UNIVERSITY OF AMSTERDAM

UvA-DARE (Digital Academic Repository)

Sexual abuse in very young children: a psychological assessment in the Amsterdam Sexual Abuse Case study

van Duin, E.M.; Verlinden, E.; Vrolijk-Bosschaart, T.F.; Diehle, J.; Verhoeff, A.P.; Brilleslijper-Kater, S.N.; Lindauer, R.J.L.

DOI
10.1080/20008198.2018.1503524

Publication date
2018

Document Version
Final published version

Published in
European Journal of Psychotraumatology

License
CC BY-NC

Link to publication

Citation for published version (APA):
van Duin, E. M., Verlinden, E., Vrolijk-Bosschaart, T. F., Diehle, J., Verhoeff, A. P., Brilleslijper-Kater, S. N., & Lindauer, R. J. L. (2018). Sexual abuse in very young children: a psychological assessment in the Amsterdam Sexual Abuse Case study. *European Journal of Psychotraumatology*, *9*, Article 1503524. https://doi.org/10.1080/20008198.2018.1503524

General rights
It is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), other than for strictly personal, individual use, unless the work is under an open content license (like Creative Commons).

Disclaimer/Complaints regulations
If you believe that digital publication of certain material infringes any of your rights or (privacy) interests, please let the Library know, stating your reasons. In case of a legitimate complaint, the Library will make the material inaccessible and/or remove it from the website. Please Ask the Library: https://uba.uva.nl/en/contact, or a letter to: Library of the University of Amsterdam, Secretariat, P.O. Box 19185, 1000 GD Amsterdam, The Netherlands. You will be contacted as soon as possible.
UvA-DARE is a service provided by the library of the University of Amsterdam (https://dare.uva.nl)

Download date:11 Nov 2026

EUROPEAN JOURNAL OF PSYCHOTRAUMATOLOGY
2018, VOL. 9, 1503524
https://doi.org/10.1080/20008198.2018.1503524

EUROPEAN JOURNAL OF PSYCHO-TRAUMATOLOGY
THE OFFICIAL JOURNAL OF THE EUROPEAN SOCIETY FOR TRAUMATIC STRESS STUDIES

Taylor & Francis
Taylor & Francis Group

BASIC RESEARCH ARTICLE

OPEN ACCESS Check for updates

Sexual abuse in very young children: a psychological assessment in the Amsterdam Sexual Abuse Case study

Esther M. van Duin [a], Eva Verlinden [a,b], Thekla F. Vrolijk-Bosschaart [c], Julia Diehle [a], Arnoud P. Verhoeff [b], Sonja N. Brilleslijper-Kater [c] and Ramón J.L. Lindauer [a,d]

[a]Department of Child and Adolescent Psychiatry, Academic Medical Center, University of Amsterdam, Amsterdam, The Netherlands; [b]Department of Epidemiology, Health Promotion & Healthcare Innovation, Public Health Service Amsterdam, Amsterdam, The Netherlands; [c]Department of Social Pediatrics, Child Abuse and Neglect Team, Academic Medical Center, Amsterdam, The Netherlands; [d]De Bascule, Academic Center for Child and Adolescent Psychiatry, Amsterdam, The Netherlands

ABSTRACT

Background: Child sexual abuse (CSA) is a worldwide problem affecting children of all ages and socioeconomic backgrounds. A knowledge gap exists regarding the psychological outcomes for children, boys in particular, who are abused during their early lives.

Objective: To provide a descriptive psychological profile of children who experienced sexual abuse as infants or toddlers from a male daycare worker and babysitter, and to assess the psychopathological impact on their parents.

Method: Parents of children involved in the Amsterdam Sexual Abuse Case (41 parents; 44 children, age range 3–11 years, 30 boys, 14 girls) completed measures on post-traumatic stress disorder (PTSD), dissociation, sexual and non-sexual behaviour problems, and attachment insecurity in their children, as well as on parental psychological well-being, 3 years after disclosure. Sexual abuse characteristics were obtained from police records.

Results: We found that 3% of confirmed child victims had PTSD, 30% sexual behaviour problems, 24% internalizing problems, 27% attachment insecurity, and 18% any psychiatric disorder (including PTSD); 39% were asymptomatic. In parents, we found feelings of guilt, shame, and anger about the abuse of their child; 19% showed PTSD symptoms and 3% showed avoidant and 8% anxious attachment problems in their intimate relationship. Parental symptomatology was related to child symptomatology, except for child sexual behaviour problems. One-quarter of confirmed child victims and 45% of parents had received psychological treatment.

Conclusions: Three years after disclosure, extrafamilial CSA in very young children was associated with sexual and non-sexual behaviour problems and attachment insecurity, but rarely with PTSD or dissociation. For parents it was associated with PTSD symptoms and emotional reactions. Assessments and interventions should focus on the wide spectrum of problems that follow CSA, as well as on parental psychopathology and the parent–child relationship. Future follow-up assessments in our longitudinal study should provide insights into longer-term outcomes.

Abuso sexual en niños muy pequeños: una evaluación psicológica en el estudio ASAC

Antecedentes: el abuso sexual infantil (ASI) es un problema mundial que afecta a niños de todas las edades y de todos los estratos socioeconómicos. Existe una brecha de conocimiento con respecto a los resultados psicológicos para los niños, en particular los varones, quienes son abusados durante sus primeros años de vida.

Objetivo: Proporcionar un perfil psicológico descriptivo de niños que experimentaron abuso sexual cuando eran bebés o niños pequeños de un trabajador de guardería y niñera, y evaluar el impacto psicopatológico en sus padres.

Método: Padres de niños involucrados en el caso de abuso sexual de Amsterdam (ASAC) (41 padres, 44 niños-rango de edad 3–11 años, 30 niños, 14 niñas) completaron medidas sobre trastorno de estrés postraumático (TEPT), disociación, problemas de conducta sexualy no sexualy apego inseguro en sus hijos, así como en el bienestar psicológico de los padres, 3 años después de la develación. Las características de abuso sexual se obtuvieron de los registros policiales.

Resultados: encontramos que el 3% de las víctimas infantiles confirmadas tenían TEPT, 30% tenían problemas de conducta sexual, 24% problemas de internalización, 27% apego inseguro y 18% cualquier trastorno psiquiátrico (incluido el TEPT); 39% fueron asintomáticos. En los padres encontramos sentimientos de culpa, vergüenza e ira por el abuso de sus hijos; El 19% mostró síntomas de TEPT y el 3% mostró problemas de apego evitativo y el 8% ansioso en sus relaciones íntimas. La sintomatología de los padres se relacionó con la sintomatología de los niños, a excepción de los problemas de conducta

ARTICLE HISTORY
Received 1 June 2018
Revised 29 June 2018
Accepted 2 July 2018

KEYWORDS
Sexual abuse; infant; preschool child; psychological adjustment; parents

PALABRAS CLAVES
Abuso sexual; infante; niño pre-escolar; adaptación psicológica; padres

关键词
性虐待; 婴儿; 学龄前儿童; 心理调整; 父母

HIGHLIGHTS

- Amsterdam Sexual Abuse Case victims show (sexual) behaviour and attachment problems, but little PTSD.
- Parents show PTSD and emotional reactions.
- Interventions should focus on a wide spectrum of problems following CSA, on parental psychopathology, and parent–child relationships.

CONTACT Esther M. van Duin e.m.vanduin@amc.nl Department of Child and Adolescent Psychiatry, Academic Medical Center, University of Amsterdam, PO Box 303, 1115 Duivendrecht, ZG, The Netherlands

Supplementary data for this article can be accessed here.

© 2018 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group.
This is an Open Access article distributed under the terms of the Creative Commons Attribution-NonCommercial License (http://creativecommons.org/licenses/by-nc/4.0/), which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

sexual infantil. Una cuarta parte de las víctimas infantiles confirmadas y el 45% de los padres habían recibido tratamiento psicológico.
Conclusiones: Tres años después de la develación, el ASI extrafamiliar en niños muy pequeños se asoció con problemas de comportamiento sexual y no sexual y apego inseguro, sin embargo, raramente con trastorno de estrés postraumático o disociación. Para los padres se asoció con síntomas de TEPT y reacciones emocionales. Las evaluaciones e intervenciones deben enfocarse en el amplio espectro de problemas que siguen al ASI, así como en la psicopatología de los padres y la relación entre padres e hijos. Las futuras evaluaciones de seguimiento en nuestro estudio longitudinal deberían proporcionar información sobre los resultados a más largo plazo.

幼儿性虐待：ASAC研究中的心理评估

背景：儿童性虐待（CSA）是一个对所有年龄和所有社会经济背景的儿童产生影响的世界性问题。关于儿童—尤其是男孩—在幼年遭受虐待的心理结果还存在认识不足的现象。

目的：被试包括婴幼儿时期在日托中心遭受一名男保姆性虐待的数名儿童，对其进行心理剖面描述，并评估该事件对其父母的精神病理学影响。

方法：阿姆斯特丹性虐待案件（ASAC）三年后，涉案儿童的父母（41名父母；44名儿童，年龄范围3–11岁，30名男孩，14名女孩）完成了创伤后应激障碍（PTSD），分离，性相关和非性相关的行为问题，子女的不安全依恋以及父母的心理幸福感状况。性虐待特征来自警方记录。

结果：我们发现3％的确认儿童受害者患有创伤后应激障碍，30％有性行为问题，24％有内化问题，27％有依恋不安全，18％有任何一种精神疾病（包括创伤后应激障碍）；39％没有症状。在父母中，我们发现了对受虐儿童的内疚，羞耻和愤怒的感觉；19％表现出创伤后应激障碍的症状，3％的人表现出回避依恋和8％的焦虑依恋问题。父母症状与儿童症状有关，但除儿童性行为问题外。四分之一的确认儿童受害者和45％的父母接受过心理治疗。

结论：在事发三年后，幼儿遭受家庭外CSA与儿童性相关和非性相关的行为问题以及不安全依恋相关，但与创伤后应激障碍或分离症状较少相关；与父母的PTSD症状和情绪反应相关。评估和干预措施应关注于CSA后的各种问题，以及父母的精神病理和亲子关系。我们的纵向研究中之后的随访评估将对更远期的结果提供证据。

1. Introduction

Child sexual abuse (CSA) is a worldwide problem affecting children of all ages and all socioeconomic backgrounds (Stoltenborgh, van IJzendoorn, Euser, & Bakermans-Kranenburg, 2011). It can lead to a variety of physical and mental health problems in childhood and later adulthood (Cutajar et al., 2010; Irish, Kobayashi, & Delahanty, 2010). Globally, some one in 10 children, more girls than boys, are sexually abused before the age of 18 (Stoltenborgh et al., 2011). Prompt and adequate care can avert many short-term and longer-term consequences (Macdonald et al., 2012). Although studies are accumulating that improve our understanding of psychological outcomes for victims of adolescent and adult sexual abuse, a knowledge gap still exists regarding children, and boys in particular, who are abused during their early lives. Some 25–35% of CSA victims are thought to be below the age of 7 years (Fontanella, Harrington, & Zuravin, 2001; Putnam, 2003). If we know what the specific sequelae of CSA are, we can improve the early detection of abuse-related problems and enhance therapeutic intervention to prevent further dysregulation.

Studies suggest that the effects of stress during the first few years of life – a critical period for brain development – are more invasive and enduring than they are for children exposed to stress at older ages, and that they may have different outcomes (Andersen et al., 2008; Lupien, McEwen, Gunnar, & Heim, 2009). Stress may also have different biobehavioural effects in males than in females (Klein & Corwin, 2002). Yet, studies on CSA outcomes generally focus on older, female victims, because female prevalence rates are higher (Stoltenborgh et al., 2011). The detection of CSA in very young children is also complicated by the absence of CSA-specific signs in most victims (Vrolijk-Bosschaart et al., 2017a).

Parental support can potentially buffer the effects of stress (Domhardt, Münzer, Fegert, & Goldbeck, 2015), but provision of that support can be compromised by the emotionally impairing impact that the disclosure of CSA may have on parents, on their relationship with a partner, and on the quality of the parent–child relationship (Fresno, Spencer, Ramos, & Pierrehumbert, 2014; Kilroy, Egan, Maliszewska, & Sarma, 2014). Because younger children depend on parental care more than older children, and given the importance of parental support in children's adjustment after CSA, it is important to study the effects of CSA in young children in the contexts of parental psychological well-being and the quality of the parent–child relationship.

Most studies have found it difficult to differentiate the effects of CSA from those of emotional and physical abuse and neglect and those of a dysfunctional family, as these often coexist (Dong, Anda, Dube, Giles, & Felitti, 2003). Moreover, studies largely fail

to distinguish between effects of intrafamilial and extrafamilial CSA (Kendall-Tackett, Williams, & Finkelhor, 1993). Two other general problems in studying the effects of CSA are the lack of legal, objective evidence of the events and the necessity of examining the effects retrospectively. This makes it very hard to objectify exposure to CSA, and it may lead to biased results.

The Amsterdam Sexual Abuse Case (ASAC) study makes possible an examination of the psychological sequelae of exclusively extrafamilial CSA on children and their parents in a group of children sexually abused at a very young age, predominantly boys. Such information could be essential for providing future victims, their parents, legal professionals, and mental health workers with knowledge about what to expect and how to provide optimal support. This article seeks (1) to determine the psychological sequelae for sexually abused infants and toddlers in terms of posttraumatic stress disorder (PTSD), dissociation, sexual and non-sexual behaviour problems, and attachment insecurity, as assessed 3 years after disclosure; and (2) to examine the psychological sequelae for parents in terms of PTSD and the quality of partner relationships 3 years after disclosure. A secondary focus is on possible differences in outcomes between boys and girls, and between children with confirmed versus suspected abuse.

2. Methods

2.1. Setting

In 2010, a male daycare employee and babysitter in Amsterdam was suspected of sexually abusing dozens of very young children. The case, which became known as the ASAC, came to light in a child pornography investigation in the USA. Police decrypted pornographic images, and the suspect eventually admitted sexually abusing 87 children, mostly boys. Parents of 20 children declined to press charges, and the daycare worker was convicted of abusing 67 children, as well as possessing, producing, and distributing child pornography. The ASAC is unique owing to its large scale, the young age of the victims, the large proportion of boys involved (all abused under similar circumstances), the strong evidence, and the detailed documentation available about the abuse. The current study is part of the larger ASAC study (Lindauer et al., 2014; Vrolijk-Bosschaart et al., 2017a, 2017b). It reports on the first follow-up (T_1), carried out in 2013, 3 years after the case was disclosed. The ASAC study was approved by the Medical Ethics Review Committee of the Academic Medical Center of Amsterdam.

2.2. Sample

All children involved in the ASAC who had experienced sexual abuse, or for whom there were strong suspicions of abuse, and their parents were eligible for inclusion. A child was considered a confirmed victim if he or she had been identified in pornographic images found by police and/or if the perpetrator had confessed to sexually abusing the child. A child was considered a suspected victim if the perpetrator had been in contact with him or her at daycare and/or had babysat for the child and if the parents suspected abuse. That suspicion might be based on their subjective 'gut feeling' or on rather more objective physical or behavioural symptoms observed in the child. Those children and their parents were included because sexual abuse could not be excluded and because ASAC study participation was also intended to have an aftercare function, monitoring the well-being of children and parents. Not allowing participation to suspected victims and their parents was therefore considered unethical. Children not meeting the above criteria were excluded. Results for confirmed and suspected victims are reported separately.

2.3. Procedure

The second author (EV) contacted parents of all confirmed victims (n = 87) and potential participants for the study (n = 133), and informed them about the study. After obtaining informed parental consent, five researchers (CSJ, EPMM, EV, MEA, and MRG; see Acknowledgements), all of them child and adolescent psychologists with experience in the field of trauma, interviewed the parents face-to-face at the Department of Child Psychiatry of the Academic Medical Center or at the Public Health Service, both in Amsterdam. If preferred by a parent, interviews were held at home (n = 4), but only if the researcher and parent could talk privately without the presence of their child(ren). Parents additionally completed a battery of online caregiver-report and self-report questionnaires.

2.4. Measures

This article reports results of the measures administered to parents only. For a complete overview and detailed description of the measures we used, supplementary material is available online or on request.

During the face-to-face interview, we obtained demographic data and information about whether the parents and/or child had received psychological treatment following CSA disclosure. The nature of treatment was determined from therapy records after written informed consent had been obtained

from the parents. Abuse characteristics were obtained from police reports. The measures described in the following two subsections were employed.

2.5. Psychopathology in children

- *Diagnostic Infant and Preschool Assessment (DIPA)* (Scheeringa & Haslett, 2010). For children up to the age of 7 years, the DIPA assessed major depressive disorder (MDD), attention-deficit hyperactivity disorder (ADHD), oppositional defiant disorder (ODD), separation anxiety disorder (SAD), specific phobia, social phobia, generalized anxiety disorder (GAD), trauma history, PTSD, and subthreshold PTSD, according to the Diagnostic and Statistical Manual of Mental Disorders, 4th Edition (DSM-IV) (American Psychiatric Association, 1994). In anticipation of the release of the 5th Edition (DSM-5), we measured PTSD using the expected DSM-5 criteria for children aged 6 years and younger, which are claimed to be more developmentally sensitive (American Psychiatric Association, 2013; Gigengack, van Meijel, Alisic, & Lindauer, 2015). We defined subthreshold PTSD as the presence of symptoms from two of the three clusters *and* parental reports of child functional impairment (Gigengack et al., 2015; McLaughlin et al., 2015).
- *Anxiety Disorders Interview Schedule for DSM-IV Child Version, Parent Interview Schedule (ADIS-/P)* (Silverman & Albano, 1996). For children older than 7 years, we used the ADIS-P to assess the above DSM-IV disorders plus panic disorder, agoraphobia, obsessive–compulsive disorder (OCD), dysthymia, and conduct disorder (CD).
- *Children's Revised Impact of Event Scale, Parent Version (CRIES-13)* (Children and War Foundation, 1998). This questionnaire measures symptoms of PTSD in children. In the current study, internal consistency using Cronbach's α was .89 for the total score.
- *Child Dissociative Checklist (CDC)* (Putnam, Helmers, & Trickett, 1993). This questionnaire measures symptoms of dissociation in children. Internal consistency (α) was .69.
- *Child Sexual Behavior Inventory (CSBI)* (Friedrich, 1997). This questionnaire was used to measure sexual behaviour problems in children. Internal consistency (α) was .83.
- *Child Behavior Checklists 1½-5 and 6–18 (CBCL)* (Achenbach, Dumenci, & Rescorla, 2003). These questionnaires were used to assess internalizing and externalizing problems in children. Internal consistency (α) was .95 and .96, respectively.
- *Attachment Insecurity Screening Inventories 2–5 and 6–12 (AISI)* (Polderman et al., 2008; Wissink et al., 2016). The AISI parental report screens for attachment insecurity in children. Internal consistency (α) was .86 and .78, respectively.

2.6. Psychopathology in parents

- *Impact of Event Scale – Revised (IES-R)* (Weiss & Marmar, 1997). This questionnaire measures PTSD symptoms in adults. In the current study, internal consistency (α) for the total score was .94.
- *Parent Emotional Reaction Questionnaire (PERQ)* (Mannarino & Cohen, 1996). This questionnaire measures parental emotional responses to children's traumas. Internal consistency (α) was .95.
- *Experiences in Close Relationships (ECR)* (Brennan, Clark, & Shaver, 1998). This questionnaire measures attachment in adult partner relationships. Internal consistency (α) was .93 for the total score.

2.7. Statistical analysis

We first compared participants with non-participants for differences in gender and age, using chi-squared and Mann–Whitney *U* tests. We analysed all data using descriptive statistics. To test for differences in mean questionnaire scores associated with victim status (confirmed versus suspected) and gender (boys versus girls, fathers versus mothers) and abuse severity (mild versus severe), we used independent samples *t*-tests or Mann–Whitney *U* tests, depending on skewness and distribution of data. To make a comparison based on abuse severity, we divided type of abuse into 'no penetration' (score 1) and 'oral/vaginal/anal penetration' (score 2) and added this score to the frequency score 'once or twice' (score 1), 'three to 10 times' (score 2), and 'more than 10 times' (score 3). Scores could range from 2 to 5, increasing in severity. Next, children with scores of 2 and 3 were assigned to the category 'mild abuse', while children with scores of 4 and 5 were assigned to the category 'severe abuse'. Duration was not included because frequency and duration are highly correlated (Browne & Finkelhor, 1986). The relationship between parental symptomatology and child symptomatology was estimated using Spearman's rank correlation coefficient. All analyses were two tailed, with $p \leq .05$ considered significant. We conducted the analysis in SPSS version 24 (IBM Corp., Armonk, NY, USA).

3. Results

In total, 41 parents (32 biological mothers and nine biological fathers) were included in the study, representing 44 children (age range 3–11 years, 30 boys and 14 girls) from 37 families (14

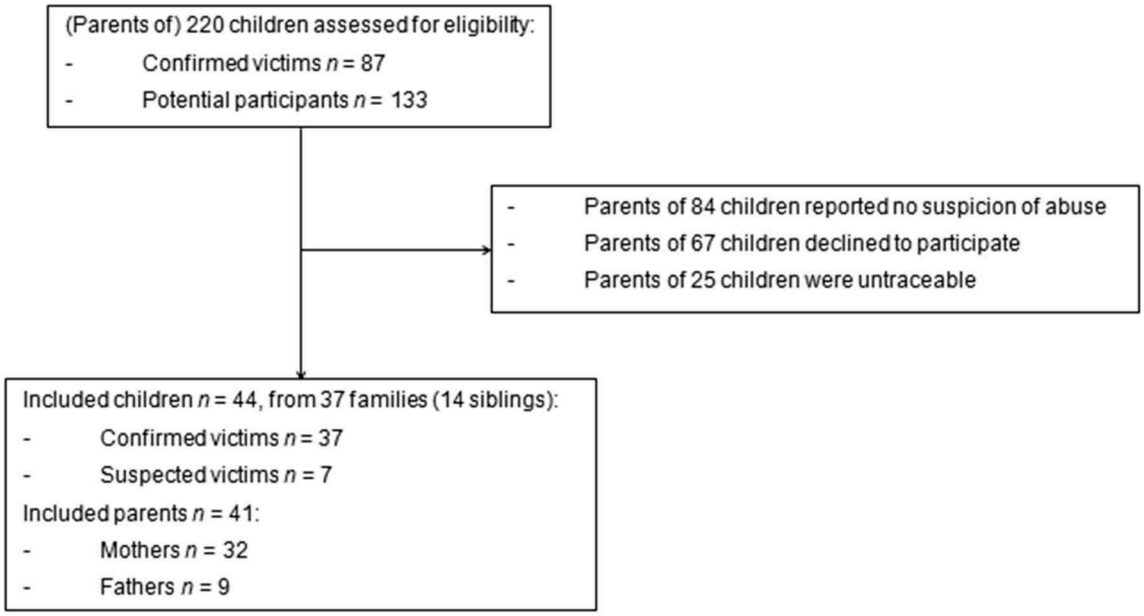

Figure 1. Study flowchart.

Table 1. Demographic characteristics (n = 44).

	Confirmed victims (n = 37)		Suspected victims (n = 7)	
	Mean (min–max)	SD	Mean (min–max)	SD
Age at assessment (years)	6.2 (3–9)	1.3	6.7 (3–11)	2.6
	n	%	n	%
Gender (male)	29	78.4	1	14.3
Ethnicity				
Native Dutch	21	56.8	5	71.4
Non-native Western	10	27.0	2	28.6
Non-native non-Western	6	16.2	0	0.0
Family composition				
Intact family	34	91.9	5	71.4
Single parent	0	0.0	2	28.6
Co-custody	3	8.1	0	0.0
Household income				
Above average	27	73.0	5	71.4
Average	3	8.1	0	0.0
Below average	2	5.4	2	28.6
Unknown	5	13.5	0	0.0
Parents' education				
≥ 4 years' college	35m/30f	94.6m/81.1f	7m/5f	100.0m/71.4f
Some college	2m/4f	5.4m/10.8f	0m/1f	0.0m/14.3f
≤ High school	0m/3f	0.0m/8.1f	0m/1f	0.0m/14.3f

m, mothers; f, fathers.

children were siblings). Among the children were 37 confirmed CSA victims [29 boys (78.4%), eight girls (21.6%); mean age 6.2, SD 1.3 years at the time of assessment] and seven suspected victims [one boy (14.3%), six girls (85.7%); mean age 6.7, SD 2.6 years] (Figure 1 and Table 1). For the confirmed victims (n = 87), no differences were found between participants (n = 37) and non-participants (n = 50) in terms of gender (χ^2 = 0.46, p = .50) or age (U = 869.5, Z = −0.48, p = .63).

According to police reports, all confirmed victims were under the age of 4 when the sexual abuse began, with a mean age of 1.4 (SD = 0.9) years. All children except three (91.7%) experienced more than one type of CSA (mean 3.4, SD 1.3). Most of the children were fondled (91.9%), exposed to the genitals of the perpetrator (83.8%) and/or ejaculated onto (67.6%). Half of the children were subjected to oral copulation with the perpetrator (56.8%) and over one-third of the children experienced a form of penetration

Table 2. Abuse characteristics of confirmed victims (n = 37).

	Mean (min–max)	SD
Age at abuse onset (years)	1.4 (0–3)	0.9
No. of CSA types per child	3.4 (1–5)	1.3
	n	%
CSA type[a]		
Exposure of genitals to child	31	83.8
Ejaculation onto child	25	67.6
Fondling[b]	34	91.9
Oral copulation	21	56.8
Penetration of anus or vagina with finger, penis, or sex toy	13	35.1
Frequency		
Once or twice	16	43.2
Three to 10 times	15	40.5
More than 10 times	4	10.8
Unknown	2	5.4
Cases with pornographic evidence	15	40.5
Location of abuse		
Daycare	13	35.1
Home	20	54.1
Both	4	10.8

Approximations based on police reports.
[a] The frequencies and percentages of child sexual abuse (CSA) type are non-additive because almost all children experienced more than one type of sexual abuse.
[b] Described by perpetrator as touching genitalia or masturbating the child.

(35.1%). The majority of the children had been abused on more than two occasions (51.3%) and for 15 children pornographic evidence was present (40.5%). One-third of the children were exclusively abused at daycare (35.1%) while half of the children were exclusively abused at home (54.1%). Four children were abused both at home and at daycare (10.8%) (Table 2). No interviewed parents reported that their child had experienced any other CSA event or any other type of maltreatment than in the ASAC.

3.1. Psychopathology in children

Table 3 gives an overview of the diagnostic outcomes for confirmed and suspected victims. The numbers of respondents differ for each measure owing to the questionnaire age ranges. Results for confirmed victims are elaborated below.

Table 3. Psychopathology in children.

	Confirmed victims			Suspected victims		
	n	*n* Clinical (%)	Mean (SD)	*n*	*n* Clinical (%)	Mean (SD)
Diagnostic interviews	33			7		
PTSD (CSA/OE)		1 (3.3)/1 (3.3)[a]	–		0 (0.0)	–
Subthreshold PTSD (CSA/OE)		2 (6.1)/1 (3.3)	–		1 (14.3)/1 (14.3)	–
MDD		0 (0.0)	–		0 (0.0)	–
Dysthymia		0 (0.0)	–		0 (0.0)	–
ADHD		2 (6.1)	–		0 (0.0)	–
ODD		0 (0.0)	–		0 (0.0)	–
CD		0 (0.0)	–		0 (0.0)	–
SAD		0 (0.0)	–		0 (0.0)	–
Specific phobia		2 (6.1)	–		0 (0.0)	–
Social phobia		0 (0.0)	–		0 (0.0)	–
GAD		2 (6.1)	–		0 (0.0)	–
Panic disorder		0 (0.0)	–		0 (0.0)	–
Agoraphobia		0 (0.0)	–		0 (0.0)	–
OCD		0 (0.0)	–		0 (0.0)	–
Any diagnosis		6 (18.2)	–		0 (0.0)	–
Questionnaires						
PTSD (CRIES-13)	37			6		
Intrusions		–	1.8 (3.1)		–	4.8 (5.8)
Avoidance		–	1.3 (3.3)		–	5.0 (7.7)
Hyperarousal		–	5.1 (4.9)		–	8.0 (7.1)
Total		1 (2.7)	8.1 (9.7)		1 (16.7)	17.8 (19.1)
Dissociation (CDC)	31	1 (3.2)	4.0 (3.4)	5	0 (0.0)	4.6 (2.9)
Sexual behaviour (CSBI)[b]	37			6		
DRSB		2 (5.4)	47.9 (9.1)		0 (0.0)	51.0 (7.7)
SASI		11 (29.7)	60.7 (5.2)		4 (66.7)	64.8 (5.7)
Total		2 (5.4)	50.2 (9.2)		1 (16.7)	54.8 (10.0)
Behaviour (CBCL)[b]	37			7		
Internalizing		9 (24.3)	52.4 (10.6)		3 (42.9)	57.7 (10.5)
Externalizing		6 (16.2)	51.8 (13.2)		0 (0.0)	55.0 (8.9)
Total problems		6 (16.2)	52.1 (11.5)		1 (14.3)	57.6 (10.3)
Attachment (AISI)	37			7		
Avoidant (A)		6 (16.2)	17.6 (7.0)		1 (14.3)	16.4 (5.9)
Ambivalent (C)		4 (10.8)	13.9 (5.4)**		2 (28.6)	18.6 (3.0)**
Disorganized (D)		5 (13.5)	12.3 (4.8)		1 (14.3)	12.6 (5.5)
Total		10 (27.0)	43.8 (12.1)		2 (28.6)	47.6 (7.2)

PTSD, post-traumatic stress disorder; CSA, child sexual abuse; OE, other event; MDD, major depressive disorder; ADHD, attention-deficit hyperactivity disorder; ODD, oppositional defiant disorder; CD, conduct disorder; SAD, separation anxiety disorder; GAD, generalized anxiety disorder; OCD, obsessive–compulsive disorder; CRIES, Children's Revised Impact of Event Scale; CDC, Child Dissociative Checklist; CSBI, Child Sexual Behavior Inventory; DRSB, Developmentally Related Sexual Behavior; SASI, Sexual Abuse Specific Items; CBCL, Child Behavior Checklist; AISI, Attachment Insecurity Screening Inventories; –, not applicable.
[a] Same respondent.
[b] CSBI and CBCL scores are gender- and age-standardized t scores. **$p < .01$.

3.2. Post-traumatic stress disorder

According to the diagnostic interviews, one child (3.3%) exhibited PTSD and two children (6.1%) exhibited subthreshold PTSD attributable to the sexual abuse. The former child also met the PTSD criteria due to other stressful life events (3.3%), and one further child (3.3%) had subthreshold PTSD due to other events. On the CRIES-13, one child (2.7%) scored in the clinical range indicative of PTSD, but this was not the same child who met the PTSD diagnostic criteria.

3.3. Sexual behaviour problems

Eleven children (29.7%) scored in the clinical range for sexual abuse–specific behaviour, defined as behaviours overstepping normative sexual behaviour, indicating a possible link to the CSA.

3.4. Attachment insecurity

Parents reported clinical levels of total attachment insecurity in 10 children (27.0%). Six children (16.2%) scored in the clinical range for avoidant attachment (type A), four (10.8%) for ambivalent attachment (type C), and five (13.5%) for disorganized attachment (type D). Categories of insecure attachment may overlap.

Viewing all outcome measures together, 39.4% of confirmed victims did not exhibit any clinically significant symptoms on the domains we examined. We found no significant differences between confirmed and suspected victims, except for ambivalent (type C) attachment insecurity, where suspected victims scored significantly higher than confirmed victims ($z = -2.64$, $p = .01$). Differences on the diagnostic interviews were not tested, because no psychiatric disorders were found in suspected victims. Among the confirmed victims ($n = 37$), boys showed significantly more internalizing problems and avoidant (type A) attachment style than girls ($t = 2.16$, $p = .04$ and $z = -1.995$, $p = .05$, respectively). When the seven suspected victims were added to the comparison ($n = 44$), those differences disappeared; instead, we found that girls scored significantly higher on sexual abuse–related behaviour ($z = -2.63$, $p = .01$). We found no significant differences in symptomatology between children based on severity of the abuse (mild $n = 21$ versus severe $n = 14$).

3.5. Psychopathology in parents

Forty parents reported on their own psychological well-being (Table 4). Scores from parents with both a confirmed and suspected victim were assigned to the confirmed group ($n = 2$). On the IES-R, seven parents (19.4%) from the confirmed group reported experiencing PTSD symptoms in the clinical range in reaction to the abuse of their child.

No differences between parents of confirmed and suspected victims were calculated because the composition of families varied greatly (i.e. one or two confirmed victims, one suspected victim, one confirmed and one suspected victim). Dividing that already small group of parents ($n = 41$) into smaller subgroups was not feasible. Mothers scored significantly higher than fathers did on the IES-R total scale ($z = -2.85$, $p = .00$), the intrusions scale ($z = -2.98$, $p = .00$), and the avoidance scale ($z = -2.43$, $p = .02$). No other significant differences emerged.

Spearman's rank correlation coefficients among severity of parental PTSD symptoms (IES-R total), emotional reactions (PERQ total), attachment problems in their intimate relationship (ECR total), and child's psychological functioning (CRIES-13 total, CDC, CSBI total, CBCL total problems, and AISI total) were computed (Table 5). For the confirmed victims, severity of parental PTSD symptoms was significantly correlated with child's PTSD symptoms ($r = .57$, $p = .00$), dissociative symptoms ($r = .60$, $p = .00$), behaviour problems ($r = .42$, $p = .01$), and attachment problems ($r = .47$, $p = .00$), but not with sexual behaviour problems ($r = .25$, $p = .13$). Children with parents experiencing more emotional reactions to the sexual abuse had significantly more symptoms of PTSD ($r = .51$, $p = .00$), dissociative symptoms ($r = .47$, $p = .01$), behaviour problems ($r = .36$, $p = .03$), and attachment problems ($r = .40$, $p = .01$), but not sexual behaviour problems ($r = .25$, $p = .14$). Adult attachment problems did significantly correlate with sexual behaviour problems ($r = .48$, $p = .00$), and with behaviour problems ($r = .38$, $p = .02$) and attachment problems ($r = .37$, $p = .03$), but not with symptoms of PTSD ($r = .26$, $p = .13$) and dissociation ($r = .35$, $p = .05$). When adding the seven suspected victims to the calculation, correlations between adult attachment problems and child PTSD symptoms ($r = .38$, $p = .01$) and dissociation ($r = .46$, $p = .01$) become significant. The other correlations are approximately the same (Table 6).

3.6. Psychological treatment for children

Taking the confirmed and suspected child victims together ($n = 40$), 30% received psychological treatment after the ASAC. Four children were left out of analysis since there was no information about psychological treatment available. One-quarter of the 33 confirmed child victims (24.2%) had received or were still receiving treatment. Six of them (18.2%) had trauma therapy (three completed, three still in therapy), one (3%) had completed treatment for specific phobia, and one (3%) had completed a non-specified form of treatment (case record

Table 4. Psychopathology in parents.

	Parents of confirmed victims (n = 36)[a]			Parents of suspected victims (n = 4)		
	n	n Clinical (%)	Mean (SD)	n	n Clinical (%)	Mean (SD)
PTSD (IES-R)	36			4		
Intrusions		–	6.2 (6.6)		–	8.3 (5.2)
Avoidance		–	4.6 (5.7)		–	5.0 (5.0)
Hyperarousal		–	3.0 (4.8)		–	6.0 (6.5)
Total		7 (19.4)	13.8 (15.2)		2 (50.0)	19.3 (15.2)
Emotional reactions (PERQ)	36[b]			4		
Distress		–	18.0 (7.0)		–	19.3 (8.4)
Shame		–	5.6 (2.9)		–	6.0 (4.4)
Guilt		–	7.0 (3.4)		–	9.8 (5.0)
Total		–	32.9 (13.6)		–	38.3 (17.8)
Adult attachment (ECR)	36			4		
Avoidance		1 (2.8)[c]	40.3 (16.3)		1 (25.0)[c]	56.8 (21.4)
Anxiety		3 (8.3)[c]	48.1 (17.3)		2 (50.0)[c]	71.0 (12.2)

PTSD, post-traumatic stress disorder; IES-R, Impact of Event Scale – Revised; PERQ, Parent Emotional Reaction Questionnaire; ECR, Experiences in Close Relationships; –, not applicable.
[a] Parents with one or more confirmed victimized children.
[b] Parents completed the PERQ twice if they had two children involved in the Amsterdam Sexual Abuse Case (n = 3).
[c] Based on preliminary Dutch norms received from H. J. Conradi.

Table 5. Correlations between parental psychopathology and child psychopathology in confirmed victims.

Parents	1	2	3	4	5	6	7	8
1. PTSD	–	.80**	.38**	.57**	.60**	.25	.42*	.47**
2. Emotional reactions		–	.22	.51**	.47**	.25	.36*	.40*
3. Adult attachment			–	.26	.35	.48**	.38*	.37*
Child								
4. PTSD				–	.62**	.20	.51**	.51**
5. Dissociation					–	.50**	.63**	.46**
6. Sexual behaviour						–	.49**	.29
7. Behaviour							–	.70**
8. Attachment								–

PTSD, post-traumatic stress disorder.
*p < .05 (two-tailed), **p < .01 (two-tailed).

Table 6. Correlations between parental psychopathology and child psychopathology in all victims.

Parents	1	2	3	4	5	6	7	8
1. PTSD	–	.79**	.41**	.56**	.59**	.22	.39**	.47**
2. Emotional reactions		–	.31*	.57**	.50**	.19	.37*	.41*
3. Adult attachment			–	.38*	.46**	.50**	.47**	.40**
Child								
4. PTSD				–	.65**	.18	.54**	.51**
5. Dissociation					–	.51**	.69**	.47**
6. Sexual behaviour						–	.55**	.35*
7. Behaviour							–	.66**
8. Attachment								–

PTSD, post-traumatic stress disorder.
*p < .05 (two-tailed), **p < .01 (two-tailed).

unavailable). Of the seven suspected victims, four children (57.1%) had received or were still receiving psychological treatment following the ASAC disclosure. One (14.3%) was still receiving trauma therapy, two (28.6%) had treatment for anxiety (one completed, the other continuing), and one (14.3%) had completed parent–child therapy.

3.7. Psychological treatment for parents

During the face-to-face interview, 37 parents reported on their own and their partner's psychological treatment. Four included parents of confirmed victims did not participate in the interviews. Taking all the interviewed parents and their partners together (n = 71), we found that 32 (45.1%) had needed psychological treatment after the ASAC. Treatments included trauma therapy (nine interviewees, 24.3%; four partners, 11.8%), parent therapy (11 interviewees, 29.7%; seven partners, 20.6%), parent–child therapy (three interviewees, 8.1%; two partners, 5.9%), relationship therapy (four interviewees, 10.8%; four partners, 11.8%), and other therapies such as hypnotherapy, group therapy, and general psychotherapy (four interviewees, 11.8%; one partner, 2.9%).

4. Discussion

The current study is the first to examine the psychological sequelae of extrafamilial CSA for children abused at a very young age and their parents in a unique sample from one of the largest substantiated child abuse cases worldwide.

Despite the severe level of CSA, only 3% of the children qualified for a full PTSD diagnosis 3 years after abuse disclosure. However, 30% exhibited clinically significant sexual behaviour problems, 24% internalizing problems, and 27% attachment insecurity; 18% were diagnosed with a psychiatric disorder (including PTSD) in a clinical diagnostic interview. More than one-third of the children were asymptomatic. For parents, we found that nearly 20% reported high levels of PTSD symptoms (mothers significantly more than fathers) and that parents suffered from feelings of guilt, shame, and anger about the sexual abuse of their child. Parents reported few attachment problems in their intimate relationships.

One salient influence on our findings may be that one-quarter of the confirmed child victims and 45% of all parents had received psychological treatment, including trauma therapy, beyond the extensive aftercare provided to all ASAC families by the Public Health Service Amsterdam and other local institutions. Besides showing the impact that the CSA must have had on the victims and their families, the treatment presumably also mitigated the negative sequelae. Without such interventions, we might have encountered higher rates of psychopathology. Reports on further follow-up measurements can look into the course of symptoms in relation to treatment.

As is commonly known, not all children develop symptoms in the aftermath of CSA. The literature indicates that a younger age at assessment is associated with fewer symptoms (Kendall-Tackett et al., 1993), while more severe abuse, a close relationship to the perpetrator, or the use of force is associated with more symptoms (Kendall-Tackett et al., 1993; Putnam, 2003). Between 21% and 49% of sexually abused children reportedly demonstrate few if any psychological sequelae when assessed with standard measures (Kendall-Tackett et al., 1993; Macdonald et al., 2012; Putnam, 2003) – rates comparable to our findings. Some proposed explanations are that asymptomatic children are more resilient or have coping styles that conceal their distress. Some researchers have posited that dysfunctional families and a general environment of maltreatment may be the main cause of negative CSA consequences (Bhandari, Winter, Messer, & Metcalfe, 2011; Conte & Schuerman, 1987). Our sample was comprised of children who had experienced exclusively extrafamilial CSA, and most were growing up in non-disruptive families with high socioeconomic status, intact family composition, and the likelihood of attachment problems comparable to that in Dutch community samples and lower than that reported for Dutch clinical samples: a meta-analysis by van IJzendoorn, Schuengel, and Bakermans-Kranenburg (1999) showed 15% avoidant attachment, 9% ambivalent attachment, and 15% disorganized attachment insecurity in the general population. Although comparison is limited because the meta-analysis mainly included studies using observational methods for measuring attachment insecurity, in clinical samples (children aged 2.5–5 and 6–12 years referred for possible attachment problems) rates of clinically significant insecure attachment, measured using the AISI questionnaire, were much higher: respectively, 24.9% and 41.1% for avoidant attachment, 30.9% and 26.6% for ambivalent attachment, 34.6% and 28.5% for disorganized attachment, and 60.8% and 66.5% for total attachment insecurity (unpublished data related to the publication by Spruit et al., 2018). Secure attachment and parental support have been shown to protect against consequences of stress (Beaudoin, Hébert, & Bernier, 2013; Domhardt et al., 2015). Limited-scale longitudinal studies have indicated, however, that 10–20% of asymptomatic children develop symptoms later, an outcome called the sleeper effect (Kendall-Tackett et al., 1993; Putnam, 2003; Trickett, Noll, & Putnam, 2011). Hence, ongoing follow-up assessment in our population is crucial.

It may seem remarkable that only 3% of children in our study were diagnosed with PTSD; studies in older children show 22–29% higher PTSD rates (Alisic et al., 2014; Kendall-Tackett et al., 1993). Most children were too young to have autobiographical memory of the sexual abuse. However, research suggests that preverbal trauma can be stored as (implicit) emotional memory, motor memory, and state memory that can be triggered and cause PTSD symptoms (Perry, 1999, 2000; Schore, 2001). Rates of PTSD in children exposed to trauma at preschool age are generally believed to be lower than in older children (Scheeringa, Zeanah, & Cohen, 2011). What very young children perceive as traumatic may differ owing to cognitive and perceptual immaturity. It could also be that PTSD criteria are not developmentally sensitive enough (Scheeringa et al., 2011), or are too limited to capture the complex range of difficulties experienced by children exposed to prolonged CSA at young ages (van der Kolk, 2009).

In line with the proposition that sexual behaviour problems are consistently the most specific and frequently observed sequelae of CSA (even in comparison with clinical samples without CSA) (Brilleslijper-

Kater, Friedrich, & Corwin, 2004; Friedrich et al., 2001; Kendall-Tackett et al., 1993; Putnam, 2003), sexual behaviour problems indeed constituted the highest percentage of clinically significant problems in our sample (30% of children). Finkelhor and Browne (1985) theorized that sexual behaviour problems might be seen as post-traumatic stress reactions in which CSA-related intrusions and hyperarousal spark sexual behaviour.

Confirmed victims in our sample seemed at greater risk of developing psychiatric disorders than children in the general population. A Norwegian study on psychiatric prevalence in the general preschoolers' population found a 7.1% rate for any psychiatric disorder using a diagnostic parent interview (Wichstrøm et al., 2012). Similarly, a population study of Brazilian 6-year-olds found a prevalence of 8% in children from high-income families (Petresco et al., 2014). To our knowledge, no comparable prevalence studies have been conducted in that age group in the Netherlands.

The present study also explored gender differences in outcomes, a topic about which the existing literature is inconclusive. Several studies have found that girls are more likely to show internalizing symptoms and boys externalizing symptoms, while other studies did not find gender differences in symptomatology (van Toledo & Seymour, 2013). Although we found that boys exhibited more internalizing problems and avoidant insecure attachment, our small sample sizes reduce the reliability of such differences, and the stability of the findings needs to be tested in a longitudinal approach. Similar and other reservations apply to differences emerging between confirmed and suspected victims. On the whole, both groups were impacted by the ASAC, but they may have been two separate groups of abused and non-abused children. If so, we could speculate that the stress experienced by the parents from the ASAC and from the uncertainty of CSA in their children may have had a negative impact on the non-abused children; it could also be that suspected victims, even if not abused themselves, did witness the abuse of other victims.

Although some disagreement exists (Browne & Finkelhor, 1986; Maikovich-Fong & Jaffee, 2010), the literature generally indicates that the type and frequency of abuse influence the degree of psychopathology (Kendall-Tackett et al., 1993). In our sample, we found no significant differences when looking at symptoms in relation to the severity of the abuse. A possible explanation could be that other factors may play a (more) crucial role in predicting psychopathology levels in children abused at a very young age, e.g. received care by children and parents and/or the degree of family support. Another explanation could be that the classification of abuse severity, based on research in older children, does not reflect the perception of infants and toddlers. Classifying the severity of the abuse could be considered subjective or over-simplifying, as there is a large variety in type, duration, frequency, and age of onset of the abuse. For example, some children experienced multiple forms of non-penetrative abuse numerous times while others experienced penetrative abuse on one occasion. In addition, the way in which children qualified their experience emotionally is impossible to determine. Fondling might seem less severe, but entailed masturbating the child. How mild or severe this is for the child is questionable.

Regarding the impact of CSA on parents, outcomes were consistent with our expectations. Our observed levels of PTSD symptoms are supported by a study on the parental impact of alleged sexual abuse in a daycare centre (Dyb, Holen, Steinberg, Rodriguez, & Pynoos, 2003) and a study on parental distress following disclosure of extrafamilial CSA (Davies, 1995). Parents in our study seemed to experience slightly more feelings of shame and fewer feelings of distress related to the sexual abuse of their child compared to parents whose children completed trauma-focused cognitive behavioural therapy for different forms of trauma (Holt, Cohen, & Mannarino, 2015). In earlier studies, parental PTSD symptoms and psychopathology were found to be related to child PTSD symptoms, (sexual) behaviour problems, and lower parent–child relationship quality (Elkovitch, Latzman, Hansen, & Flood, 2009; Levendosky & Graham-Bermann, 2000; van Ee, Kleber, & Mooren, 2012). We found similar associations, except for sexual behaviour problems. This underlines the importance of addressing parents' emotional reactions and the parent–child relationship in therapy, because parental psychological well-being and healthy interaction play such an important role in a child's recovery (Cohen & Mannarino, 1996; Holt et al., 2015). The lack of a relationship between parental symptoms and child sexual behaviour problems suggests that sexual abuse may lead to sexual behaviour problems regardless of whether parents are experiencing distress. This indicates that treatment for children who were sexually abused at a very young age should be based on a careful assessment of sexual behaviour problems and should not assume a link between those problems and parents' distress or difficulties in supporting their child's recovery.

One possible limitation in our study is that the children's ages restricted us to a single informant source, the parents; as the children grow older, we will be able to include their own self-reports. Our study may also represent a biased subgroup of families. They may have been less, or more, strongly impacted by the ASAC than families that declined participation. In addition, their study participation itself may have mitigated possible negative outcomes. The fact remains that our sample endured severe CSA. Our study is further limited by a relatively small sample size, the lack of a control group, and

the predominance of families of high socioeconomic status, so that caution is needed in interpreting and generalizing results.

Important strengths are that this is the first study to examine the sequelae of extrafamilial CSA in a group of children abused under similar circumstances and exclusively under the age of 4 years, with a large preponderance of boys. The abuse in this study population was firmly substantiated both by the perpetrator's confessions and by legal evidence from pornographic images. According to parental reports, none of the children had experienced another CSA event or another type of child maltreatment within the family, and only two children suffered from (subthreshold) PTSD in response to another traumatic event. This enabled us to focus on the specific sequelae of CSA for children abused at a very young age.

Our study is also one of the few to have looked into a broad spectrum of problems associated with CSA, including psychopathology in parents; it assessed these with multiple tools (questionnaires and interviews) and created a profile of sequelae. Most studies have used clinical samples or samples presumed at risk. A unique strength of the present study is that it includes mostly children for whom we know with certainty that they were severely abused, who did not disclose the CSA themselves, and who were not selected because they were experiencing problems. Such a sample is rarely available for a CSA study, and it may thus be a relatively close reflection of the entire CSA population. Future follow-up data in our longitudinal approach, including child self-report measures, should enable us to form conclusions about the causality and temporality of these findings.

Acknowledgements

The authors wish to thank Robert Lindeboom, from the Academic Medical Center, University of Amsterdam, who served as the statistical expert for the research. They also thank Maj R. Gigengack, Caroline S. Jonkman, and Marielle E. Abrahamse, as well as Els P. M. van Meijel, who did an excellent job in the assessments with the parents. Further thanks are due to the Amsterdam Police Department for providing the data needed for our study.

Disclosure statement

The authors declare no competing or potential conflicts of interest.

Funding

This work was supported by the Public Health Service of Amsterdam, the Academic Medical Center, the Ministry of Security and Justice, the Ministry of Health, Welfare and Sport, and Pro Juventute.

ORCID

Esther M. van Duin http://orcid.org/0000-0001-8298-5752
Eva Verlinden http://orcid.org/0000-0001-6194-3780
Thekla F. Vrolijk-Bosschaart http://orcid.org/0000-0002-7891-123X
Ramón J.L. Lindauer http://orcid.org/0000-0002-0387-1309

References

Achenbach, T. M., Dumenci, L., & Rescorla, L. A. (2003). DSM-oriented and empirically based approaches to constructing scales from the same item pools. *Journal of Clinical Child and Adolescent Psychology*, *32*(3), 328–340.

Alisic, E., Zalta, A. K., van Wesel, F., Larsen, S. E., Hafstad, G. S., Hassanpour, K., & Smid, G. E. (2014). Rates of post-traumatic stress disorder in trauma-exposed children and adolescents: Meta-analysis. *The British Journal of Psychiatry*, *204*(5), 335–340.

American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders: DSM-IV* (4th ed.). Washington, DC: Author.

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders: DSM-5* (5th ed.). Washington, DC: Author.

Andersen, S. L., Tomada, A., Vincow, E. S., Valente, E., Polcari, A., & Teicher, M. H. (2008). Preliminary evidence for sensitive periods in the effect of childhood sexual abuse on regional brain development. *The Journal of Neuropsychiatry and Clinical Neurosciences*, *20*(3), 292–301.

Beaudoin, G., Hébert, M., & Bernier, A. (2013). Contribution of attachment security to the prediction of internalizing and externalizing behavior problems in preschoolers victims of sexual abuse. *European Review of Applied Psychology*, *63*(3), 147–157.

Bhandari, S., Winter, D., Messer, D., & Metcalfe, C. (2011). Family characteristics and long-term effects of childhood sexual abuse. *British Journal of Clinical Psychology*, *50*(4), 435–451.

Brennan, K. A., Clark, C. L., & Shaver, P. R. (1998). Self-report measurement of adult attachment: An integrative overview. In J. A. Simpson & W. S. Rholes (Eds.), *Attachment theory and close relationships* (pp. 46–76). New York, NY: Guilford Press.

Brilleslijper-Kater, S. N., Friedrich, W. N., & Corwin, D. L. (2004). Sexual knowledge and emotional reaction as indicators of sexual abuse in young children: Theory and research challenges. *Child Abuse and Neglect*, *28*(10), 1007–1017.

Browne, A., & Finkelhor, D. (1986). Impact of child sexual abuse: A review of the research. *Psychological Bulletin*, *99*(1), 66–77.

Children and War Foundation. (1998). The Children's Revised Impact of Event Scale (13): CRIES-13. Retrieved from http://www.childrenandwar.org/measures

Cohen, J. A., & Mannarino, A. P. (1996). Factors that mediate treatment outcome of sexually abused preschool children. *Journal of the American Academy of Child and Adolescent Psychiatry*, *35*(10), 1402–1410.

Conte, J. R., & Schuerman, J. R. (1987). Factors associated with an increased impact of child sexual abuse. *Child Abuse and Neglect*, *11*(2), 201–211.

Cutajar, M. C., Mullen, P. E., Ogloff, J. R., Thomas, S. D., Wells, D. L., & Spataro, J. (2010). Psychopathology in a

large cohort of sexually abused children followed up to 43 years. *Child Abuse and Neglect*, *34*(11), 813–822.
Davies, M. G. (1995). Parental distress and ability to cope following disclosure of extra-familial sexual abuse. *Child Abuse and Neglect*, *19*(4), 399–408.
Domhardt, M., Münzer, A., Fegert, J. M., & Goldbeck, L. (2015). Resilience in survivors of child sexual abuse: A systematic review of the literature. *Trauma, Violence, & Abuse*, *16*(4), 476–493.
Dong, M., Anda, R. F., Dube, S. R., Giles, W. H., & Felitti, V. J. (2003). The relationship of exposure to childhood sexual abuse to other forms of abuse, neglect, and household dysfunction during childhood. *Child Abuse and Neglect*, *27*(6), 625–639.
Dyb, G., Holen, A., Steinberg, A. M., Rodriguez, N., & Pynoos, R. S. (2003). Alleged sexual abuse at a day care center: Impact on parents. *Child Abuse and Neglect*, *27*(8), 939–950.
Elkovitch, N., Latzman, R. D., Hansen, D. J., & Flood, M. F. (2009). Understanding child sexual behavior problems: A developmental psychopathology framework. *Clinical Psychology Review*, *29*(7), 586–598.
Finkelhor, D., & Browne, A. (1985). The traumatic impact of child sexual abuse: A conceptualization. *American Journal of Orthopsychiatry*, *55*(4), 530–541.
Fontanella, C., Harrington, D., & Zuravin, S. J. (2001). Gender differences in the characteristics and outcomes of sexually abused preschoolers. *Journal of Child Sexual Abuse*, *9*(2), 21–40.
Fresno, A., Spencer, R., Ramos, N., & Pierrehumbert, B. (2014). The effect of sexual abuse on children's attachment representations in Chile. *Journal of Child Sexual Abuse*, *23*(2), 128–145.
Friedrich, W. N. (1997). *Child sexual behavior inventory: Professional manual*. Odessa, FL: Psychological Assessment Resources.
Friedrich, W. N., Fisher, J. L., Dittner, C. A., Acton, R., Berliner, L., Butler, J., … Wright, J. (2001). Child sexual behavior inventory: Normative, psychiatric, and sexual abuse comparisons. *Child Maltreat*, *6*(1), 37–49.
Gigengack, M. R., van Meijel, E. P., Alisic, E., & Lindauer, R. J. L. (2015). Comparing three diagnostic algorithms of posttraumatic stress in young children exposed to accidental trauma: An exploratory study. *Child and Adolescent Psychiatry and Mental Health*, *9*, 14.
Holt, T., Cohen, J. A., & Mannarino, A. P. (2015). Factor structure of the parent emotional reaction questionnaire: Analysis and validation. *European Journal of Psychotraumatology*, *6*, 28733.
Irish, L., Kobayashi, I., & Delahanty, D. L. (2010). Long-term physical health consequences of childhood sexual abuse: A meta-analytic review. *Journal of Pediatric Psychology*, *35*(5), 450–461.
Kendall-Tackett, K. A., Williams, L. M., & Finkelhor, D. (1993). Impact of sexual abuse on children: A review and synthesis of recent empirical studies. *Psychological Bulletin*, *113*(1), 164.
Kilroy, S. J., Egan, J., Maliszewska, A., & Sarma, K. M. (2014). "Systemic trauma": The impact on parents whose children have experienced sexual abuse. *Journal of Child Sexual Abuse*, *23*(5), 481–503.
Klein, L. C., & Corwin, E. J. (2002). Seeing the unexpected: How sex differences in stress responses may provide a new perspective on the manifestation of psychiatric disorders. *Current Psychiatry Reports*, *4*(6), 441–448.
Levendosky, A. A., & Graham-Bermann, S. A. (2000). Behavioral observations of parenting in battered women. *Journal of Family Psychology*, *14*(1), 80–94.
Lindauer, R. J. L., Brilleslijper-Kater, S. N., Diehle, J., Verlinden, E., Teeuw, A. H., Middeldorp, C. M., … Verhoeff, A. (2014). The Amsterdam Sexual Abuse Case (ASAC)-study in day care centers: Longitudinal effects of sexual abuse on infants and very young children and their parents, and the consequences of the persistence of abusive images on the internet. *BMC Psychiatry*, *14*, 295.
Lupien, S. J., McEwen, B. S., Gunnar, M. R., & Heim, C. (2009). Effects of stress throughout the lifespan on the brain, behaviour and cognition. *Nature Reviews: Neuroscience*, *10*(6), 434–445.
Macdonald, G., Higgins, J. P., Ramchandani, P., Valentine, J. C., Bronger, L. P., Klein, P., … Taylor, M. (2012). Cognitive-behavioural interventions for children who have been sexually abused. *The Cochrane Database of Systematic Reviews*, (5), Cd001930. doi:10.1002/14651858.CD001930.pub3
Maikovich-Fong, A. K., & Jaffee, S. R. (2010). Sex differences in childhood sexual abuse characteristics and victims' emotional and behavioral problems: Findings from a national sample of youth. *Child Abuse and Neglect*, *34*(6), 429–437.
Mannarino, A. P., & Cohen, J. A. (1996). Family-related variables and psychological symptom formation in sexually abused girls. *Journal of Child Sexual Abuse*, *5*(1), 105–120.
McLaughlin, K. A., Koenen, K. C., Friedman, M. J., Ruscio, A. M., Karam, E. G., Shahly, V., … Alonso, J. (2015). Subthreshold posttraumatic stress disorder in the world health organization world mental health surveys. *Biological Psychiatry*, *77*(4), 375–384.
Perry, B. D. (1999). Memories of fear: how the brain stores and retrieves physiologic states, feelings, behaviors and thoughts from traumatic events. In J. Goodwin & R. Attias (Eds.), *Splintered reflections: Images of the body in trauma* (pp. 9–38). Washington, DC: Basic Books.
Perry, B. D. (2000). Sexual abuse of infants. *Trauma, Violence, & Abuse*, *1*(3), 294–296.
Petresco, S., Anselmi, L., Santos, I. S., Barros, A. J. D., Fleitlich-Bilyk, B., Barros, F. C., & Matijasevich, A. (2014). Prevalence and comorbidity of psychiatric disorders among 6-year-old children: 2004 Pelotas Birth Cohort. *Social Psychiatry and Psychiatric Epidemiology*, *49*(6), 975–983.
Polderman, N., Kellaert-Knoll, M., Storsbergen, H., Bongaerts, W., Corts, M., & de Pagter, J. (2008). *Manual of the attachment difficulties screening inventory 2–5 years (AISI 2–5 years)*. Haarlem, The Netherlands: Basic Trust.
Putnam, F. W. (2003). Ten-year research update review: Child sexual abuse. *Journal of the American Academy of Child and Adolescent Psychiatry*, *42*(3), 269–278.
Putnam, F. W., Helmers, K., & Trickett, P. K. (1993). Development, reliability, and validity of a child dissociation scale. *Child Abuse and Neglect*, *17*(6), 731–741.
Scheeringa, M. S., & Haslett, N. (2010). The reliability and criterion validity of the Diagnostic Infant and Preschool Assessment: A new diagnostic instrument for young children. *Child Psychiatry and Human Development*, *41*(3), 299–312.
Scheeringa, M. S., Zeanah, C. H., & Cohen, J. A. (2011). PTSD in children and adolescents: Toward an empirically based algorithma. *Depression and Anxiety*, *28*(9), 770–782.
Schore, A. N. (2001). The effects of early relational trauma on right brain development, affect regulation, and infant mental health. *Infant Mental Health Journal*, *22*(1-2), 201–269.
Silverman, W. K., & Albano, A. M. (1996). *Anxiety disorders interview schedule for DSM-IV: Parent interview schedule* (Vol. 1). Oxford, UK: Oxford University Press.

Spruit, A., Wissink, I. B., Noom, M. J., Colonnesi, C., Polderman, N., Willems, L., … Stams, G. J. J. M. (2018). Internal structure and reliability of the Attachment Insecurity Screening Inventory (AISI) for children age 6 to 12. *BMC Psychiatry*, *18*(1), 30.

Stoltenborgh, M., van IJzendoorn, M. H., Euser, E. M., & Bakermans-Kranenburg, M. J. (2011). A global perspective on child sexual abuse: Meta-analysis of prevalence around the world. *Child Maltreatment*, *16*(2), 79–101.

Trickett, P. K., Noll, J. G., & Putnam, F. W. (2011). The impact of sexual abuse on female development: Lessons from a multigenerational, longitudinal research study. *Development and Psychopathology*, *23*(2), 453–476.

van der Kolk, B. A. (2009). [Developmental trauma disorder: Towards a rational diagnosis for chronically traumatised children]. *Praxis Der Kinderpsychologie Und Kinderpsychiatrie*, *58*(8), 572–586.

van Ee, E., Kleber, R. J., & Mooren, T. (2012). War trauma lingers on: Associations between maternal posttraumatic stress disorder, parent–child interaction, and child development. *Infant Mental Health Journal*, *33*(5), 459–468.

van IJzendoorn, M. H., Schuengel, C., & Bakermans-Kranenburg, M. J. (1999). Disorganized attachment in early childhood: Meta-analysis of precursors, concomitants, and sequelae. *Development and Psychopathology*, *11*(2), 225–249.

van Toledo, A., & Seymour, F. (2013). Interventions for caregivers of children who disclose sexual abuse: A review. *Clinical Psychology Review*, *33*(6), 772–781.

Vrolijk-Bosschaart, T. F., Brilleslijper-Kater, S. N., Widdershoven, G. A. M., Teeuw, A. H., Verlinden, E., Voskes, Y., … Lindauer, R. J. L. (2017a). Physical symptoms in very young children assessed for sexual abuse: A mixed method analysis from the ASAC study. *European Journal of Pediatrics*, *176*(10), 1365–1374.

Vrolijk-Bosschaart, T. F., Brilleslijper-Kater, S. N., Widdershoven, G. A. M., Teeuw, A. H., Verlinden, E., Voskes, Y., … Lindauer, R. J. L. (2017b). Psychosocial symptoms in very young children assessed for sexual abuse: A qualitative analysis from the ASAC study. *Child Abuse and Neglect*, *73*(Supplement C), 8–23.

Weiss, D. S., & Marmar, C. R. (1997). The Impact Of Event Scale-Revised. In J. P. Wilson & T. M. Keane (Eds.), *Assessing psychological trauma and PTSD: A handbook for practitioners* (pp. 399–411). New York, NY: Guilford Press.

Wichstrøm, L., Berg-Nielsen, T. S., Angold, A., Egger, H. L., Solheim, E., & Sveen, T. H. (2012). Prevalence of psychiatric disorders in preschoolers. *Journal of Child Psychology and Psychiatry and Allied Disciplines*, *53*(6), 695–705.

Wissink, I. B., Colonnesi, C., Stams, G. J. J. M., Hoeve, M., Asscher, J. J., Noom, M. J., … Kellaert-Knol, M. G. (2016). Validity and reliability of the Attachment Insecurity Screening Inventory (AISI) 2–5 Years. *Child Indicators Research*, *9*(2), 533–550.