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Adverse Childhood Experiences in the Lives of Male Sex Offenders: Implications for Trauma-Informed Care

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Abstract

This study explored the prevalence of childhood trauma in a sample of male sexual offenders (*N* = 679) using the Adverse Childhood Experience (ACE) scale. Compared with males in the general population, sex offenders had more than 3 times the odds of child sexual abuse (CSA), nearly twice the odds of physical abuse, 13 times the odds of verbal abuse, and more than 4 times the odds of emotional neglect and coming from a broken home. Less than 16% endorsed zero ACEs and nearly half endorsed four or more. Multiple maltreatments often co-occurred with other types of household dysfunction, suggesting that many sex offenders were raised within a disordered social environment. Higher ACE scores were associated with higher risk scores. By enhancing our understanding of the frequency and correlates of early adverse experiences, we can better devise trauma-informed interventions that respond to the clinical needs of sex offender clients.

Keywords

adverse childhood experiences, sexual offender treatment, trauma-informed care

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Over the past few decades, researchers have established that the prevalence of early traumatic experiences such as child maltreatment and family dysfunction is far greater than previously recognized (Centers for Disease Control and Prevention [CDC], 2013b). Multiple types of adversity are often present and research has demonstrated that cumulative experiences of childhood trauma lead to alarming increases in the risk for a range of health and social problems (Anda, Butchart, Felitti, & Brown, 2010; Felitti, 2002; Felitti et al., 1998). Emerging evidence also suggests that early traumatic experiences are common in the lives of sexual offenders (Jespersen, Lalumière, & Seto, 2009; Reavis, Looman, Franco, & Rojas, 2013). A clear understanding of the scope and impact of early adversity is important in the development of treatment interventions and social policy (Anda et al., 2010; Anda et al., 2006; Felitti et al., 1998).

Trauma, by definition, is any extraordinary event (experienced or witnessed) that threatens an individual's physical or psychological well-being and challenges his or her coping skills (American Psychiatric Association, 2000, 2013; Whitfield, 1998). The Adverse Childhood Experiences (ACE) study, a collaborative research project between the U.S. CDC and Kaiser Permanente (a network of health care organizations), produced staggering evidence of the pervasive and enduring nature of early trauma (CDC, 2013b). Beginning in 1997, the ACE study collected data about childhood adversity and its relationship to adult health outcomes from 17,337 participants who sought health services from Kaiser Permanente (Felitti et al., 1998). Notwithstanding an underrepresentation of ethnic minorities and lower socioeconomic classes, the results of this project were remarkable for their revelation of the frequency and negative correlates of child maltreatment and household dysfunction. More than 28% of the participants reported childhood physical abuse, 11% were emotionally abused, and 21% had been sexually abused. Women were more likely to report sexual (25%) and emotional (13%) abuse than men (16% and 8%, respectively), and men were slightly more likely to have been physically abused. Nearly one quarter of the respondents had been physically or emotionally neglected. Household dysfunction was also common; 13% had witnessed domestic violence in the home, 27% experienced parental substance abuse, 19% had a parent who was depressed, mentally ill, or attempted suicide, and 23% came from homes in which the parents were separated or divorced. Nearly 5% reported that a family member had gone to prison (CDC, 2013b).

More than two thirds of the participants reported experiencing at least one adverse event before they turned 18 years (CDC, 2013b). Multiple forms of child maltreatment and household dysfunction were interrelated; the presence of a single ACE factor more than doubled the odds of reporting additional ACEs (Dong, Anda, Dube, Giles, & Felitti, 2003; Dong et al., 2004). As the number of childhood adverse experiences increases, the risk for myriad health, mental health, and behavioral problems in adulthood also grows in a cumulative fashion (Anda et al., 2006; Dube, Anda, Felitti, Edwards, & Williamson, 2002; Felitti, 2002; Felitti et al., 1998). For instance, as ACE scores increase, so does the likelihood of adulthood substance abuse, suicide attempts, depression, smoking, heart and pulmonary diseases, fetal death, obesity, liver disease, intimate partner violence, early initiation of sexual activity, promiscuity, sexually transmitted diseases, and unintended pregnancies (CDC, 2013a; Felitti et al., 1998).

ACE research has clearly and consistently demonstrated the negative impact of early trauma on behavioral, medical, and social well-being in adulthood (Anda et al., 2010; Felitti et al., 1998).

ACEs and Criminal Offenders

A history of child abuse is common among criminal offenders. Prevalence rates can vary depending on how child abuse is defined in an interview or survey, and male prisoners in particular may underreport child abuse due to normalized perceptions of victimizing behavior or fears of appearing vulnerable. Several studies have reported higher rates of physical and sexual abuse in inmates compared with the general population (Courtney & Maschi, 2013; Harlow, 1999; Maschi, Gibson, Zgoba, & Morgen, 2011; Weeks & Widom, 1998). Household dysfunction is also common among inmates and often co-occurs with child maltreatment. Prisoners frequently report witnessing violence in childhood and many experienced the death of a family member, parental separation or abandonment, or parental substance abuse (Courtney & Maschi, 2013; Haugebrook, Zgoba, Maschi, Morgen, & Brown, 2010; Maschi et al., 2011). Harlow (1999) found that approximately 40% of prisoners reported out-of-home foster care placement in childhood and many had an incarcerated family member. Abused prisoners were more likely than nonabused prisoners to be serving a sentence for a homicide, violent offense, or sexual crime (Harlow, 1999).

A study of adverse childhood events among more than 700 California inmates using a scale very similar to the ACE survey revealed that 28% were emotionally or physically neglected and 45% were physically or sexually abused (Messina, Grella, Burdon, & Prendergast, 2007). Household dysfunction was also common, with nearly half reporting domestic violence in their childhood homes, 43% reporting parental separation, 37% having an incarcerated family member, 14% experiencing placement in foster care, and half stating that a parent abused substances. Only 13% of the total sample reported zero adverse events, while approximately 30% reported four or more. There were strong correlations between nearly all categories. Collectively, research findings reviewed demonstrate that childhood adversity is associated with adult criminality, particularly interpersonal violence, and that greater exposure to adverse events significantly increases the likelihood of mental health problems and serious involvement in drugs and crime (Harlow, 1999; Messina et al., 2007).

ACEs and Sexual Offenders

Although it has been commonly hypothesized that most sexual offenders are former victims, studies have varied widely in their findings of the prevalence of early molestation among sexual perpetrators. An early survey found that 63% of incarcerated sex offenders reported being sexually abused as children or being pressured into sexual activity by an adult (Groth, 1979). A subsequent meta-analysis of empirical studies containing a total of 1,717 subjects found that 28% of sex offenders reported a history of childhood sexual abuse (Hanson & Slater, 1988). This figure is substantially greater

than the 16% to 17% rate of sexual victimization of males in the general population (CDC, 2013b; Hunter, 1990). Hindman (1988) offered surprising findings when she polygraphed 129 sex offenders in treatment about their reported sexual histories. The results showed that although 67% of offenders initially reported being sexually abused as children, when polygraphed the number dropped to 29%, suggesting that some men may fabricate or exaggerate early childhood trauma in an attempt to rationalize their behavior or gain sympathy from therapists (Hindman, 1988; Hindman & Peters, 2001). Studies using multiple methodologies have found higher prevalence rates among sexual offenders, and how a researcher asks relevant questions (e.g., the use of emotionally laden terms such as abuse) can influence results (Simons, 2007).

In a study administering the ACE questionnaire to child abusers, domestic violence offenders, sex offenders, and stalkers (n = 151), it was found that these offenders as a group had significantly higher rates of ACEs than men in the general population (Reavis et al., 2013). Only 9.3% of the sample reported no adverse events in childhood, compared with 38% of the male sample in the ACE study. As well, 48% reported four or more adverse experiences, compared with 9% of the men in the ACE study. Sex offenders in particular had significantly higher ACE scores than the general population (Reavis et al., 2013). Weeks and Widom (1998) also found higher rates of maltreatments in male sex offenders, with 26% reporting sexual abuse in childhood, 18% reporting neglect, and two thirds revealing childhood physical abuse.

A meta-analysis of 17 studies compared rates of sexual and other forms of abuse reported in a combined sample of 1,037 sex offenders and 1,762 non–sex offenders (Jespersen et al., 2009). The authors also analyzed the prevalence of different forms of abuse in 15 studies that compared sex offenders who assaulted adults (n = 962) with those with child victims (n = 1,334). Most of the studies revealed that sexual abuse, physical abuse, and neglect were common among sex offenders. Sex offenders were more than 3 times more likely to have been sexually abused than non–sex offenders but not more likely to have been physically abused. Sex offenders against children were more likely to have been sexually abused but those who assaulted adults were more likely to have experienced physical abuse in childhood.

The neurodevelopmental pathway from childhood adversity to adult behavior is an enormously complex biopsychosocial process. Environmental stressors stimulate the overproduction of stress-related hormones associated with fight-or-flight responses, inhibiting the growth and connection of neurons and contributing to lasting effects such as affective dysregulation, deficits in social attachment, and cognitive problems (Anda et al., 2010; Anda et al., 2006; Creeden, 2009). These social, emotional, and cognitive impairments often result in adoption of high-risk behaviors as coping strategies to relieve distress, culminating, for many people, in the development of illnesses, disabilities, psychosocial problems, and premature mortality at rates higher than in the general population (Felitti et al., 1998).

In summary, early childhood maltreatment and family dysfunction are common in the general population. Adverse experiences are associated with poorer health, mental health, and behavioral outcomes, and cumulative trauma dramatically increases the odds of medical and psychosocial problems as well as addictions (Anda et al., 2006;

Dong et al., 2003; Dong et al., 2004; Dube et al., 2005; Felitti et al., 1998). Criminal populations, including sexual offenders, are even more likely than the general population to have a history of early trauma. Reavis et al. (2013) opined that given the prevalence of early maltreatment in the histories of sex offenders, it is perhaps unsurprising that offense-specific models of sex offender treatment have produced mixed results in terms of effectiveness. They suggested that treatment programs should more strongly emphasize the role of early trauma in self-regulation and attachment. It is important to understand the frequency and role of these early experiences in the development of sexual offending and to use that knowledge to inform treatment protocols.

Purpose of the Current Study

The purpose of this study was to explore the prevalence of ACEs in a large sample of male sexual offenders and to compare findings with rates of the same experiences for males in the general population. It was hypothesized that the sex offenders would have higher rates of early adverse experiences than males in the general population. The study also sought to explore differences in ACE scores between different types of sexual offenders and to examine ACE scores in relation to recidivism risk. By enhancing our understanding of the frequency and correlates of child maltreatment and household dysfunction, we can better devise clinical interventions that respond to the needs of sex offender clients.

Method

Participants

A nonrandom sample of participants was surveyed in civil commitment (28%) and outpatient (72%) sex offender treatment programs across the United States. The programs were recruited through a solicitation on the professional listserv of the Association for the Treatment of Sexual Abusers. Therapists who responded to the solicitation agreed to become data collection sites, and they in turn invited their clients to participate in the survey. Most outpatient programs serve clients who have been ordered to attend treatment by the court as part of their probation requirements following a criminal conviction or as part of their Family Court case plan following a finding of sexual abuse in a child protective services investigation. Participating programs included sex offenders from New Jersey, Illinois, Texas, Florida, Georgia, Maryland, Montana, Washington, and Maine. All clients attending treatment at the outpatient or inpatient facilities (n = approximately 970) were invited to participate in the project, and a total of 709 clients voluntarily agreed to participate. Thus, the response rate was approximately 73%.

The sample for the current study consisted of 679 adult male sex offenders. Although females participated in the study, they were excluded from these analyses and those data will be reported elsewhere. Sample demographics are described in Table 1. The majority of participants were White (67%) and most (71%) were between

Table 1. Sample Demographics.

Demographic categories	% (*N* = 679)
Race	
White	67
Minority	32
Age (years)	
18-30	20
31-40	21
41-50	30
51-60	20
Older than 60	9
Marital status	
Never married	47
Married	16
Divorced/separated	34
Widowed	3
Education	
Not high school graduate	18
High school graduate or GED	63
College graduate or higher	19
Income	
Less than $20,000	42
$20,000-$29,999	17
$30,000-$49,999	20
$50,000+	21

Note. GED = general equivalency diploma.

30 and 60 years of age, with 20% younger than age 30 (7% were 18-25) and 9.6% older than age 60. Approximately 62% of the sample had completed high school or general equivalency diploma (GED), and 19.6% identified themselves as college graduates. About 59% earned less than $30,000 per year in the last year they earned income. Nearly half of the sample had never been married, 16% were currently married, and 34% were divorced or separated.

Table 2 describes participant, offense, and victim characteristics. Participants had been arrested for a variety of sexual crimes; two thirds reported that their index offense involved sexual contact with a minor, and 9% reported sexual assault of an adult. About 9% said they had been arrested for a child pornography offense, 7% for Internet solicitation, 3% for exposure of genitals, and less than 1% for voyeurism. Participants were asked a series of questions about victim characteristics, taking into account their index offending, any prior offending, and any undetected offending. Most participants reported that they had offended against female victims, about one third reported that they had victimized strangers, and more than half said they offended against prepubescent children (percentages do not add up to 100% because some endorsed multiple

Table 2. Offender, Offense, and Victim Characteristics.

	Valid *n*	*M*/%
Female victim	681	77%
Male victim	676	28%
Family victim	677	40%
Unrelated victim	677	48%
Stranger victim	681	35%
Victim younger than 12 years	683	52%
Teen victim	675	56%
Adult victim	673	29%
Total sex crime arrests	684	1.58
Total victims	636	20.32[a]
Ever used force	682	23%
Ever used weapon	689	9%
Ever caused injury	687	9%
Total non–sex arrests	685	1.50
Months in Tx	645	50.09
On probation	666	61%
Months on probation	400	45.21
Lifetime months in prison	670	85.25
Lifetime months on probation	637	47.31

Note. Percentages may not add up to 100% because some categories were not mutually exclusive.
[a]The average number of victims was skewed due to a few high-value outliers. Median number of victims = 2 and mode = 1;Tx=Treatment.

categories). It should be noted that although most sex offenses involve perpetrators and victims who are known to each other (Bureau of Justice Statistics, 1997, 2010), 28% of this sample was civilly committed and was more likely to have a stranger victim. When asked whether they had ever had a stranger victim, 62% of the civilly committed offenders endorsed "yes" compared with 25% of the outpatients. Most participants (69%) reported that they had been arrested once for a sex crime, 19% twice, and approximately 12% reported three or more sex crime arrests. Consistent with statutory language used to determine whether a person meets criteria for civil commitment, civilly committed sex offenders had a higher mean number of sex crime arrests (2.3, *SD* = 1.5) than outpatients (1.2, *SD* = .79). The median length of time in treatment was 30 months (mode = 24, *M* = 50, *SD* = 53).

Participants were asked to disclose their total number of victims (including offenses they had not been arrested for), and they reported a median number of two victims (mode = 1, *M* = 20, *SD* = 172). One participant reported more than 3,000 victims and 2 participants reported more than 1,000 victims, whereas 82% reported 10 victims or less and 67% reported 3 or less. Because outliers can skew measures of central tendency, the 5% trimmed mean number of victims was calculated (excluding the 5% highest and lowest values), and was found to be six. It should be noted that noncontact

offenders such as exhibitionists were included in the sample, perhaps accounting for some of the outlying cases. Exhibitionism is known to be highly compulsive and repetitive and some men have engaged in the behavior thousands of times (McGrath, 1991; Morin & Levenson, 2008).

Instrumentation

A survey was developed by the principal investigator for the purpose of collecting data on the prevalence of early trauma. The first section of the survey consisted of the ACE scale (CDC, 2013b), a 10-item dichotomous (yes/no) scale in which participants endorse certain experiences prior to 18 years of age: *abuse* (emotional, physical, and sexual), *neglect* (emotional and physical), and *household dysfunction* (domestic violence, unmarried parents, and the presence of a substance-abusing, mentally ill, or incarcerated member of the household). One's ACE score reflects the total number of adverse experiences endorsed by that individual. The ACE categories were developed using items adapted from earlier studies: the Conflict Tactics Scale (Straus, Gelles, & Smith, 1990), the Child Trauma Questionnaire (Bernstein et al., 1994), and questions from a survey about sexual abuse (Wyatt, 1985).

The second section of the survey asked questions about offense history using forced-choice categorical responses to ensure anonymity. Questions about the nature of the sex offenses committed were asked, such as victim age, gender, and relationship, as well as the number of prior arrests. No information that could potentially identify offenders or victims was sought.

Data Collection

Federal guidelines for human subject protection were followed and the project was approved by an Institutional Review Board. Clients were invited to complete the anonymous survey during regularly scheduled group therapy sessions at participating data collection sites. Clients were instructed not to write their names on the survey, and to place the completed survey in a sealed box with a slot opening. Informed consent was provided in writing and explained verbally, however, to protect anonymity, participants were not required to sign a consent document. Completion of the survey was considered to imply informed consent to participate in the project.

Analyses

Descriptive statistics are reported for each of the survey items. Binomial analyses, *t* tests, and odds ratios (OR) were used to examine differences between groups, and bivariate correlations were used to examine relationships between variables.

Results

Figure 1 depicts the proportion of participants endorsing "yes" to each ACE item. Child maltreatment and household dysfunction were common, with more than half

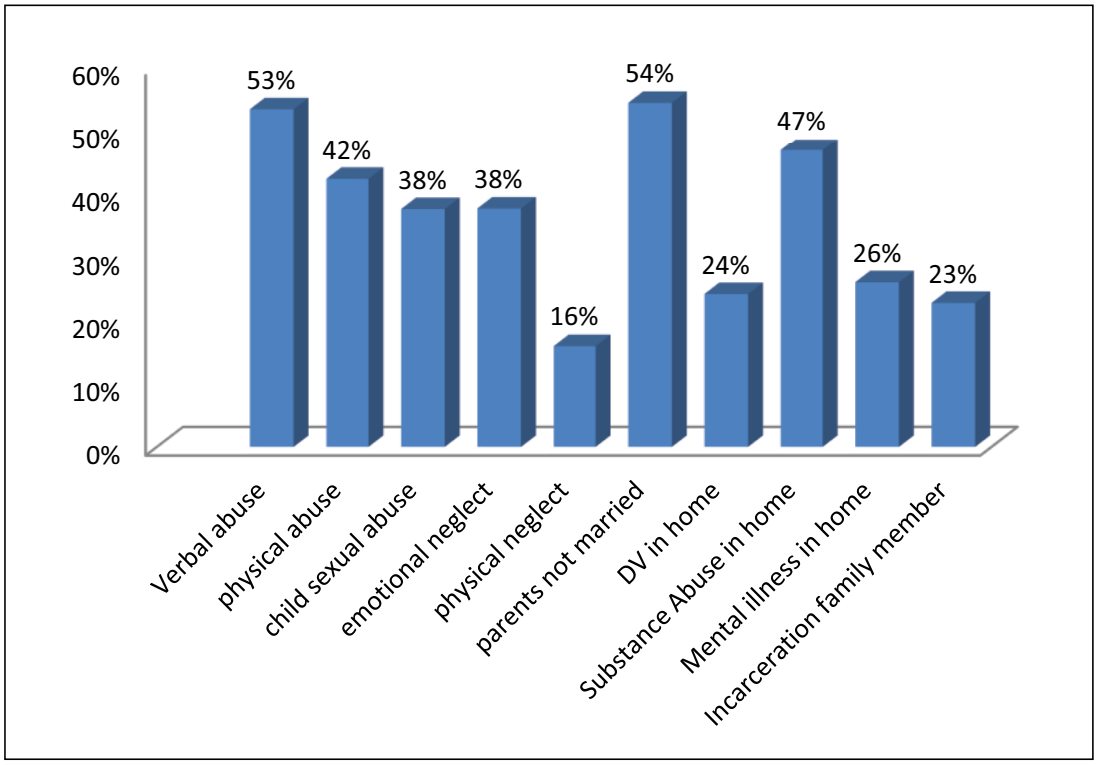

Figure 1. Percentage of male sex offenders endorsing ACE items (N = 679).
Note. ACE = Adverse Childhood Experience; DV = domestic violence.

of the participants endorsing verbal abuse and parental separation or divorce (53% and 54%, respectively), nearly half reporting household substance abuse (47%), and greater than one third of participants endorsing childhood physical abuse (42%), sexual abuse (38%), and emotional neglect (38%). Figure 2 shows the distribution of ACE scores. Slightly less than 16% said that they experienced no ACEs and nearly half endorsed four or more. The mean ACE score was 3.5 (median = 3, SD = 2.74).

Table 3 shows each ACE item exactly how it was presented to participants, as well as the proportion endorsing each item compared with the prevalence in the original CDC male sample. In each category, the sex offenders reported higher prevalence rates than the general male population, and binomial tests revealed that all differences were statistically significant ($p < .001$).

ORs are used to compare the relative odds of the occurrence of an event (e.g., childhood sexual abuse) in one group with the odds of occurrence of the same event in another group (Szumilas, 2010). ORs in the current analysis were calculated as described in the following cogent example:

> . . . If 25 out of 100 sex offenders have a history of sexual abuse, their odds of having a sexual abuse history are 25/75, or 0.33; if 10 of 100 of non-sex offenders have a similar history, their odds are 10/90, or 0.11. The OR for this comparison is thus 0.33/0.11, or 3.0. An odds ratio of 1.0 represents the absence of a group difference whereas an odds ratio

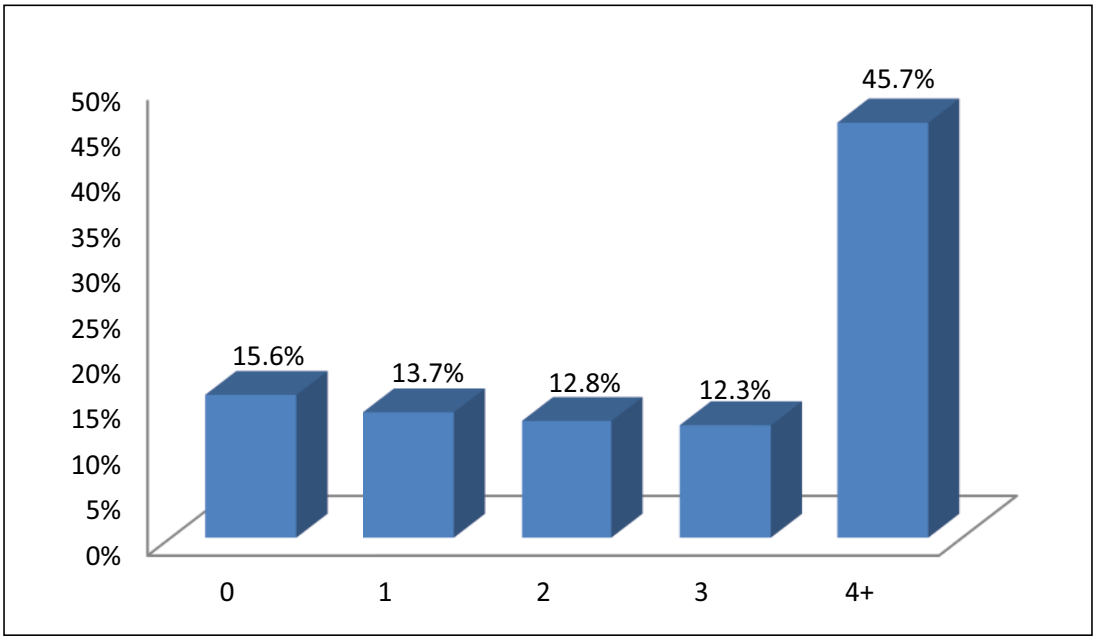

Figure 2. Distribution of ACE scores (N = 679).
Note. ACE = Adverse Childhood Experience.

> greater than 1.0 means a greater prevalence of abuse in the first group; an odds ratio smaller than 1.0 means a lower prevalence of abuse in the first group. (Jespersen et al., 2009, p. 182)

In the current analysis, results revealed that sex offenders were more likely to experience all ACE items compared with males in the general population (see Table 3).

As shown in Table 4, correlations between ACE items were all positive and significant, suggesting that child maltreatment occured in household environments in which a variety of dysfunctions were often present. The correlation between verbal abuse and physical abuse, $r = .67$, corresponded to a large effect size (Cohen, 1988). Correlations demonstrating a medium effect size included domestic violence and physical child abuse, $r = .41$, emotional neglect and verbal abuse, $r = .41$, and emotional neglect and physical abuse, $r = .42$.

Higher ACE scores were significantly correlated with lower educational attainment, $r = -.26$; $p < .01$, lower income, $r = -.25$; $p < .01$, and more arrests for nonsexual offenses, $r = .29$; $p < .01$. ACE scores had no significant correlation with the number of sex crime arrests or the number of total victims. Those with victims younger than 12 years of age had significantly higher mean ACE scores than those with older victims, 4.2 versus 2.9; $t = -6.133$, $p < .001$. Higher mean ACE scores were also found in the groups of sex offenders who said that they had used force or violence in the commission of a sex offense, 4.9 versus 3.2; $t = -7.043$, $p < .001$, used a weapon in a sex crime, 5.3 versus 3.4; $t = -4.863$, $p < .001$, or who injured a victim in a sex crime, 5.4 versus 3.4; $t = -5.435$, $p < .001$. Higher mean ACE scores were found for sex offenders with contact sex offenses versus noncontact sex offenses, 3.4 versus 2.2; $t = 4.069$,

Table 3. ACE Item Comparisons Between Sex Offenders and Males in CDC Sample.

ACE questions: While you were growing up, in your first 18 years of life . . .	Sex offenders (*N* = 679)	Male CDC sample (*n* = 7,970)	Odds ratio
1. Did a parent or other adult in the household often or very often swear at you, insult you, put you down, or humiliate you? Or, act in any way that made you afraid that you might be physically hurt?	53.3%***	7.6%	13.88
2. Did a parent or other adult in the household often or very often push, grab, slap, or throw something at you? Or, ever hit you so hard that you had marks or were injured?	42.2%***	29.9%	1.71
3. Did an adult or person at least 5 years older than you ever touch or fondle you or have you touch his or her body in a sexual way? Or, attempt or actually have oral, anal, or vaginal intercourse with you?	38%***	16%	3.22
4. Did you often or very often feel that no one in your family loved you or thought you were important or special? Or, your family did not look out for each other, feel close to each other, or support each other?	37.6%***	12.4%	4.26
5. Did you often or very often feel that you did not have enough to eat, had to wear dirty clothes, and had no one to protect you? Or, your parents were too drunk or high to take care of you or take you to the doctor if you needed it?	15.9%***	10.7%	1.58
6. Were your parents ever separated or divorced?	54.3%***	21.8%	4.26
7. Was your mother or stepmother often or very often pushed, grabbed, slapped, or had something thrown at her? Or, sometimes often or very often kicked, bitten, hit with a fist, or hit with something hard? Or, ever repeatedly hit at least a few minutes or threatened with a gun or knife?	24%***	11.5%	2.43
8. Did you live with anyone who was a problem drinker or alcoholic or who used street drugs?	46.7%***	23.8%	2.81
9. Was a household member depressed or mentally ill, or did a household member attempt suicide?	25.9%***	14.8%	2.01
10. Did a household member go to prison?	22.6%***	4.1%	6.83

Note. ACE = Adverse Childhood Experience; CDC = Centers for Disease Control and Prevention.
***Frequencies endorsed by the sex offenders were compared with those observed in the CDC male sample using binomial nonparametric tests and all showed significant differences between groups ($p < .001$). SPSS does not produce coefficients for one-sample binomial tests.

$p < .01$. No significant differences were found in ACE scores between those with only adult victims versus those with at least one minor victim, or for those with only extra-familial victims versus those with at least one family victim.

Table 4. Correlations Between ACE Items.

	Verbal abuse	Physical abuse	Child sexual abuse	Emotional neglect	Physical neglect	Parents not married	DV in home	Substance abuse in home	Mental illness in home	Incarceration of family member
Verbal abuse	1	.671**	.370**	.405**	.312**	.219**	.348**	.375**	.277**	.138**
Physical abuse		1	.342**	.417**	.330**	.233**	.412**	.315**	.281**	.162**
Child sexual abuse			1	.300**	.260**	.177**	.229**	.263**	.311**	.092*
Emotional neglect				1	.385**	.210**	.332**	.271**	.298**	.174**
Physical neglect					1	.199**	.317**	.284**	.323**	.234**
Parents not married						1	.321**	.268**	.182**	.196**
DV in home							1	.333**	.221**	.200**
Substance abuse in home								1	.236**	.285**
Mental illness in home									1	.137**
Incarceration family member										1

Note. ACE = Adverse Childhood Experience; DV = domestic violence.
*Correlation is significant at the .05 level, two-tailed. **Correlation is significant at the .01 level, two-tailed.

Finally, a simulated risk score was devised for each offender by tabulating the number of risk factors known to be associated with sexual recidivism and found in the Static-99R, the most well-researched and commonly used risk assessment instrument in North America (Hanson & Morton-Bourgon, 2005; Hanson & Thornton, 1999, 2000; Helmus, Thornton, Hanson, & Babchishin, 2012). Age was coded by the following categories: 18 to 25 = 1, 26 to 40 = 0, > 40 = −1 (due to the way data were collected, categorical breakdowns were similar but did not precisely correspond to those in the Static-99R; Helmus et al., 2012). The remaining risk factors were coded as 1 = *yes* and 0 = *no*: unmarried (never married), nonsexual violence (in our survey the question asked whether force was ever used in the commission of a sex offense), noncontact offense (derived from endorsement of an arrest for child pornography, voyeurism, or exposing genitals), unrelated victim, stranger victim, and male victim. The total number of sex crime arrests and total number of nonsexual arrests were also included in the calculation. Because some participants did not complete all items, missing data reduced the sample size for this variable to 379. The mean risk score was 3.3 and the median was 3 (SD = 2.17, range = −1 to 10; 9% had a score of 6 or above). Higher ACE scores were associated with higher risk scores, r = .20; p < .001.

Discussion

These findings revealed that the prevalence of early trauma is significantly higher for sex offenders than for males in the general population. As well, multiple maltreatments

often co-occurred with other forms of family dysfunction, suggesting that many sex offenders were raised within a disordered social environment by caretakers with problems of their own who were ill-equipped to adequately protect children from emotional, physical, and sexual harm. For instance, only 16% of the sex offenders reported zero adverse experiences, compared with more than one third of males in the general population. The results are similar to other studies, which found that almost half of sex offenders had an ACE score of four or more (Reavis et al., 2013) and that sex offenders had three times the odds of being sexually abused compared with non–sex offenders (Jespersen et al., 2009).

Noteworthy is that 38% of these sex offenders reported childhood sexual abuse. Past research has determined that individuals experiencing CSA are twice as likely to have endured other forms of maltreatment or family dysfunction (Dong et al., 2003), again suggesting that sexual abuse rarely occurs in isolation and overlaps with other negative childhood experiences. Severe molestation, more frequent occurrences, younger age at abuse, and multiple perpetrators have all been associated with higher ACE scores (Dong et al., 2003). CSA perpetrated by a caregiver or someone close to the child can lead to significantly higher levels of depression, anxiety, and suicidality, signifying that a greater level of betrayal results in poorer adult functioning (Edwards, Freyd, Dube, Anda, & Felitti, 2012). Interestingly, research indicates that men identify women as the abusers 40% of the time (6% of females reported abuse by women) and the risk for negative outcomes seems to be similar regardless of the gender of the perpetrator (Dube et al., 2005). Thus, the dynamics of early sexual abuse in the lives of offenders is important to explore and address in treatment.

Higher ACE scores were significantly correlated with young victims, contact victims, more nonsexual arrests, and measures of violence and aggression, suggesting that indicators of both sexual deviance and antisociality were associated with early adverse experiences. The ACE literature is therefore relevant to clinicians treating sexually abusive individuals and can inform our understanding of the development of schemas, attitudes, and beliefs that influence risk for sexually aggressive behavior.

ACEs contribute to social, emotional, and cognitive impairment, inciting the adoption of high-risk behaviors as coping strategies (Felitti et al., 1998). Exposure to persistent harsh conditions as a child can produce anxiety, anger, and depression along with a profound sense of helplessness (Felitti, 2002; Whitfield, 1998). Chronic trauma lays the groundwork for a range of interpersonal problems and maladaptive coping skills stemming from long-standing relational deficits and distorted cognitive schemas about oneself and others (Elliott, Bjelajac, Fallot, Markoff, & Reed, 2005; Harris & Fallot, 2001; Teyber & McClure, 2011). Furthermore, neurobiological responses to trauma can make adapting to new and nonabusive environments even more challenging (Creeden, 2009; Ford, Fraleigh, Albert, & Connor, 2010; Van der Kolk, 2006). When a child's world seems like a dangerous place with few protective or nurturing caregivers, the ability to trust becomes impaired and expectations of others are laced with wariness and skepticism. At the same time, self-doubt and a lack of confidence in one's own instincts can lead to poor life choices and associations with unscrupulous peers or abusive partners.

An adverse family environment is a fertile breeding ground for sexual offending. Abuse, neglect, and family dysfunction often lead to mistrust, hostility, and insecure attachment, which then contribute to social rejection, loneliness, negative peer associations, and delinquent behavior (Hanson & Morton-Bourgon, 2005). A most eloquent explanation bears repeating:

> The form of sexuality that develops in the context of pervasive intimacy deficits is likely to be impersonal and selfish, and may even be adversarial . . . Attitudes allowing nonconsenting sex can develop through the individual's effort to understand their own experiences and adopting the attitudes of their significant others (friends, family, abusers). (Hanson & Morton-Bourgon, 2005, pp. 1154-1155)

Our findings show a link between ACE scores and risk factors for recidivism, suggesting that the role of early adversity in the development of sexual aggression is a relevant consideration in treatment. This knowledge can be used to help refine interventions, including enhancement of responsivity, by which counselors match their interventions to the needs, learning style, and motivation of a specific offender (Andrews & Bonta, 2010; Hanson, Bourgon, Helmus, & Hodgson, 2009).

Implications for Practice With Sex Offenders

Trauma-informed care (TIC) recognizes the role of adverse events in the development of high-risk behavior and honors the subjective interpretation of trauma as a central component of the healing process. Historically, sex offender treatment programs have emphasized relapse prevention (RP) models focusing on triggers, high-risk situations, and distorted thinking in a cycle of abusive behavior (Laws, 1989; Laws, Hudson, & Ward, 2000). Increasingly, however, importance is being placed on individualized treatment planning that adapts interventions to match the client's needs, risk factors, motivation level, and personal capacity to embrace and engage in treatment (Andrews & Bonta, 2007, 2010). Also gaining currency is the Good Lives Model (GLM; Ward & Brown, 2004; Ward, Yates, & Willis, 2012; Willis, Ward, & Levenson, 2013; Willis, Yates, Gannon, & Ward, 2013; Yates, Prescott, & Ward, 2010), which emphasizes the importance of helping clients attain self-actualization goals while improving affective and behavioral self-regulation. The present findings suggest that before sexual offenders can build a better future, they may need to first transcend their past.

TIC differs from trauma resolution therapy; rather than focusing on the particulars of traumatic experiences, it simply delivers clinical services in a way that recognizes the impact of early trauma on behavior across the life span (Bloom & Farragher, 2013; Harris & Fallot, 2001). TIC offers a safe and client-centered environment in which service providers understand and respond to maladaptive behavior in the context of traumatic experiences. TIC is not something that is done at a designated point in treatment, but should be well-integrated into common program models or theories of practice, including RP, cognitive-behavioral therapy (CBT), GLM, and Risk-Needs-Responsivity modalities. TIC helps clients to develop the

self-observation skills necessary to build self-regulatory capacity (Levenson, 2014; Prescott & Wilson, 2013).

Above all, TIC requires clinicians to ensure that abusive dynamics are not inadvertently repeated in the therapeutic relationship (Levenson, 2014). Sex offender treatment programs have historically utilized confrontational approaches. Paradoxically, however, such methods may serve to recreate early disempowering experiences in the clinical setting and reinforce dysfunctional coping strategies that were once adaptive in a traumatogenic environment. Indeed, given the neurobiological evidence that traumatized people focus more of their awareness outward toward possible threats rather than inward toward their own experience (Van der Kolk, 2006), it is remarkable that sexual offenders have benefited from traditional treatments as much as they have. When therapists establish a nonthreatening sex offender treatment environment that emphasizes personal choice and responsibility, they can facilitate trust, emotional safety, and intimacy. Clinicians responding to traumatized clients with compassion, validation, and respect will foster a corrective emotional experience by which new skills can be learned, enhanced, practiced, and reinforced (Levenson, 2014). By incorporating knowledge about trauma into our practices, therapists can model respectful interaction and encourage self-determination. Furthermore, new positive experiences allow not only for the healing of the soul and more effective ways of living but also might assist the brain to discover neural pathways to new behaviors (Creeden, 2009; Wallace, Conner, & Dass-Brailsford, 2011; Whitfield, 1998).

Clinical practice with sex offenders should implement relationally informed treatment along with cognitive-behavioral components (Singer, 2013). Rather than focusing on "triggers" and "cues" of a "cycle," most offending patterns may be better viewed as behavioral and emotional deficits in the capacity to modulate interactions with others and to employ a flexible and varied repertoire of coping strategies (Singer, 2013). Sexualized coping may be, for many sex offenders, a maladaptive attempt to ameliorate emotional distress or seek intimacy. TIC facilitates the building of healthy relational skills renounced in favor of interpersonal survival in the face of childhood maltreatment, providing an innovative framework for change with sex offenders within a larger model of CBT (Levenson, 2014).

Limitations and Directions for Future Research

Questions about the reliability of self-reported data are intrinsic in any survey study, but sex offenders in particular may engage in impression management. Although the survey used in this study was administered anonymously, it is possible that some subjects slanted their responses in socially desirable (or undesirable) directions and in doing so biased the findings. Because some sex offenders may hesitate to reveal certain information about crimes and victims due to fears of self-incrimination, we made attempts to ensure anonymity through categorical responses. The potential limitation of this strategy is that some variables may be less precisely measured and therefore may not always translate into the very best option for statistical analysis. The sample size was moderate, though much larger than similar studies (Reavis et al., 2013), and the findings are in line

with results from related research (Jespersen et al., 2009; Messina et al., 2007; Reavis et al., 2013). Finally, the current study and the original ACE study used cross-sectional data collected more than a decade apart. It is possible that changes have occurred in the overall population base rates of childhood adversity.

Limitations notwithstanding, these data provide important information about sex offenders' history of childhood adversity and household dysfunction and allow for direct comparisons to males in the general population. There is a need for further study of the relationship between ACEs and adult health, mental health, and behavioral outcomes for sex offenders. As well, the role of TIC in improving the effectiveness of sex offender treatment should be a priority for future research.

Summary and Conclusion

A history of trauma can pave the way for problems with attachment, self-regulation, and relational competence across the life span. The deviant secrets of many sex offenders further compromise their opportunities for emotionally intimate relationships and acceptance from others (Seidman, Marshall, Hudson, & Robertson, 1994) and, for some sex offenders, the therapeutic relationship is the most intimate encounter they have ever had. Because deficits in intimacy and self-regulation have been correlated with sex offense recidivism (Hanson & Harris, 2001; Hanson & Morton-Bourgon, 2005), interpersonal patterns are important treatment targets. A trauma-informed therapy setting can model safe and healthy intimacy while mitigating the loneliness and alienation often felt by sex offenders (Levenson, 2014). When offenders engage in the therapeutic process and experience an honest connection with others who validate their experience, opportunities exist for developing and practicing intimacy skills relevant to reducing recidivism risk.

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