to prevent overestimating the prevalence of maltreatment and exposure to pornography.

Nonetheless, a number of limitations suggest caution about the study’s conclusions. It is important that the characteristics of our sample be considered when interpreting the results. The majority of the adolescents in our study engaged in coercive and aggressive sexual behavior toward children at least three years younger than themselves. For example, more than 70% of the youth in both groups used or possibly used verbal and/or physical force with their victims and a particularly high percentage of sibling
offenders engaged in anally penetrative offenses (approximately 47%). More normative or developmentally expected sexual behavior between younger children (less than age 12; see, Elkovitch, Latzman, Hansen, & Flood, 2009) or similar-aged siblings may not evoke the serious criminal justice sanctions that were imposed on the offenders in this study. Along these lines, it is important to note that all adolescents in our study were adjudicated and referred by the juvenile court. Thus, it is possible that sibling offenders may generally be seen as low risk, unless they are perceived to have more extensive criminogenic risk/needs. As noted by Finkelhor (2008), the criminal justice system has been traditionally reluctant to become involved in intrafamily matters except when the violations are severe. Thus, the level of risk and treatment need may not generalize to all adolescents who engage in sexual behavior with siblings. It is important that future research examine the process whereby juvenile or family courts make placement decisions regarding sexually abusive youth and whether this process differs in cases of sibling sexual abuse.

Second, measurement of risk and treatment need was limited to the YLS/CMI and ERASOR ratings. Some areas of treatment need, particularly psychopathology (e.g., posttraumatic stress, depression), may be better assessed by diagnostic interviews, adolescent self-report, and/or caregiver-report measures. The degree to which sibling offenders present with posttraumatic stress symptomatology may be a particularly important area for future work to explore. Reviews of the literature indicate that posttraumatic stress and sexualized behaviors are the two most reliably identified symptom clusters following child sexual abuse (Kendall-Tackett, Williams, & Finkelhor, 1993), a stressor found in almost 60 percent of the sibling-offender group.

Similarly, although we used three measures of family dysfunction (one scale each on the YLS/CMI and ERASOR and a file-based index of domestic violence exposure), the full range of dysfunction was likely not captured. Raters in our study relied solely on file information to code the instruments. Previous research indicates that interview- and file-based ratings are strongly associated (Campbell et al., 2004; Gretton et al., 2001), and the files in our study were comprehensive and included results of standardized emotional/behavioral assessments (e.g., BASC; Reynolds & Kamphaus, 1992). Nonetheless, dynamic factors may be particularly difficult to assess without a clinical interview, and it is important that future research utilize file reviews, clinical interviews, and contact with collateral sources as well as more traditional psychometric and observational methods of assessment. Future work should also examine rates of recidivism and whether there are specific and differential risk factors for reoffense in sibling versus nonsibling offenders.

Finally, it is important to note that we coded the presence of maltreatment rather conservatively. That is, only cases in which file information was
clear about whether abuse occurred (e.g., was substantiated by CPS) were coded as “present.” It is possible that this coding system underestimated the actual incidence of maltreatment for both groups (see, Drake, 1996). It will also be important for future work to more fully examine pornography exposure within the home, including examining age at first exposure, frequency of exposure, and the content of the pornographic material (e.g., level of violence). For example, recent work suggests that adolescents who sexually offend often are younger at first exposure to pornography than their counterparts who offend nonsexually (Beauregard et al., 2004; Seto & Lalumière, 2010), and the relationship between pornography and sexually aggressive behavior in early and middle adolescence appears to be driven by the violent content of the pornography (Ybarra, Mitchell, Hamburger, Diener-West, & Leaf, 2010). It is also possible that exposure to pornography may negatively impact the sibling-victim in addition to the sibling-offender. Early exposure to pornography may impact a child’s view of what is normative and impair the ability to avoid, deter, or negotiate from dangerous situations, or what Finkelhor (2008) has termed the “protection” process in his dynamic model of victimization.

Limitations notwithstanding, results suggest that in general, sibling offenders present with similar overall levels of risk and treatment need when compared to nonsibling offenders. However, results also highlight sexual victimization and factors within the family environment (i.e., domestic violence and exposure to pornography) as particular areas of dysfunction with sibling offenders. Future prospective research utilizing empirically sound measures and larger samples can aid in our understanding of familial sexual abuse, and replication would increase confidence in our findings. In particular, it will be important for future work to examine whether the juvenile justice system differentially screens and refers adolescents with sibling versus nonsibling victims, differential effectiveness of treatment programs, and whether recidivism rates differ for these two groups. With greater understanding, more effective interventions aimed at preventing the onset and reoccurrence of sexually abusive behaviors can be developed.

REFERENCES


**AUTHOR NOTE**

Natasha E. Latzman, PhD, is a post-doctoral fellow in the Division of Violence Prevention at the Centers for Disease Control and Prevention, Atlanta, GA.

Jodi L. Viljoen, PhD, is a Michael Smith Foundation for Health Research Scholar and Assistant Professor at Simon Fraser University, Burnaby, BC, Canada.

Mario J. Scalora, PhD, is an Associate Professor in the Clinical Psychology Training Program at the University of Nebraska-Lincoln, Lincoln, Nebraska.

Daniel Ullman, PhD, MS, is director of the Whitehall Sex Offender Program, Lincoln Regional Center, Lincoln, Nebraska.