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Pedophilic sexual interests and psychopathy in child sexual abusers working with children[☆]

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ABSTRACT

Research has identified stable and dynamic characteristics in child sexual abusers working with children (CSA-W) that may distinguish them from other child sexual abusers (CSA). However, in previous research CSA-W have usually been included in the group of extra-familial CSA (CSA-E). Two hundred and forty-eight forensic-sexological reports about CSA conducted by the Federal Evaluation Centre for Violent and Sexual Offenders in the Austrian Prison System were evaluated retrospectively. One hundred and nineteen intra-familial CSA (CSA-I), 66 CSA-E, and 38 CSA-W were compared with regard to static risk factors, indicators of psychopathy, and pedophilic sexual interests. CSA-E had the highest risk of recidivism as measured by the Static-99 total score, followed by CSA-W. Furthermore, CSA-E had more previous convictions than CSA-W. Both CSA-E and CSA-I had higher total scores on the Psychopathy Checklist-Revised than CSA-W. CSA-W had the highest prevalence of pedophilia diagnoses according to DSM-IV-TR criteria, as well as the highest rate of pedophilia with an orientation toward male children, and the highest frequency of male victims. CSA-W also had the highest total scores in the Screening Scale for Pedophilic Interests. CSA-W seem to constitute a group with particular risk factors and criminogenic needs, that is, they show more indicators of pedophilic sexual interests but less general antisociality and psychopathy, and would thus seem to be distinguishable from other CSA. Future research should focus in particular on evaluating differences in the grooming strategies used by CSA-W to commit and disclose child sexual abuse, as well as on the resources of this particular offender group.

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Researchers have suggested that most cases of abuse occurring in an institution or organization entrusted with the supervision and care of children remain undetected (Finkelhor, 1979; Firestone, Moulden, & Wexler, 2009). Nevertheless, research about child sexual abuse within an institutional setting seems to be scarce and current research attempts have focused primarily on case reports (Colton, Roberts, & Vanstone, 2010; Moulden, Firestone, & Wexler, 2007; Sullivan & Beech, 2002). It has been suggested that child sexual abusers (CSA) constitute a heterogeneous group with regard to various

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psychological and criminological characteristics (Bogaerts, Declercq, Vanheulen, & Palmans, 2005; Fisher & Mair, 1998; Levin & Stava, 1987; Magalhaes et al., 2009). However, in most previous studies child sexual abusers working with children (CSA-W) have usually been included in the group of extra-familial child sexual abusers (CSA-E) and have not been studied separately. Nevertheless, a variety of stable and dynamic characteristics have been identified that differentiate CSA-W from CSA-E and intra-familial CSA (CSA-I). It is above all the hierarchical relationship between a CSA-W and his victim(s), which is established and secured by the institution in which the offender and the victim are engaged, that distinguishes CSA-W from other CSA (Margolin & Craft, 1989; Moulden, Firestone, Kingston, & Wexler, 2010; Nhunda & Shumba, 2001; Sullivan & Beech, 2004).

In this context, Sullivan and Beech (2004) compared demographic, psychiatric, and offense-specific characteristics of 41 CSA-W with those of 142 CSA-E and 78 CSA-I. Similar to previous research findings (cf. Haywood, Kravitz, Grossman, Wasyliw, & Hardy, 1996; Langevin, Curnoe, & Bain, 2000; Plante, Manuel, & Bryant, 1996), they reported that CSA-W had a significantly higher IQ, were more highly educated, and significantly older than CSA-E and CSA-I. CSA-W had also abused more children throughout their lifespan, their victims were more often male, and the victims were older at the time the abuse started (Sullivan & Beech, 2004; Sullivan, Beech, Craig, & Gannon, 2011). In this context, previous research indicated that having a large number of child victims as well as primarily male victims is highly correlated with pedophilic sexual interests (Freund & Blanchard, 1989; Seto & Lalumière, 2001; Seto, Lalumière, & Kuban, 1999). Moreover, it was found that CSA-W show a higher level of emotional over-identification with children and were more likely to have victim-blaming attitudes compared to CSA-I and CSA-E (Sullivan et al., 2011). However, it remains unclear whether the decision to take on a job or to participate in a spare time activity that includes direct contact to children is motivated by a higher emotional congruency with children or by the wish to facilitate access to children (Colton & Vanstone, 1996; Mack & Yundina, 2012; Moulden et al., 2007). Several researchers have described a high emotional congruency with children and the children's world as an important etiological factor in explaining the emergence of child sexual abuse (Finkelhor, 1984; Ward & Beech, 2006) and postulated a relationship with high levels of pedophilic sexual interests (Fisher, Beech, & Browne, 1999).

On the other hand, CSA-W were found to have fewer previous convictions for a sexual or violent offense compared to CSA-I and CSA-E (Haywood et al., 1996; Loftus & Camargo, 1993; Sullivan & Beech, 2004; Sullivan et al., 2011). Previous research has linked criminal history and in particular a high number as well as a high diversity of previous offenses to a strong antisocial orientation and a high level of psychopathy in sexual offenders (Caspi et al., 1994; Goffredson & Hirschi, 1990; Rettenberger, Boer, & Eher, 2011). This finding would indicate that CSA-W may show less antisocial tendencies or fewer indicators for psychopathic traits when compared to CSA-I and CSA-E. In support of this suggestion, one previous study found a lower prevalence of antisocial personality disorder in clergy CSA compared to other CSA. However, no differences were found between the groups with regard to alcohol or drug abuse problems (Langevin et al., 2000).

Despite these important differences between CSA-W and other CSA subgroups, they also seem to share some characteristics. Within this context, CSA-W have exhibited similar grooming strategies to CSA-I; for example, they have used less violence, threats, and coercive strategies during the offense and have more often used emotional manipulation or their authority to keep their victims from disclosing the abuse (Leclerc, Proulx, & McKibben, 2005; Moulden et al., 2007; Nhunda & Shumba, 2001). On the other hand, it was shown that CSA-W and CSA-E demonstrated a comparable level of deviant sexual interests and sexual preoccupation (Sullivan et al., 2011).

Because deviant sexual interests and an antisocial orientation or a high level of psychopathy have been identified as the most important predictors for sexual recidivism in sexual offenders (Hanson & Bussière, 1998; Hanson & Morton-Bourgon, 2005; Quinsey, Lalumière, Rice, & Harris, 1995), it can be hypothesized that the existence of high levels of pedophilic sexual interests on the one hand and the absence of antisocial personality traits on the other might predispose CSA-W to be a special group within the CSA population. In light of these considerations, a precise characterization of CSA-W would appear important in order to identify as early as possible those individuals at risk of offending and thereby provide help as well as possibly prevent cases of abuse (Sullivan & Beech, 2002, 2004). Furthermore, a better understanding of CSA-W and their strategies would also help to provide effective treatment methods by focusing treatment more accurately on the specific needs and strengths of this particular CSA subgroup (Kaufman, Hilliker, Lathrop, Daleiden, & Rudy, 1996). The present study aims to evaluate to what extent CSA-W differ from CSA-I and CSA-E with respect to static risk factors, indicators of pedophilic sexual interests, and indicators of psychopathy.

Method

Data collection

In Austria, convicted sex offenders are evaluated by the Federal Evaluation Centre for Violent and Sexual Offenders (FECVSO; Eher, Matthes, Schilling, Haubner-Maclean, & Rettenberger, 2012) for planning purposes relating to the correctional scheme (Rettenberger, Matthes, Boer, & Eher, 2010). All the information gained in the initial diagnostic process at the FECVSO is subsequently summarized in forensic-sexological reports. The reports, therefore, include information about previous employment and the social environment of the offenders. They also contain information about previous offenses and the index offense, personality factors, biographical and sexual development, risk assessment, and psychiatric and sexual disorders. Finally, the reports include information about the most effective psychotherapeutic or pharmacological approaches toward reducing the risk level of the individual evaluated. For the purposes of the present study, information about the study

participants was obtained retrospectively using the forensic-sexological reports. All reports were evaluated by two of the authors (D.T. and L.L.) and the raters' results were compared after the evaluation process. In the case of results differing, the raters reached a consensus after reviewing the relevant sections within the reports again.

Procedures

Assessment of recidivism risk using the Static-99. The Static-99 (Hanson & Thornton, 1999, 2000) is an actuarial assessment instrument that measures the recidivism risk in male sex offenders by considering static variables only. The Static-99 consists of 10 items that assess demographic information, information about previous offenses, and information about the relationship between the offender and the victim(s). The highest total score is 12 points. The total scores can be translated into risk categories ranging from a low to a high risk of recidivism (0–1 points = *low risk*, 2–3 points = *low to medium risk*, 4–5 points = *medium to high risk*, 6 and more points = *high risk*). Previous studies have found a moderate to good relationship between the Static-99 and sexual recidivism (Hanson & Morton-Bourgon, 2009). Implications for future therapeutic approaches and supervision strategies can be derived based on a sex offender's individual level of risk (Hanson, Bourgon, Helmus, & Hodgson, 2009). In the present study, the German adaptation of the Static-99 was used (Eher, Schilling, Haubner-MacLean, Jahn, & Rettenberger, 2012c; Rettenberger et al., 2010).

The Static-99 was a part of the initial diagnostic process at the FECVSO and was thus rated prospectively. The total scores were retrieved from the forensic-sexological reports for use in the present study. The inter-rater reliability of the Static-99 for the whole sample has already been reported elsewhere (Rettenberger & Eher, 2006; Rettenberger et al., 2010) and can be classified as excellent (Intraclass Correlation Coefficient [ICC] = .98; single measure) using the critical ICC values reported by Fleiss (1986; ICC $\geq .75$ = excellent; $.60 \leq \text{ICC} < .75$ = good; $.40 \leq \text{ICC} < .60$ = moderate; ICC $< .40$ = poor).

Evaluation of psychopathy. Previous research has linked impulsive behaviors as violations under the influence of alcohol or drugs and an extensive history of violations to a high level of psychopathy and a strong antisocial orientation (Caspi et al., 1994; Goffredson & Hirschi, 1990). In the present study, data about previous convictions and the duration of previous imprisonments were used as indicators for the existence of psychopathic personality traits. Furthermore, data about previous problems with drinking alcohol or taking illegal drugs – including loss of driver's license, delinquency under the influence of alcohol or drugs, or previous in-patient alcohol or drug withdrawal treatment – were evaluated using the forensic sexological reports. The prevalence of an antisocial personality disorder diagnosis among the three groups was examined as well. All psychiatric diagnoses were made during the initial diagnostic procedure at the FECVSO by a forensic psychiatrist or psychologist on the basis of the DSM-IV-TR (American Psychiatric Association, 2000) criteria and were subsequently included in the reports.

Furthermore, the total scores for the Psychopathy Checklist-Revised (PCL-R; Hare, 2003) and the scores for factor 1 and factor 2 were compared between the three groups. The PCL-R is a 20-item rating scale consisting of two factors and assessing the extent to which a given individual matches the prototypical psychopath profile. So far, various studies have found a positive relationship between the PCL-R total scores and sexual recidivism (Eher, Rettenberger, Hirtenlehner, & Schilling, 2012; Firestone et al., 1999; Hildebrand, de Ruiter, & de Vogel, 2004; Quinsey, Rice, & Harris, 1995). Factor 1 of the PCL-R measures affective features of psychopathy and is positively correlated to narcissistic and histrionic personality traits, machiavellianism, and an unusual processing of emotional information. Factor 2 reflects impulsive and antisocial tendencies and is associated with criminal and antisocial behaviors and substance abuse problems (Benning, Patrick, Hicks, Blonigen, & Krueger, 2003; Hare, 2003). The PCL-R was also part of the initial diagnostic process, and the PCL-R scores were retrieved from the reports. The inter-rater reliability of the PCL-R for the whole sample has already been reported elsewhere (Rettenberger et al., 2010) and can be classified as excellent (ICC = .93; single measure) using the critical ICC values reported by Fleiss (1986).

Evaluation of indicators of pedophilic sexual interests. Previous studies have shown that a sexual preference for children is linked to having a large number of victims, having especially young victims, and having primarily male victims (Freund & Blanchard, 1989; Freund & Watson, 1991; Hanson & Bussière, 1998; Seto et al., 1999). The present study therefore examined whether CSA-W differ from CSA-E and CSA-I with respect to these features. The prevalence of a pedophilia diagnosis and the type of pedophilia diagnosed (pedophilia oriented toward male, female, or children of both genders or an exclusive type of pedophilic orientation) were compared between the three groups. A forensic psychiatrist or psychologist at the FECVSO had made all the diagnoses based on the DSM-IV-TR criteria (American Psychiatric Association, 2000), and these diagnoses could thus be retrieved from the reports. During the initial diagnostic process, all the offenders were also asked about their sexual preferences. Finally, the Screening Scale for Pedophilic Interests (SSPI; Seto & Lalumière, 2001) was rated retrospectively, since it was not part of the FECVSO reports. The SSPI is a brief instrument consisting of four dichotomous items, measuring the extent of sexual attraction to (pre-)pubescent children by only considering the characteristics of the victims. Previous studies have shown that the SSPI correlates significantly with a preference for (pre-)pubescent children in adolescent and adult CSA, measured using penile plethysmography and is able to predict sexual as well as violent recidivism (Seto & Lalumière, 2001; Seto, Harris, Rice, & Barbaree, 2004; Seto, Murphy, Page, & Ennis, 2003).

Table 1

Professions and voluntary activities of child sexual abusers working with children.

Occupation	<i>n</i>	(%)
<i>Profession</i>		
Teacher or other school employees	10	(26.3)
Priests or other employees of the church	7	(18.4)
Supervisor in children's home	4	(10.5)
Supervisor in day-care center	1	(2.6)
<i>Voluntary activity</i>		
Voluntary caretaker in a youth organization	9	(23.7)
Coach in a youth sports club	6	(15.8)
Voluntary caretaker in school excursions	6	(15.8)
Foster-parents in a registered children's foster care organization	2	(5.3)

Participants

The FECVSO reports of 248 men convicted for having sexually abused a child were initially included in the study. Thirteen (5.2%) CSA had abused children outside and within the family and 12 (4.8%) CSA were convicted for hands-off offenses only (mostly child pornography abuse or exhibitionism). These two groups were excluded from further analyses. Our final sample thus consisted of 223 CSA. Of these, 66 (29.6%) had abused children exclusively outside of the family (CSA-E), 119 (53.4%) had abused children exclusively within their families (CSA-I), and 38 (17.0%) CSA had abused children with whom they had contact during their work or leisure time activities (CSA-W). In order to be included in the CSA-W group, the CSA had to be entrusted with the supervision of children within an institution or organization that is involved with the care of children irrespective of whether this function was carried out as a profession or during leisure time on a voluntary basis. Further, all CSA-W had established contact with their victim(s) through the institution or organization in which they were engaged. Table 1 provides an overview of the child-related professions or spare time activities of the CSA-W. Since some CSA-W had multiple activities which provided them with contact to children, the total number exceeds the total sample size of the CSA-W population.

Statistical analysis

Categorical variables were compared using chi-square (χ^2)-tests. Differences in metric variables were examined using univariate analyses of variance (ANOVAs). Post hoc between-group differences were analyzed using Scheffé tests. Data evaluation was conducted using the Statistical Package for the Social Sciences (IBM SPSS Statistics 20.0 for Macintosh, SPSS Inc., Chicago, IL, USA).

Results

Offender characteristics

No differences in the offenders' ages at the time of the index offense were found between the groups, $F(2, 221) = 2.25$, $p = .108$, but a significant difference occurred in their age at the time of conviction, $F(2, 221) = 3.68$, $p = .027$. CSA-W were older compared to CSA-E, however the age difference between CSA-W and CSA-I narrowly failed to demonstrate statistical significance ($p = .067$). CSA-E and CSA-I did not differ with regard to their age at the time of conviction (see Table 2). However, the groups did differ concerning the amount of time spent in prison for their index offense, $F(2, 221) = 4.16$, $p = .017$, with the CSA-I having been given longer prison sentences than the CSA-E group. CSA-W and CSA-E did not show any significant difference, although CSA-W tended to be given longer sentences than CSA-E (see Table 2). The three groups differed from each other with regard to the number of years of education, $\chi^2(4, 219) = 19.44$, $p = .001$. CSA-W had more education than the other two groups having more often at least 12 years of education, $\chi^2(2, 221) = 17.861$, $p < .001$.

Assessment of recidivism risk using the Static-99

The Static-99 score was not available for 13 participants (5.8%) and thus the sample size was reduced to 210 CSA which consisted of 114 CSA-I (95.8%), 59 CSA-E (89.4%), and 37 CSA-W (97.4%). A comparison of the mean Static-99 total scores showed that the three groups differed from each other significantly with regard to their sexual recidivism risk, $F(2, 208) = 31.62$, $p < .001$. CSA-W and CSA-E had higher total scores compared to CSA-I, while CSA-E tended to have the highest total scores (Table 3). On translating the Static-99 total scores into risk categories, 30 CSA-E (50.8%), 11 CSA-W (29.7%) and 13 CSA-I (11.4%) could be classified as *moderate to high* or *high risk* while the remaining offenders of each group could be classified as *low* or *low to moderate risk*.

Table 2

Sample characteristics.

Variables	CSA-W (n = 38)		CSA-E (n = 66)		CSA-I (n = 119)		F	p
	M	(SD)	M	(SD)	M	(SD)		
Mean age at index offense (years)	39.61	(12.92)	38.39	(13.78)	35.55	(10.35)	2.246	.108
Mean age at conviction (years) ^a	47.04	(13.95)	40.48	(13.73)	41.66	(10.90)	3.678	.027
Mean imprisonment time for index offense (month) [§]	37.29	(23.18)	29.47	(18.32)	38.23	(20.23)	4.164	.017
Variables	CSA-W (n = 38)		CSA-E (n = 66)		CSA-I (n = 119)		χ^2	p
	n	(%)	n	(%)	n	(%)		
Years of education							19.439	.001
<8 years	8	(21.1)	17	(25.8)	28	(23.5)	.303	.860
8–12 years	7	(18.4)	34	(51.5)	58	(48.7)	12.650	.002
>12 years	23	(60.5)	15	(22.7)	33	(27.7)	17.861	<.001
Relationship status							2.388	.303
In a relationship	17	(44.7)	25	(37.8)	56	(47.1)		
Not in a relationship	21	(55.3)	41	(62.1)	63	(52.9)		

Note: CSA-W = child sexual abusers working with children; CSA-E = extra-familial child sexual abusers; CSA-I = intra-familial child sexual abusers.

^a CSA-W vs. CSA-E group difference statistically significant ($p < .05$).

[§] CSA-E vs. CSA-I group difference statistically significant ($p < .05$).

Evaluation of antisociality and psychopathy

Previous delinquency and violations. The total number of previous convictions, the number of previous violent convictions, and the number of previous sexual convictions were compared, showing that CSA-E, had, on average, committed the most overall, $F(2, 221) = 8.57$, $p < .001$, and the most sexual offenses, $F(2, 221) = 12.93$, $p < .001$, prior to the index offense (Table 3). Similar results were found concerning the total duration of previous periods of imprisonment, with CSA-E having the longest average imprisonment time, $F(2, 221) = 4.67$, $p = .01$, while CSA-W tended to have spent the least amount of time in prison, although they did not differ significantly from CSA-I.

Psychopathy and antisocial personality disorder. PCL-R scores were not available for 23 CSA (10.3%), and thus the groups were reduced to 36 CSA-W (94.7%), 56 CSA-E (84.8%), and 108 CSA-I (90.8%). On average, CSA-E (see Table 3) had a higher PCL-R score as compared to CSA-W, and CSA-I did not differ significantly from either CSA-E or CSA-W, $F(2, 198) = 4.49$, $p = .012$. Furthermore, CSA-E also had higher factor two scores than CSA-I and CSA-W, and CSA-I also had higher scores than CSA-W,

Table 3

Static risk assessment and indicators of psychopathy.

Variables	CSA-W (n = 38)		CSA-E (n = 66)		CSA-I (n = 119)		F	p
	M	(SD)	M	(SD)	M	(SD)		
Static-99 total score ^{a,λ,λ,§§}	3.19	(2.07)	4.10	(2.39)	1.67	(1.68)	31.618	<.001
Number of previous offenses ^{*,§}	0.71	(1.78)	5.0	(6.90)	2.56	(5.06)	8.574	<.001
Number of previous violent offenses	0.05	(0.23)	0.92	(2.10)	1.11	(2.68)	3.001	.052
Number of previous sexual offenses ^{*,§§}	0.39	(1.05)	1.11	(2.19)	0.10	(0.35)	12.928	<.001
Time of all previous imprisonments (month) ^{*,§}	4.69	(14.41)	29.18	(75.58)	9.40	(26.32)	4.666	.01
PCL-R Factor 1 ^λ	8.39	(3.54)	8.19	(3.36)	8.30	(3.76)	.036	.965
PCL-R Factor 2 ^{a,*,§§,λ}	5.11	(3.83)	9.84	(5.39)	7.35	(4.70)	11.581	<.001
PCL-R total score ^{a,*,§}	15.22	(6.42)	19.82	(7.76)	17.20	(7.57)	4.494	.012
Variables	CSA-W (n = 38)		CSA-E (n = 66)		CSA-I (n = 119)		χ^2	p
	n	(%)	n	(%)	n	(%)		
Past problems with alcohol	13	(34.2)	40	(60.6)	65	(54.6)	7.187	.027
Past problems with illegal drugs	2	(5.3)	14	(21.2)	13	(10.9)	6.063	.048
Past problems with alcohol or illegal drugs	13	(34.2)	41	(62.1)	67	(56.3)	8.215	.016
Diagnosis antisocial personality disorder (DSM-IV)	1	(2.6)	25	(37.9)	30	(25.2)	15.933	<.001

Note: CSA-W = child sexual abusers working with children; CSA-E = extra-familial child sexual abusers; CSA-I = intra-familial child sexual abusers.

^a Reduced sample size due to missing data.

^{*} CSA-W vs. CSA-E group difference statistically significant ($p < .05$).

^{**} CSA-W vs. CSA-E group difference statistically significant ($p < .01$).

^λ CSA-W vs. CSA-I group difference statistically significant ($p < .05$).

^{λλ} CSA-W vs. CSA-I group difference statistically significant ($p < .01$).

[§] CSA-E vs. CSA-I group difference statistically significant ($p < .05$).

^{§§} CSA-E vs. CSA-I group difference statistically significant ($p < .01$).

Table 4

Indicators of pedophilic sexual interests.

Variables	CSA-W (n = 38)		CSA-E (n = 66)		CSA-I (n = 119)		F	p
	M	(SD)	M	(SD)	M	(SD)		
Number of victims (index offense) ^{***,λλ}	4.61	(4.42)	2.30	(4.09)	1.45	(0.81)	16.854	<.001
Number of victims (all sexual offenses) ^{*,λλ,§§}	5.87	(4.87)	3.52	(5.78)	1.66	(1.16)	18.842	<.001
Age of all victims (years)	10.35	(2.44)	9.86	(3.16)	9.16	(2.97)	2.739	.067
Age of youngest victim (years)	8.76	(2.87)	9.14	(3.36)	8.68	(3.25)	.431	.651
SSPI score ^{λλ,§§}	3.63	(1.42)	3.09	(1.58)	1.66	(1.23)	40.713	<.001
Variables	CSA-W (n = 38)		CSA-E (n = 66)		CSA-I (n = 119)		χ^2	p
	n	(%)	n	(%)	n	(%)		
Victim gender							26.558	<.001
Female	17	(44.7)	35	(53.0)	96	(80.7)	24.575	<.001
Male	16	(42.1)	19	(28.8)	15	(12.6)	16.735	<.001
Female + male	5	(13.2)	12	(18.2)	8	(6.7)	5.962	.051
Self-reported pedophilic sexual interests ^a	6	(18.8)	8	(13.8)	2	(2.4)	9.059	.011
Clinical diagnosis of pedophilia (DSM-IV)	24	(63.2)	27	(40.9)	52	(43.7)	4.192	.123
Type of pedophilia							52.463	<.001
Oriented on female children	6	(15.8)	3	(4.5)	41	(34.5)	22.990	<.001
Oriented on male children	15	(39.5)	14	(21.2)	4	(3.4)	32.850	<.001
Gender unspecified	3	(7.9)	10	(15.2)	7	(5.9)	4.532	.104
Exclusive	9	(23.7)	10	(15.2)	4	(3.4)	24.745	<.001

Note: CSA-W = child sexual abusers working with children; CSA-E = extra-familial child sexual abusers; CSA-I = intra-familial child sexual abusers.

^a Reduced sample size due to missing values.

^{*} CSA-W vs. CSA-E group difference statistically significant ($p < .05$).

^{***} CSA-W vs. CSA-E group difference statistically significant ($p < .01$).

^{λλ} CSA-W vs. CSA-I group difference statistically significant ($p < .01$).

^{§§} CSA-E vs. CSA-I group difference statistically significant ($p < .01$).

$F(2, 198) = 11.58, p < .001$, whereas the factor one scores did not differ between the three groups, $F(2, 198) = .036, p = .965$. The prevalence among the three groups of antisocial personality disorder according to DSM-IV-TR (American Psychiatric Association, 2000) criteria revealed that the CSA-E were diagnosed with an antisocial personality disorder most often, followed by the CSA-I, $\chi^2(2, 221) = 15.93, p < .001$. Only one CSA-W (2.6%) had been diagnosed with an antisocial personality disorder (see Table 3). As far as previous problems with alcohol were concerned, CSA-I and CSA-E had had more problems than CSA-W, with CSA-E having the highest frequency of problems, $\chi^2(2, 221) = 7.19, p = .027$. Similar results were found for problems in the past with illegal drugs, with CSA-W reporting less problems than CSA-I and CSA-E, $\chi^2(2, 221) = 6.06, p = .048$.

Evaluation of pedophilic sexual interests

Victim characteristics. Although no significant differences appeared between the three groups with regard to the age of victims, CSA-I tended to have younger victims compared to CSA-E and CSA-W (see Table 4). Furthermore, differences did occur concerning the number of victims during the course of the index offense, $F(2, 221) = 16.85, p < .001$, and with regard to all previous sexual offenses, $F(2, 221) = 18.84, p < .001$, with CSA-W having the most victims during the index offense as well as with regard to all previous sexual offenses. CSA-W also more often had male victims when all offenses were taken into account, $\chi^2(2, 221) = 16.74, p < .001$, while CSA-I more often had female victims when compared to the other two groups, $\chi^2(2, 221) = 24.58, p < .001$.

Self-reported pedophilic sexual interests and clinical pedophilia diagnosis. Thirty-five (15.7%) CSA were not willing to report their sexual preferences, meaning that the sample size was reduced to 98 CSA-I (82.4%), 58 CSA-E (87.9%), and 32 CSA-W (84.2%). Table 4 shows that less than 10% of all CSA reported being sexually attracted to children. Nevertheless, more CSA-W and CSA-E reported pedophilic sexual interests, $\chi^2(2, 186) = 9.06, p = .011$. When considering the frequency of a pedophilia diagnosis using DSM-IV-TR (American Psychiatric Association, 2000) criteria, no differences were observed amongst the three groups, $\chi^2(2, 221) = 4.19, p = .123$. However, a clear tendency points to CSA-W (60.5%) being diagnosed with a pedophilia more frequently than CSA-E (40.9%) and CSA-I (42.9%). More precisely, CSA-W were more often diagnosed with a pedophilic orientation toward male children, $\chi^2(2, 221) = 32.85, p < .001$, while CSA-I were more frequently diagnosed with a pedophilic orientation toward female children, $\chi^2(2, 221) = 22.99, p < .001$. CSA-W also had the highest occurrence of an exclusively pedophilic sexual orientation (23.7%), followed by the CSA-E (15.2%). The CSA-W and CSA-E also showed higher SSPI total scores in comparison with CSA-I, with CSA-W having the highest SSPI total scores, $F(2, 221) = 40.71, p < .001$.

Discussion

Fifteen percent of all CSA assessed at the FECVSO in Vienna, Austria, between 2001 and 2007 had been convicted for having sexually abused a child at their workplace or during a spare time activity (CSA-W) that provided them with the opportunity to establish contact with children. These findings are similar to those reported by Sullivan and Beech (2004), who found a prevalence of 13.4% of CSA-W offenders in their CSA sample. There are some sample differences, namely, that Sullivan and Beech (2004) examined men who were being accused of having sexually abused a child and who were subsequently placed in a special treatment center for sexual offenders, whereas the present sample consisted of convicted and imprisoned CSA. However, these numbers emphasize that CSA-W constitute a substantial subgroup within the population of CSA (Gallagher, 2000). The finding that most CSA-W were either working as priests or schoolteachers, respectively, or were employed by these organizations, is also comparable to those of Sullivan and Beech (2004). When looking at the spare time activities that provided the CSA-W with opportunities to make contact with children, most CSA-W were found to be voluntary caretakers in youth organizations (e.g., boy scouts), sports coaches, or voluntary caretakers in school events or excursions. It is obvious that more CSA-W contacted children while participating in certain spare time activities than did so at their workplace. This result might be explained by the fact that there are less specifications and requirements regulating involvement in these voluntary activities, whereas the profession of a teacher or a priest usually requires more education, a fact which is underpinned by the finding that more CSA-W had at least 12 years of education than did individuals in the other two groups.

Concerning age at the time of conviction, it was found that CSA-W were older than CSA-E and CSA-I. Previous findings have also pointed out that CSA-W were significantly older than CSA-E and CSA-I (Haywood et al., 1996; Langevin et al., 2000; Plante et al., 1996; Sullivan & Beech, 2004), although one has to bear in mind that almost all previous studies included only clerics in the CSA-W group. Interestingly, no differences were found between the groups with regard to the age of the offenders at the time the index offense occurred or commenced. These findings, however, offer evidence for the suggestion made in previous research that it takes longer before child sexual abuse committed by a CSA-W is disclosed (Finkelhor, 1979; Firestone et al., 2009). This might, on the one hand, be the result of CSA-W employing more advanced and elaborated strategies in order to keep their victims from disclosing the abuse (Gallagher, 1999; McAlinden, 2006; Nhunda & Shumba, 2001). On the other hand, this finding could also be explained by the fact that CSA-W seem to be smarter than CSA-E and CSA-I, as indicated by their higher average IQ, their generally higher level of education, and their ability to hold a respected position within society (Haywood et al., 1996; Langevin et al., 2000; Plante et al., 1996; Sullivan & Beech, 2004).

Similar to previous findings (c.f. Sullivan & Beech, 2004; Sullivan et al., 2011), the present study also showed that CSA-W had substantially less previous convictions involving a sexual or violent offense, and had spent less time in prison previous to the index offense compared to the other two groups. Furthermore, it was found that both CSA-I and CSA-E had more problems associated with the consumption of alcohol or illegal drugs when compared to CSA-W. Previous studies have not found any differences between CSA-W and other CSA as far as problems with alcohol or substance abuse are concerned (Langevin et al., 2000). Again, one has to take into consideration that only clerics were included within the group of CSA-W in these studies. Our findings suggest in addition that CSA-W have less psychopathic traits than CSA-E and CSA-I. This suggestion is further supported by the higher prevalence of an antisocial personality disorder diagnosis within the CSA-E and CSA-I. The lower total PCL-R scores found in the CSA-W group and, most notably, the lower scores in factor two, which are related to impulsive and antisocial behaviors, also imply that CSA-W are less psychopathic, impulsive, and antisocial than CSA-E and CSA-I. Furthermore, maintaining a profession or a position in a social organization in which one is entrusted with the supervision and care of children usually requires distinctly pro-social attitudes and behaviors (Langevin et al., 2000; Moulden et al., 2010).

Taking a closer look at the victim characteristics, the current study revealed that there were no differences in the age of the victims between the three groups. Although one previous study did not find any differences concerning the age of the victims between the three groups either, another study showed that the victims of the CSA-W were more often post-pubescent than those of the CSA-I and CSA-E, respectively (Sullivan & Beech, 2004; Sullivan et al., 2011). The mean age of all victims as well as the mean age of the youngest victims was below 12 years for all three groups, and in fact previous research and the DSM-IV-TR (American Psychiatric Association, 2000) have linked pedophilic sexual interests to a preference for children under the age of 12 years (Marshall, Barbaree, & Christophe, 1986; Seto et al., 1999).

Furthermore, CSA-W were found to have a higher total number of child victims and a higher frequency of male victims than CSA-E and CSA-I, two factors that were found to correlate with a deviant sexual interest for children (Seto et al., 1999, 2004). On the other hand the higher number of victims could also be due to the generally higher frequency of interaction of CSA-W with children and adolescents compared to that of other CSA. Therefore, although a high number of child victims is seen as an indicator for pedophilic sexual interests, the possibility that some CSA-W have problems establishing sexual relationships with adults and thus opportunistically victimize the easily accessible and frequently available children on a situational basis cannot be ruled out.

Nevertheless, in the present study the CSA-W group had the highest prevalence (63.2%) of pedophilia as diagnosed according to DSM-IV-TR criteria (American Psychiatric Association, 2000), as well as the highest rate of pedophilic interest toward male children and the highest rate of the exclusive type of pedophilia. Furthermore, CSA-W tended to have the highest mean SSPI total scores, which also indicates higher levels of pedophilic sexual interests. Only a small percentage of all CSA (2–19%) in the present study admitted to having a sexual interest for children, but even when taking this variable into account, the CSA-W showed the highest prevalence in this regard, followed by the CSA-E. Despite the possibility that some

CSA-W offend on a situational basis because children are easily accessible, these findings support the suggestion that most CSA-W might have a strong sexual preference for children. Furthermore, it would seem that CSA-W are more frequently aware of their deviant sexual interests or are able to reflect more honestly on them.

As far as their risk for sexual recidivism is concerned, CSA-W lie between CSA-E and CSA-I as shown by the mean Static-99 total scores of the three groups. This finding could be due to high levels of pedophilic sexual interest but at the same time low levels of psychopathy in CSA-W. One question for future research will therefore be how good the predictive performance of the commonly used risk assessment instruments is for this particular CSA subgroup.

Although our results appear promising with regard to the suggestion that CSA-W differ from CSA-I and CSA-E in their level of psychopathy and extent of pedophilic sexual interest, they are limited by the fact that most of the data, with the exception of the psychiatric diagnoses and the scores from the risk assessment instruments, were rated retrospectively using forensic reports. Future studies should therefore choose a prospective-longitudinal approach, which could be especially helpful in identifying the particular and possibly unique grooming behaviors of CSA-W. Another limitation is the lack of data about intelligence, since previous research has shown that IQ is an important factor in distinguishing between CSA-W and other CSA subgroups (Haywood et al., 1996; Langevin et al., 2000; Sullivan & Beech, 2004). The current study has shown that CSA-W are better educated and have had more years of education than CSA-E and CSA-I, however it would be worth testing to what extent the differences found between the three groups are due to their differing levels of intelligence or education. Another important aspect that should be considered in future research is the assessment of differences between CSA-W and those men working with children who do not offend. Such an assessment could provide further insights into the etiology of the occurrence of child sexual abuse within an institutional context and could provide information about the offenders' risk of being detected.

Finally, in light of the present results it can be suggested that CSA-W are a particular and important subgroup of CSA with their own particular criminogenic needs. Furthermore, the current results raise the question as to whether CSA-W have more elaborate grooming strategies and whether the offenses committed by this special offender group are thus more difficult to disclose, or whether there are institutional and structural factors that impede disclosure. It should also be taken into consideration that some of the specific characteristics of CSA-W could act as strengths and resources for this offender group and could thus be used and focused on in interventions. In this context, in particular good integration in a social-environmental network can be seen as a protective factor that can be used to prevent future recidivism (de Ruiter & Nicholls, 2011; de Vogel, de VriesRobb , de Ruiter, & Bouman, 2011). Furthermore, a meaningful profession or free time activity has previously been described as a resource that reduces the risk of recidivism in different offender populations (de Ruiter & Nicholls, 2011; de Vogel et al., 2011). However, it is questionable whether these last two variables have the same effect within the CSA-W population because these offenders had come into contact with their (potential) victims during their work or leisure time activities. Nevertheless, CSA-W seem capable of holding an employment relationship, and if treatment can teach these offenders to participate in activities that do not provide them with direct contact with children, the workplace or a meaningful spare time activity could certainly also act as protective factors in lowering the risk of future recidivism.

In light of the present findings, future research should consider not only distinguishing between CSA-E and CSA-I but should also include CSA-W as a separate group in their analyses. Additionally, treatment approaches should take the different characteristics of CSA-W into account when planning treatment regimes because it would appear that CSA-W are characterized by different criminogenic needs and protective factors.

Conflicts of interest

Peer Briken is consultant at Dr. Pflieger GmbH, Bamberg, Germany.

References

- American Psychiatric Association. (2000). *DSM-IV-TR: Diagnostic and statistical manual of mental disorders-Text revision*. Arlington, VA: American Psychiatric Association.
- Benning, S. D., Patrick, C. J., Hicks, B. M., Blonigen, D. M., & Krueger, R. F. (2003). Factor structure of the Psychopathic Personality Inventory: Validity and implications for clinical assessment. *Psychological Assessment*, 15, 340–350.
- Bogaerts, S., Declercq, F., Vanheulen, S., & Palmans, V. (2005). Interpersonal factors and personality disorders as discriminators between intra-familial and extra-familial child molesters. *International Journal of Offender Therapy and Comparative Criminology*, 49, 48–62.
- Caspi, A., Moffit, T. E., Silva, P. A., Stouthamer-Loeber, M., Krueger, R. F., & Schmutte, P. S. (1994). Are some people crime-prone? Replications of the personality-crime relationship across countries, genders, races, and methods. *Criminology*, 32, 163–195.
- Colton, M., Roberts, S., & Vanstone, M. (2010). Sexual abuse by men who work with children. *Journal of Child Sexual Abuse*, 19, 345–364.
- Colton, M., & Vanstone, M. (1996). *Betrayal of trust: Sexual abuse by men who work with children*. London, England: Free Association Books.
- de Ruiter, C., & Nicholls, T. L. (2011). Protective factors in forensic mental health: A new frontier. *International Journal of Forensic Mental Health*, 10, 160–170.
- de Vogel, V., de VriesRobb , M., de Ruiter, C., & Bouman, Y. H. A. (2011). Assessing protective factors in forensic psychiatric practice: Introducing the SAPROF. *International Journal of Forensic Mental Health*, 10, 171–177.
- Eher, R., Matthes, A., Schilling, F., Haubner-Maclean, T., & Rettenberger, M. (2012). Dynamic risk assessment in sexual offenders using STABLE-2000 and the STABLE-2007: An investigation of predictive and incremental validity. *Sexual Abuse: A Journal of Research and Treatment*, 24, 5–28.
- Eher, R., Rettenberger, M., Hirtenlehner, H., & Schilling, F. (2012). Dimensionalestruktur und prognostische Relevanz der PCL-R in einer population  sterreichischer sexualstraft ter [Factorial structure and predictive validity of the PCL-R in an Austrian sexual offender population]. *Monatsschrift f r Kriminologie und Strafrechtsreform*, 95, 235–251.

- Eher, R., Schilling, F., Haubner-MacLean, T., Jahn, T., & Rettenberger, M. (2012). Ermittlung des relativen und absoluten Rückfallrisikos mithilfe des Static-99 in einer deutschsprachigen Population entlassener Sexualstraftäter [Assessment of the relative and absolute risk of recidivism using Static-99 in a German-speaking population of released sexual offenders]. *Forensische Psychiatrie, Psychologie, Kriminologie*, 6, 32–40.
- Finkelhor, D. (1979). What's wrong with sex between adults and children? Ethics and the problem of sexual abuse. *American Journal of Orthopsychiatry*, 49, 692–697.
- Finkelhor, D. (1984). *Child sexual abuse: New theory and research*. New York, NY: Free Press.
- Firestone, P., Bradford, J. M., McCoy, M., Greenberg, D. M., Larose, M. R., & Curry, S. (1999). Prediction of recidivism in incest offenders. *Journal of Interpersonal Violence*, 14, 511–531.
- Firestone, P., Moulden, H. M., & Wexler, A. F. (2009). Clerics who commit sexual offences: Offender, offence, and victim characteristics. *Journal of Child Sexual Abuse*, 18, 442–454.
- Fisher, D., Beech, A. R., & Browne, K. (1999). Comparison of sex offender to nonoffenders on selected psychological measures. *International Journal of Offender Therapy and Comparative Criminology*, 43, 473–491.
- Fisher, D., & Mair, G. (1998). *A review of classification schemes for sex offenders*. London, England: Her Majesty's Stationary Office.
- Fleiss, J. L. (1986). *The design and analysis of clinical experiments*. New York, NY: John Wiley.
- Freund, K., & Blanchard, R. (1989). Phallometric diagnosis of pedophilia. *Journal of Consulting and Clinical Psychology*, 57, 100–105.
- Freund, K., & Watson, R. (1991). Assessment of the sensitivity and specificity of aphallometric test: An update of phallometric diagnosis of pedophilia. *Psychological Assessment*, 3, 254–260.
- Gallagher, B. (1999). The abuse of children in public care. *Child Abuse Review*, 8, 357–365.
- Gallagher, B. (2000). The extent and nature of known cases of institutional child sexual abuse. *British Journal of Social Work*, 30, 795–817.
- Goffredson, M. R., & Hirschi, T. (1990). *A general theory of crime*. Stanford, CA: Stanford University Press.
- Hanson, R. K., Bourgon, G., Helmus, L., & Hodgson, S. (2009). The principles of effective correctional treatment also apply to sexual offenders: A meta-analysis. *Criminal Justice and Behavior*, 36, 865–890.
- Hanson, R. K., & Bussière, M. T. (1998). Predicting relapse: A meta-analysis of sexual offender recidivism studies. *Journal of Consulting and Clinical Psychology*, 66, 348–362.
- Hanson, R. K., & Morton-Bourgon, K. E. (2005). The Characteristics of persistent sexualoffenders: A meta-analysis of recidivism studies. *Journal of Consulting and Clinical Psychology*, 73, 1154–1163.
- Hanson, R. K., & Morton-Bourgon, K. E. (2009). The accuracy of recidivism risk assessments for sexual offenders: A meta-analysis of 118 prediction studies. *Psychological Assessment*, 21, 1–21.
- Hanson, R. K., & Thornton, D. (1999). *Static-99: Improving actuarial risk assessments for sex offenders (User Report No. 1999-02)*. Ottawa: Department of the Solicitor General of Canada.
- Hanson, R. K., & Thornton, D. (2000). Improving risk assessments for sex offenders: A comparison of three actuarial scales. *Law and Human Behavior*, 24, 119–136.
- Hare, R. D. (2003). *The Hare Psychopathy Checklist (revised 2nd ed.)*. Toronto, Canada: Multi-Health Systems.
- Haywood, T. W., Kravitz, H. M., Grossman, L. S., Wasyliv, O. E., & Hardy, D. W. (1996). Psychological aspects of sexual functioning among cleric and noncleric alleged sex offenders. *Child Abuse & Neglect*, 6, 527–536.
- Hildebrand, M., de Ruiter, C., & de Vogel, V. (2004). Psychopathy and sexual deviance in treated rapists: Association with sexual and nonsexual recidivism. *Sexual Abuse: A Journal of Research and Treatment*, 16, 1–24.
- Kaufman, K. L., Hilliker, D. R., Lathrop, P., Daleiden, E. L., & Rudy, L. (1996). Sexual offenders' modus operandi: A comparison of structured interview and questionnaire approaches. *Journal of Interpersonal Violence*, 11, 19–34.
- Langevin, R., Curnoe, S., & Bain, J. (2000). A study of clerics who commit sexual offences: Are they different from other sex offenders? *Child Abuse & Neglect*, 24, 535–545.
- Leclerc, B., Proulx, J., & McKibben, A. (2005). Modus operandi of sexual offenders working or doing voluntary work with children and adolescents. *Journal of Sexual Aggression*, 11, 187–195.
- Levin, S. M., & Stava, L. (1987). Personality characteristics of sex offenders: A review. *Archives of Sexual Behavior*, 1, 57–79.
- Loftus, J. A., & Camargo, R. J. (1993). Treating the clergy. *Annals of Sex Research*, 6, 287–304.
- Mack, C., & Yundina, E. (2012). Emotionale Kongruenz mit der Kinderwelt als mögliches diagnostisches Merkmal von Pädophilie? In J. M. Müller, M. Rösler, P. Briken, P. Fromberger, & K. Jordan (Eds.), *EFPPP Jahrbuch 2012 – Empirische Forschung in der Forensischen Psychiatrie, Psychologie und Psychotherapie* (pp. 71–83). Berlin, Germany: Medizinisch-Wissenschaftliche Verlagsgesellschaft.
- Magalhaes, T., Taveira, F., Jardim, P., Santos, L., Matos, E., & Santos, A. (2009). Sexual abuse of children. A comparative study of intra and extra-familial cases. *Journal of Forensic and Legal Medicine*, 16, 455–459.
- Margolin, L., & Craft, J. L. (1989). Child sexual abuse by caretakers. *Family Relations*, 38, 450–455.
- Marshall, W. L., Barbaree, H. E., & Christophe, D. (1986). Sexual offenders against female children: Sexual preferences for age of victims and type of behavior. *Canadian Journal of Behavioral Science*, 18, 424–439.
- McAlinden, A. M. (2006). "Setting em up": Personal, familial and institutional grooming in the sexual abuse of children. *Social & Legal Studies*, 15, 339–362.
- Moulden, H. M., Firestone, P., Kingston, D. A., & Wexler, A. F. (2010). A description of sexual offending committed by Canadian teachers. *Journal of Child Sexual Abuse*, 19, 403–418.
- Moulden, H. M., Firestone, P., & Wexler, A. F. (2007). Child care providers who commit sexual offences: A description of offender, offence and victim characteristics. *International Journal of Offender Therapy and Comparative Criminology*, 51, 384–406.
- Nhunda, T. J., & Shumba, A. (2001). The nature and frequency of reported cases of teacher perpetrated child sexual abuse in rural primary schools in Zimbabwe. *Child Abuse & Neglect*, 25, 1517–1534.
- Plante, T. G., Manuel, G., & Bryant, C. (1996). Personality and cognitive functioning among hospitalized sexual offending Roman Catholic priests. *Pastoral Psychology*, 45, 129–139.
- Quinsey, V. L., Lalumière, M. L., Rice, M. E., & Harris, G. T. (1995). Predicting sexual offenses. In J. C. Campbell (Ed.), *Assessing dangerousness: Violence by sexual offenders, batterers, and child abusers*. (pp. 114–137). Thousand Oaks, CA: Sage.
- Quinsey, V. L., Rice, M. E., & Harris, G. (1995). Actuarial prediction of sexual recidivism. *Journal of Interpersonal Violence*, 10, 85–105.
- Rettenberger, M., Boer, D. P., & Eher, R. (2011). The predictive accuracy of risk factors in the Sexual Violence Risk-20 (SVR-20). *Criminal Justice and Behavior*, 38, 1009–1027.
- Rettenberger, M., & Eher, R. (2006). Actuarial assessment of sex offender recidivism risk: A validation of the German version of the Static-99. *Sexual Offender Treatment*, 1, 1–11.
- Rettenberger, M., Matthes, A., Boer, D. P., & Eher, R. (2010). Prospective actuarial risk assessment: A comparison of five risk assessment instruments in different sexual offender subtypes. *International Journal of Offender Therapy and Comparative Criminology*, 54, 169–186.
- Seto, M. C., Harris, G. T., Rice, M. E., & Barbaree, H. E. (2004). The screening scale for pedophilic interests predicts recidivism among adult sex offenders with child victims. *Archives of Sexual Behavior*, 33, 455–466.
- Seto, M. C., & Lalumière, M. L. (2001). A brief screening scale to identify pedophilic interests among CSA. *Sexual Abuse: A Journal of Research and Treatment*, 13, 15–25.
- Seto, M. C., Lalumière, M. L., & Kuban, M. (1999). The sexual preferences of incest offenders. *Journal of Abnormal Psychology*, 108, 267–272.
- Seto, M. C., Murphy, W. D., Page, J., & Ennis, L. (2003). Detecting anomalous sexual interests among juvenile sex offenders. *Annals of the New York Academy of Sciences*, 989, 106–118.

- Sullivan, J., & Beech, A. R. (2002). Professional perpetrators: Sex offenders who use their employment to target and sexually abuse the children with whom they work. *Child Abuse Review*, 11, 153–167.
- Sullivan, J., & Beech, A. R. (2004). A comparative study of demographic data relating to intra- and extra-familial child sexual abusers and professional perpetrators. *Journal of Sexual Aggression*, 10, 39–50.
- Sullivan, J., Beech, A. R., Craig, L. A., & Gannon, T. A. (2011). Comparing intra-familial and extra-familial child sexual abusers with professionals who have sexually abused children with whom they work. *International Journal of Offender Therapy and Comparative Criminology*, 55, 56–74.
- Ward, T., & Beech, A. R. (2006). An integrated theory of sexual offending. *Aggression and Violent Behavior*, 11, 44–63.