

## 'Caring for children who have experienced trauma' – an evaluation of a training for foster parents

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### ABSTRACT

**Background:** Foster children, mostly maltreated in their birth families, may be fostered by parents who know little about the impact of traumatic experiences.

**Objective:** The present study investigated whether the training *Caring for Children who Have Experienced Trauma* for foster parents can break the negative circle of traumatic stress. The hypothesis was that improvement in parents' knowledge on trauma and mind-mindedness would be associated with a reduction of their parenting stress, children's post-traumatic stress symptoms, and behaviour problems.

**Method:** Forty-eight foster parents ( $n_{\text{female}} = 35$ ) participated in a pre-test (T1), post-test (T2), and follow-up (T3) assessment. Questionnaires on knowledge on trauma, parenting stress, child post-traumatic stress symptoms, the child's behaviour, and the evaluation of the training were administered. Parents' mind-mindedness was assessed using the describe-your-child interview.

**Results:** Foster parents highly appreciated the training, their knowledge on child trauma increased at T2 and this growth persisted at T3. The parents who gained most knowledge experienced a small decrease in parenting stress at T2. Although the general mind-mindedness did not significantly change, foster parents' mind-mindedness with positive valence substantially increased at T2 and T3, while their mind-mindedness with neutral valence decreased. Foster parents' report on child PTSS declined at T3 compared to T2, but not compared to T1. No changes were found in children's behaviour as reported by the foster parents. The proportion of foster children receiving trauma-focused treatment increased at T2 and T3.

**Conclusion:** This study provides evidence that training in trauma-informed parenting can be effective in improving foster parents' knowledge on the impact of traumatic experiences and in increasing a positive mental representation of their foster child as well as in reducing children's post-traumatic symptoms.

### 'Cuidando de niños que han experimentado un trauma' – una evaluación de un entrenamiento para padres de acogida

**Antecedentes:** Los niños acogidos, en su mayoría maltratados en sus familias de origen, pueden ser criados por padres que sepan poco acerca del impacto de las experiencias traumáticas.

**Objetivo:** El presente estudio investigó si el entrenamiento 'Cuidando de Niños que han experimentado un Trauma' para padres de acogida puede romper el círculo negativo del estrés traumático. La hipótesis fue que el mejoramiento del conocimiento de los padres en el trauma y la mente mentalizante, disminuye el estrés de la paternidad, los síntomas post-traumáticos de los niños, y sus problemas conductuales.

**Método:** Cuarenta y ocho padres sustitutos ( $n$  de mujeres=35) participaron en pre-test (T1), post-test (T2) y seguimiento (T3). Se administraron cuestionarios sobre conocimientos en trauma, estrés de la paternidad, síntomas postraumáticos de los niños, problemas conductuales, comportamiento prosocial y de evaluación del entrenamiento. Se evaluó la mente mentalizante de los padres mediante una entrevista describe-a-tu-hijo.

**Resultados:** Los padres sustitutos apreciaron mucho el entrenamiento, su conocimiento en trauma infantil se incrementó en T2 y este crecimiento persistió en T3. Los padres que ganaron más conocimiento experimentaron una pequeña disminución en estrés de la paternidad en T2. Aunque la mente mentalizante en general no tuvo un cambio significativo, la mente mentalizante de los padres sustitutos con valencia positiva se incrementó sustancialmente en T2 y T3, mientras que su mente mentalizante con valencia neutral

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### PALABRAS CLAVE

Cuidado de acogida; taller; trauma; conocimiento; estrés parental; mente mentalizante; problemas conductuales; síntomas postraumáticos

### 关键词

寄养关怀; 工作坊; 创伤; 知识; 养育压力; 将心比心; 问题行为; 创伤后症状

### HIGHLIGHTS

- 48 Foster parents followed the training *Caring for Children who Have Experienced Trauma* and participated in the study.
- Their knowledge of trauma and positive mental representation of the foster child improved.
- Child's PTSS decreased.
- More children received treatment.

disminuyó. El reporte de los padres de acogida sobre los síntomas postraumáticos de los niños disminuyó en T3, comparado con T2 pero no respecto a T1. No se encontraron cambios en la conducta de los niños de acuerdo al reporte de los padres de acogida. La proporción de los niños que inició un tratamiento centrado en trauma se incrementó en T2 y T3.

**Conclusión:** Este estudio provee evidencia de que el entrenamiento puede ser efectivo en mejorar el conocimiento de los padres de acogida en el impacto de las experiencias traumáticas y en aumentar una representación mental positiva de sus hijos de acogida así como también en reducir los síntomas postraumáticos de los niños.

### “照料创伤儿童”——评估对寄养父母的培训

**背景:** 寄养儿童, 大多是在出生家庭中受到虐待, 寄养父母可能对其创伤经历的影响了解。

**目的:** 本研究调查了对寄养父母进行“照料创伤儿童”培训是否可以打破创伤应激的消极循环。假设增加父母对创伤和将心比心 (mind-mindedness) 的了解减少了育儿压力, 儿童创伤后应激症状及其行为问题。

**方法:** 48名寄养父母 (女性35名) 参加了前测 (T1), 后测 (T2) 和随访 (T3)。对有关创伤, 育儿压力, 儿童创伤后应激症状, 行为问题, 亲社会行为和培训评估进行问卷调查。通过描述孩子的访谈来评估父母的将心比心。

**结果:** 寄养父母高度赞赏这次培训, 他们对儿童创伤的知识在T2时有所增加, 并且这种增长在T3时一直持续。知识收获最多的父母在T2时育儿压力有所下降。尽管总体的将心比心没有显著变化, 但在T2和T3时, 养父母的正向的将心比心增加, 而中性的将心比心则下降。与T2相比, T3的F寄养父母关于儿童PTSS的报告有所下降, 但与T1相比没有下降。寄养父母的报告显示, 孩子的行为没有变化。开始接受聚焦创伤治疗的寄养儿童比例在T2和T3有所增加。

**结论:** 这项研究提供了证据, 表明该培训可以有效地提高寄养父母对创伤经历的影响的认识, 并增加其寄养孩子的积极心理表征, 以及减轻孩子的创伤后症状。

## 1. Evaluation of the training for foster parents ‘Caring for Children who Have Experienced Trauma’

About 23.000 children and adolescents in the Netherlands (Pleegzorg Nederland, 2018) and 437.500 in the United States (AFCARS Report, 2017) live in kinship or non-kinship foster families. The main reasons for foster care placements are domestic violence, parents’ mental health problems and substance abuse, inadequate parenting skills, and child abuse and neglect (Strijker, Knorth, & Knot-Dickscheit, 2008). Seventy percent of the foster children have experienced neglect and/or abuse by their birth parents (Greeson et al., 2012). Maltreatment leads to serious problems in children’s psychosocial functioning. It has shown to be associated with lower executive functioning, which negatively influences behaviour in daily life (Op den Kelder, Van den Akker, Geurts, Lindauer, & Overbeek, 2018). Experiences of childhood trauma also have a negative impact on the developing stress regulatory system of the brain, resulting in children’s difficulty to regulate their emotions (Burkholder, Koss, Hostinar, Johnson, & Gunnar, 2016; Kim & Cicchetti, 2010; Perry, Runyan, & Sturges, 1998). Anger rumination plays an important role in the psychopathological process that follows traumatic experiences (Glück, Knefel, & Lueger-Schuster, 2017). Poor emotion regulation frequently leads to externalizing problems, such as aggressive and violent behaviour, and to internalizing problems, such as anxiety and depression (Leenarts, Diehle, Doreleijers, Jansma, & Lindauer, 2013). Furthermore, one in four children who have

experienced interpersonal trauma develops post-traumatic stress disorder (Alisic et al., 2014).

Failure to detect post-traumatic stress symptoms (PTSS) may have a negative impact on children’s development (DeNigris, 2008). It is therefore imperative that foster parents be well informed about child trauma and its impact on the child’s behaviour. When parents have trauma-informed attributions of children’s behaviours, they are more likely to respond to children’s behaviour problems in a way that helps establish secure relationships (Kelly & Salmon, 2014; Sullivan, Murray, & Ake, 2016). A secure parent-child relationship is crucial for the development of emotion regulation and self-awareness, and for prevention of behaviour problems (Neece, Green, & Baker, 2012). To date, few studies have examined foster parents’ knowledge on trauma in children (Jay Miller et al., 2018).

There is a bi-directional association between children’s trauma and behaviour problems on the one hand and parenting stress on the other hand in regular families (Abidin, 1995; Neece et al., 2012) as well as in foster families (Goemans, Van Geel, & Vedder, 2015). Escalation of behaviour problems can lead to placement breakdown (Konijn et al., 2019). Placement breakdown, or foster care placement instability in a broader sense, may in turn increase the risk for problem behaviour, negative self-esteem and psychopathology in foster children, distrust in their guardians and other adults, and insecure child-caregiver attachment relationships (Rock, Michelson, Thomson, & Day, 2015; Strijker et al., 2008).

Insecure attachment has been shown to be a risk factor for both internalizing (Brumariu, 2015; Colonnese et al., 2011; Spruit et al., 2020) and externalizing behaviour problems in children (Madigan, Brumariu, Villani, Atkinson, & Lyons-Ruth, 2016). To develop a secure attachment relationship, caregivers' sensitivity to their child's needs is essential (Verhage et al., 2016). One of the main antecedents of both sensitive caregiving and child-caregiver attachment security is the caregiver's ability to represent the child as an independent mental agent (Bernier & Dozier, 2003), or as an individual with own thoughts, feelings, emotions, wishes, and longings, also known as parental 'mind-mindedness' (Meins, 1997).

Mind-mindedness, the parents' capacity to take the perspective of the child and to adequately interpret the child's signals (Meins et al., 2003), is crucial to provide an appropriate response, the core element of parental sensitivity, and thus building trust and establishing a secure attachment relationship (Bernier & Dozier, 2003; McMahan & Bernier, 2017; Meins, 1999). Mothers' mind-mindedness is found to be associated with both their sensitive behaviour and secure child-caregiver attachment relationships (see Zeegers, Colonnese, Stams, & Meins, 2017). Parental mind-mindedness has been shown to be related with children's behaviour problems and parenting stress (Colonnese, Zeegers, Majdandžić, van Steensel, & Bögels, 2019; Hughes, Aldercotte, & Foley, 2017; Walker, Wheatcroft, & Camic, 2011).

To enhance parental sensitivity and infant attachment security, early preventive interventions can be successful. Meta-analyses of such interventions showed that a moderate number of sessions and a clear-cut behavioural focus were moderately effective elements of attachment-based interventions targeting parental sensitivity and attachment security (Bakermans-Kranenburg, Van IJzendoorn, & Juffer, 2003; Facompré, Bernard, & Waters, 2018; Wright et al., 2017). Interventions with a focus on increasing parental attunement to young children in foster care, such as the Attachment Biobehavioral Catch-Up (ABC) intervention (Lind, Bernard, Ross, & Dozier, 2014; Sprang, 2009) and the parental sensitivity intervention (Juffer, Bakermans-Kranenburg, & Van IJzendoorn, 2005; Stams, Juffer, Van IJzendoorn, & Hoksbergen, 2001), share some key components. Both involve interactive sessions between therapists, parents, and children at home, focusing on understanding the child's signals and responding to the child's cues, with or without the use of video feedback (Kerr & Cossar, 2014; Wright et al., 2017). These type of interventions are relatively intensive and involve participation of foster children. This study investigated whether a less intensive intervention, such as a training curriculum for foster parents, also can enhance parental sensitivity

and the ability to mentalize. Some preliminary evidence for this has already been found in a study by Adkins, Luyten, and Fonagy (2018).

The National Child Traumatic Stress Network developed the training '*Caring for Children who Have Experienced Trauma*', aiming to increase (foster) parents' knowledge on child trauma and to improve parental self-efficacy (Coppens & Van Kregten, 2015; Sullivan et al., 2016). Understanding how trauma may affect children helps foster parents to make sense of their foster child's feelings and behaviours, to better understand their needs from the perspective of their child (i.e., mind-mindedness). This understanding improves the quality of the parent-child relationship and decreases parenting stress (Grillo & Lott, 2010). It is expected that trauma-informed foster carers may be better prepared to help their child cope with the negative effects of trauma, and to profit from indicated treatment for traumatic stress (Sullivan et al., 2016).

In the present study, we evaluated the foster parents' training *Caring for Children who Have Experienced Trauma* (Coppens & Van Kregten, 2012; Grillo & Lott, 2010). We investigated whether foster parents' knowledge on trauma and their level of mind-mindedness had increased, and parenting stress decreased after attending the training. Furthermore, we examined whether foster children's post-traumatic stress symptoms and behaviour problems had decreased after the training. Finally, we investigated whether more foster children received trauma-focused treatment after their foster parents had completed the training. Our hypothesis was that improvement of parents' knowledge on trauma and mind-mindedness would be associated with a reduction in their parenting stress, children's post-traumatic stress symptoms, and behaviour problems.

## 2. Method

### 2.1. Participants

From January 2015 to February 2017 ten groups of foster parents attended the training. Of the total number of 110 participants, 9 dropped out during the training, and 19 had no foster child in their home during their training attendance, which excluded them from the study. Of the 82 foster parents who were included at first, 48 (58%) completed the questionnaires and were interviewed at least at three of the four measurement times during the research period of one and a half year, and were included in the final sample. The response group consisted of 35 mothers (73%) and 13 fathers (27%) aged 35 to 65 years ( $M = 49.8$ ;  $SD = 7.3$ ) (Table 1). Almost three quarters (73%) of the respondents had completed higher education (higher professional

**Table 1.** Characteristics of the foster parents (N = 48).

Variables	N	%
Age (M: 49.8; SD: 7.30; range 35–65)		
35–45 years	13	27.1
45–55 years	22	45.8
55–65 years	13	27.1
Gender respondent		
Female	35	72.9
Male	13	27.1
Work Experience		
0–3 years	30	62.5
3–6 years	8	16.7
6–10 years	6	12.5
> 10 years	4	8.3
Highest completed education		
Primary education	1	2.1
Secondary education	12	25.0
Higher professional education	24	50.0
University	11	22.9
Type of foster care placement		
Treatment foster care	16	33.3
Long-term foster care	23	47.9
Partial Foster Care (only weekends)	8	16.7
Guardianship	1	2.1
Relation foster family – foster child		
Kin	13	27.1
No kin	35	72.9
Other children present in foster family	33	68.8
Biological children of foster parents present	23	48.9
Gender of the foster child		
Boy	25	52.1
Girl	23	47.9
Age foster children (M: 9.7; SD: 4.29; range 1.8–17.3)		
1–5 years	7	14.6
5–11 years	28	58.3
12–17 years	13	27.1

N = number; % = proportion of the total number of respondents; M = mean; SD = standard deviation; range = minimum to maximum value.

education or university). About two-thirds of the respondents (63%) had up to three years of experience in foster care, while 17% had three to six years, and 21% had more than six years of experience. The foster children (25 boys and 23 girls) were on average 9.7 years (varying from 1.8 to 17.3 years), staying in kinship (27%), and non-kinship (73%) foster care. In 69% of the foster families, other children were present in the home (49% were biological children).

## 2.2. Procedure

The training was brought to the foster parents' attention by the supervising organization for foster carers. Foster parents received information about the training curriculum in flyers, email news flashes, and digital newspapers for foster carers in the region. Every foster parent with a need for information

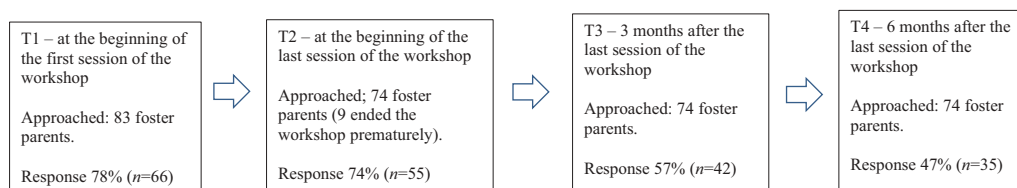
and/or support on the subject of childhood trauma could sign up for the training. The training was voluntary, although some foster parents were urged to attend the training by their supervising social worker because of their foster child's traumatic experiences. When foster parents signed up for the training, they received information on the purpose and intent of the research and were asked to participate. Ethical approval was granted from the Ethics Review Board of the University of Amsterdam [n. 2015-CDE-4293]. When the foster parents agreed to participate, they signed the informed consent.

Data were gathered at four measure moments during the research period: at the beginning of the first training session (T1 Pre-Test), at the end of the last session (T2 Post-test), and three (T3 Follow-up 1) and six-months follow-up (T4 Follow-up 2) (see Figure 1). All measuring instruments were used at the four time points, except for the evaluation form of the training, which was completed only at T2.

At T1 and T2, foster parents were invited to come to the training facility before the start of the training session, to take part in an interview and complete the questionnaires. T3 and T4 were conducted at the foster parents' homes.

## 2.3. The training

The trauma-informed parenting training 'Caring for Children who Have Experienced Trauma' has been developed by the National Child Traumatic Stress Network (Grillo & Lott, 2010) and was translated into Dutch by Coppens and Van Kregten (2012). Its curriculum contains eight modules covering topics aimed at improving the foster parents' knowledge and skills for providing adequate care for traumatized children: 1) Introductions, 2) Types of trauma, 3) Understanding the impact of trauma, 4) Building a safe place for the children, 5) Dealing with feelings and behaviours, 6) Connections and healing, 7) Becoming an advocate for your child and 8) Taking care of yourself (Coppens & Van Kregten, 2012; Grillo & Lott, 2010). The training was conducted by two trained youth care professionals in 8 weekly sessions of 2.5 h with groups of 10 to 12 foster parents.



**Figure 1.** Measurement times and response rates.



## 2.4. Instruments

### 2.4.1. Knowledge on trauma

The level of knowledge on trauma was assessed with a tool provided by the Dutch translators of the training, assessing the (six) knowledge goals of the programme on a 10-point scale from 'not at all' (0) to 'fully' achieved (10) (Coppens & Van Kregten, 2012). Respondents scored their level of knowledge on the six main topics of the training curriculum: (1) the impact of trauma on the child's development and behaviour, (2) appropriate reactions to challenging behaviour and emotions of their child, (3) helping their child to develop healthy relationships, (4) helping their child to recognize and develop strengths, (5) helping their child to develop adequate coping strategies, (6) self-care, seeking, and accepting help from others. The internal consistency of the questionnaire was excellent ( $\alpha = .94$ ).

### 2.4.2. Parenting Stress Questionnaire

Parenting stress was assessed by the Parenting Stress Questionnaire, Short Form, including 10 items measured on a 4-point scale from 1 (not true) to 4 (very true) (Vermulst, Kroes, Meyer, Nguyen, & Veerman, 2015). Examples of items are: 'I feel happy with my child', 'My child listens to me', 'I can calm my child down when he/she gets angry'. The correlation between the short and the full-length form has been shown to be high ( $r = .86$ ), and the consistency good ( $\alpha = .86$ ; Vermulst et al., 2015). Also in the present study the internal consistency of the questionnaire was good ( $\alpha = .82$ ).

### 2.4.3. Mind-mindedness interview

The level of mind-mindedness was assessed with an interview in which the parents were asked to provide a description of their child (Meins & Fernyhough, 2015). Verbatim responses were first transcribed and then analysed using the coding manual of Meins and Fernyhough (2015). Scores for the total mind-mindedness and for the valence (positive, neutral, negative) were computed as proportions of the total amount of comments foster parents made. A higher proportion indicated a higher level of mind-mindedness. Besides mind-related comments, comments could be behavioural (e.g. she is very active/energetic), general (e.g. he is sweet/loving/friendly) or physical (e.g. she is six years/beautiful/tall). Mind-related comments consisted of the following features: mental, wishes and preferences, interests and disinterests, and emotions. Mental features included any references to the mental life of the foster child related to thoughts, imaginations, intellect, knowledge, memory, and meta-cognition. Each mind-related expression was qualified with a positive, neutral, or negative emotional valence (Demers, Bernier, Tarabulsky, &

Provost, 2010). Comments on positive thoughts or mental states of the child, such as 'she has a positive state of mind', 'she has a strong personality' or 'he is a very smart boy', were coded as mind-related comments with a positive valence. Negative remarks on the mental state of the child such as 'he is not able to deal with feedback on his behavior' or 'she sees her peers as competition' were coded as mind-mindedness with a negative valence. All other comments were coded as remarks with a neutral valence. The proportion of positive, neutral, negative mental-related comments was calculated by dividing the sum of each by the total score of remarks. Four trained coders independently rated the interviews and 13% ( $n = 28$ ) of the interviews were randomly selected to calculate the inter-rater agreement amongst the coders. Inter-rater agreement on the proportion of mind-related comments per transcript was good (ICC = .87) and for the coding of the valence of positive, neutral, and negative comments inter-rater agreement was also substantial (ICCs = .86, .86, and .81, respectively).

### 2.4.4. Children's Revised Impact of Event Scale (CRIES-13)

The symptoms of the child's post-traumatic stress disorder (PTSD) were assessed with the parental version of the CRIES-13 (Verlinden, Olf, & Lindauer, 2005). The CRIES-13 is based on PTSD symptoms according to the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision (DSM-IV-TR; APA, 2000). Examples of the questions are: 'Do you have the impression that your child has to think about it often?' and 'Does your child suddenly see images of the event in her/his mind or have bad dreams?'. Answers were measured with scores on 4-points scale: 'not at all' (= 0), 'rarely' (=1), 'sometimes' (=3) and 'often' (= 5). The CRIES-13 contains 13 items and offers a total score (range 0–65) and three subscale scores on the symptom cluster intrusion (range 0–20), avoidance (range 0–20) and hyperarousal (range 0–25). Initial psychometric properties of the CRIES parental version showed good reliability and validity (Verlinden et al., 2014). In the present study, the internal consistency of the three scales and the total score were moderate (intrusion  $\alpha = .68$ , avoidance  $\alpha = .73$ ) to good (hyperarousal  $\alpha = .81$ , total score  $\alpha = .88$ ).

### 2.4.5. Strengths and Difficulties Questionnaire (SDQ)

To assess the children's behaviour problems, we used the subscales emotional symptoms, conduct problems and prosocial behaviour of the Strengths and Difficulties Questionnaire (SDQ; van Widenfelt, Goedhart, Treffers, & Goodman, 2003). Examples of items on these three scales are 'Many worries,

often seems worried', 'Often fights with other children or bullies them' and 'Considerate of other people's feelings'. Answers were measured on a 3-point scale: (0) not true, (1) somewhat true, and (2) certainly true. The internal consistency, test-retest stability, and parent-youth agreement of the various SDQ scales have been shown to be acceptable, and the concurrent validity of the SDQ was good (Muris, Meesters, & Van den Berg, 2003). In the present study, the internal consistency was moderate ( $\alpha = .78$  for conduct problems) to good ( $\alpha = .82$  for emotional symptoms and  $\alpha = .83$  for prosocial behaviour).

#### 2.4.6. Trauma-focused treatment

In the mind-mindedness interview, foster parents were asked to give a description of their child. Among other subjects, almost every foster parent addressed the traumatic adversities of their foster child and the treatment they did or did not receive. Four foster parents did not address this last subject, and in these cases, we conducted file analysis to obtain the information on the treatment history of the foster child. Qualitative analysis gave insight into the proportion of the 48 foster children receiving trauma-focused treatment per time point.

#### 2.4.7. Evaluation form of the training

The training evaluation form was composed by the Dutch translators of the training curriculum (Coppens & Van Kregten, 2012). Foster parent's satisfaction with every session of the training as well as general aspects such as the information prior to the first session, the expertise of the trainers, the practical applicability, guidance with the exercises and duration of the training, were evaluated on a scale from 1 (very dissatisfied) to 5 (very satisfied). In addition, foster parents answered four open questions (the sessions they appreciated the most and the least, and what they had missed in the training and suggestions for improvement). In the last session of the training, foster parents completed this evaluation form separately. The trainers collected the completed

forms in closed envelopes and subsequently transferred them to the researchers.

## 2.5. Statistic approach

At T4 38% of the data was missing. Therefore, T4 was excluded from the analyses. Without T4, missing data were 16% ( $\leq 10\%$  at T1;  $\leq 11\%$  at T2;  $\leq 19\%$  at T3) and the missing data were completely at random, Little's MCAR-test,  $\chi^2(453) = 450.33, p = .527$ . To avoid the loss of statistical power five imputed datasets were created using multiple imputations with the Fully Conditional Specification (FCS) method in SPSS.

Data were normally distributed (no violation of skewness and kurtosis), and no outliers were found. We calculated bivariate correlations between the study variables at T1. Next, we conducted a series of repeated measure ANCOVAs with three time points (T1, T2, and T3) to examine the results of the training. Post-hoc analyses were conducted by means of adjusted SIDAK comparisons.

## 3. Results

### 3.1. Preliminary analyses

Table 2 reports Pearson's correlations between the study variables at T1. Foster parents' total parental mind-mindedness, as well as the three valences of mind-mindedness and the number of children receiving trauma-focused treatment, were not significantly related to all other outcome variables. Parents' knowledge on trauma was significantly negatively correlated with parental stress and child emotional symptoms, and significantly positively associated with prosocial behaviour. Parenting stress was significantly negatively related to parental reported child prosocial behaviour, and significantly positively related to parental reported PTSS in the foster children. Finally, foster parents' report on prosocial behaviour in the children was significantly negatively related to their emotional and conduct problems. Table 3 (left side) shows the descriptive statistics of the study variables at T1, T2, and T3.

**Table 2.** Correlations of the study variables at T1 (Pearson correlation).

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1. Mind-mindedness (MM)										
2. MM positive valence	-									
3. MM neutral valence	-	.13								
4. MM negative valence	-	.21	.22							
5. Knowledge on trauma	-.03	.13	.02	-.15						
6. Parenting Stress	-.11	-.17	-.07	-.01	-.52**					
7. Post-traumatic stress symptoms	.19	.09	.16	.14	-.20	.35*				
8. Emotional problems	.03	-.14	-.06	.18	-.33*	.18	.42			
9. Conduct problems	-.06	-.21	-.11	.13	-.22	.30	.09	.12		
10. Prosocial behaviour	.08	.28	.18	-.19	.50**	-.38**	-.18	-.41*	-.35*	
11. Traumafocused treatment	-.18	-.04	-.06	-.13	.08	-.13	.09	.13	-.11	.11

Note. MM = Mind-mindedness; \*  $p < .05$ ; \*\*  $p < .01$ .

**Table 3.** Effects of the workshop: descriptives (Means and Standard Deviations), GLM Results (F-Values (Partial  $\eta^2$ ) and Sidak Comparisons ( $n = 48$ ).

Outcome variables	T1 M (SD)	T2 M (SD)	T3 M (SD)	GLM analyses T1-T3		
				Subcategories F ( $\eta_p^2$ )	Training F ( $\eta_p^2$ )	Interaction F ( $\eta_p^2$ )
Knowledge on trauma	6.33 (1.61) <sup>a, b</sup>	8.12 (.76) <sup>a</sup>	8.11 (.79) <sup>b</sup>	-	54.08 (.54)**	-
Parenting Stress (t-score)	55.95 (11.25)	58.41 (11.17)	57.77 (11.94)	-	1.59 (.03)	-
Mind-mindedness						
MM positive valence	7.32 (7.27) <sup>a, b, c</sup>	11.06 (9.59) <sup>a</sup>	13.54 (9.82) <sup>b</sup>	17.46 (.27)**	.95 (.02)	7.27 (.13)**
MM neutral valence	8.12 (6.14) <sup>c, d</sup>	6.12 (6.26)	3.99 (4.92) <sup>d</sup>			
MM negative valence	13.23 (9.82) <sup>c</sup>	13.46 (8.87)	10.36 (9.95)			
Post-traumatic stress symptoms (CRIES)	24.07 (13.77)	26.89 (13.16) <sup>b</sup>	22.30 (12.52) <sup>b</sup>	-	3.77 (.07)*	-
Behaviour Problems(SDQ)						
Emotional problems	4.31 (2.38)	4.10 (2.54)	3.81 (2.39)	2.45 (.05)	2.10 (.04)	.19 (.00)
Conduct problems	3.90 (2.29)	3.59 (2.19)	3.33 (2.33)			
Prosocial behaviour (SDQ-scale)	7.04 (2.55)	6.81 (2.29)	7.17 (2.33)		1.14 (.02)	-
Trauma-focused treatment (ratio)	.16 (.37) <sup>a</sup>	.20 (.41)	.32 (.48) <sup>a</sup>		5.48 (.13)*	-

MM = mind-mindedness; CRIES = Children's Revised Impact of Event Scale; SDQ = Strengths and Difficulties Questionnaire.

a, b, c, d indicate significant post hoc adjusted Sidak comparisons.

\*\* $p < .010$ . \* $p < .050$ .

Before running the main analyses, we checked whether the outcome variables were associated to foster parents and child characteristics and foster parents' degree of satisfaction with the training. Foster parents' gender (range Pearson's  $r = .01$ ,  $p = .970$  to  $r = .19$ ;  $p = .209$ ), age (range  $r = .01$ ,  $p = .947$  to  $r = .26$ ,  $p = .104$ ), their years of experience as a foster parent (range  $r = .01$ ,  $p = .932$  to  $r = .23$ ,  $p = .111$ ), type of foster care (kinship or non-kinship care; range  $r = .01$ ,  $p = .939$  to  $r = .27$ ,  $p = .081$ ), the presence of biological children in the foster family (range  $r = .00$ ,  $p = .996$  to  $r = .21$ ,  $p = .200$ ) were not significantly related to all outcome variables, as were gender (range  $r = .02$ ,  $p = .884$  to  $r = .24$ ,  $p = .102$ ) and age (range  $r = .02$ ,  $p = .914$  to  $r = .28$ ,  $p = .075$ ) of the foster child. Satisfaction with the training was also not significantly related to the characteristics of the foster parents and the children (range  $r = .07$ ,  $p = .677$  to  $r = .19$ ,  $p = .246$ ).

Furthermore, we examined the association between the degree of satisfaction with the training and the outcome variables at T1. Foster parental report on prosocial behaviour in the foster children was significantly positively related to the degree of satisfaction with the training ( $r = .38$ ,  $p = .019$ ). All

other outcome variables were not significantly associated (range  $r = .00$ ,  $p = .872$  to  $r = .25$ ,  $p = .127$ ).

### 3.2. Results of the training

Table 3 (right side) reports the results of the repeated measure ANOVAs for the study variables and the SIDAK post hoc comparisons. The foster parents' satisfaction with the training is reported in Table 4.

#### 3.2.1. Knowledge on trauma

The training significantly increased foster parents' knowledge on child trauma. Compared to T1, foster parents reported significantly more knowledge on the impact of trauma on the development and behaviour of their foster child at T2,  $\eta_p^2 = .54$ ,  $p < .010$ . This result persisted at T3. In addition, we found that foster parents with parenting stress lower than average reported significantly more accession of knowledge on trauma.

#### 3.2.2. Parenting stress

Foster parents did not report significant changes in their level of parenting stress on T2 and T3, compared to T1. However, when we repeated the analysis

**Table 4.** Evaluation of the workshop.

Evaluation Questions	N	Min-Max <sup>a</sup>	Mean (SD)
Module 1: Introductions	46	1-5	3.46 (1.05)
Module 2: Types of trauma	47	2-5	4.11 (.70)
Module 3: Understanding the impact of trauma	46	2-5	4.22 (.76)
Module 4: Building a safe place for your child	45	3-5	4.20 (.66)
Module 5: Dealing with feelings and behaviours	47	2-5	4.17 (.73)
Module 6: Connections and healing	47	2-5	4.04 (.81)
Module 7: Becoming an advocate for your child	41	1-5	4.10 (.89)
Module 8: Taking care of yourself	39	1-5	3.97 (.90)
Information prior to the workshop	48	3-5	3.87 (.70)
Practical applicability	48	2-5	3.98 (.79)
Length of the workshop	48	2-5	4.00 (.74)
Expertise of the supervisors	48	3-5	4.40 (.71)
Guidance with the exercises	48	2-5	4.21 (.82)
Total workshop	48	3-5	4.12 (.55)

<sup>a</sup>Scale from 1 (very dissatisfied) to 5 (very satisfied).

including parents' increase on knowledge on trauma from T1 to T2 (difference score) as a covariate, results showed that foster parents experienced a significant diminution of parenting stress from T1 to T2,  $F(2,92) = 8.59$ ,  $\eta_p^2 = .16$ ,  $p = .002$ , which persisted on T3.

### 3.2.3. Mind-mindedness

No significant change from T1 to T3 was found for parents' total score of mind-mindedness (see Table 2). However, we found a significant change in valence. On T1, foster parents reported significantly less positive than negative and neutral mind-minded remarks, and on T2 and T3 significantly more positive and negative than neutral remarks. In addition, a significant interaction effect was found,  $\eta_p^2 = .13$ ,  $p < .010$ . While positive mind-mindedness significantly increased from T1 to T2 and from T1 to T3, neutral mind-mindedness significantly decreased from T1 to T3. We found no significant differences in positive valence from T2 to T3 and in neutral valence from T1 to T2 and from T2 to T3. Negative mind-mindedness did not significantly change over time. When we repeated the analysis including parents' increase on knowledge on trauma from T1 to T3 (difference score) as a covariate, results showed that knowledge on trauma did not significantly change parental report on child PTSS,  $F(2, 92) = 3.52$ ,  $\eta_p^2 = .07$ ,  $p = .204$ .

### 3.2.4. Post-traumatic stress symptoms

According to the foster parents, post-traumatic stress symptoms in the foster child did not significantly change from T1 to T2 but significantly decreased from T2 to T3. This diminution of parental-reported child's PTSS was not significantly related to the increase of knowledge on trauma at T2 compared to T1,  $r = .13$ ,  $p = .361$ , and also not significantly associated to the improvement of positive mind-mindedness from T1 to T3,  $r = -.23$ ,  $p = .139$ , while controlling for the level of knowledge on trauma and the level of positive mind-mindedness at T1, respectively. Furthermore, the decrease of parental-reported child PTSS at T3 was not significantly related to whether or not the child received trauma-focused treatment at T3,  $r = .13$ ,  $p = .449$ .

### 3.2.5. Conduct problems, emotional symptoms, and prosocial behaviour in children

No significant main or interaction effects of the training were found on the foster children's behaviour problems (conduct, emotional) and on children's prosocial behaviour as reported by their foster parents.

### 3.2.6. Trauma-focused treatment

A significantly larger group of foster children received trauma-focused treatment at T3 (32%) compared to T1 (16%),  $F(2, 92) = 5.48$ ,  $\eta_p^2 = .13$ ,  $p = .012$ .

### 3.2.7. Evaluation of the training

Foster parents highly appreciated the training, indicated by a mean score of 4.12 on a scale from 1 (very dissatisfied) to 5 (very satisfied). The expertise of the trainers, the guidance with the exercises, and the training session on how child trauma affects the brain, feelings, and behaviour of the child were considered most valuable.

## 4. Discussion

This study evaluated the training *Caring for Children who Have Experienced Trauma* (Coppens & Van Kregten, 2012; Grillo & Lott, 2010). This training for foster parents aims to break the negative circle of traumatic stress, behaviour problems and parenting stress by improving foster parents' knowledge on trauma and their level of mind-mindedness. Foster parents highly appreciated the training and, as expected, we observed a substantial increase in parents' knowledge on trauma. In addition, parents who gained the most knowledge also experienced a small decrease in parenting stress. At the end of the training, foster parents' use of mind-related comments remained stable, but a clear change in the valence of mind-mindedness was observed. That is, after the training, parents' positive mind-related comments increased substantially, while the neutral mind-related comments decreased. The training did not lead to direct change in the foster children's behaviour as reported by the foster parents, although parental reported post-traumatic symptoms – not yet lowered at the end of the training – showed a small decline at follow-up. Finally, the proportion of foster children receiving trauma-focused treatment increased significantly, but remained modest.

Our finding that the foster parent's knowledge on trauma substantially increased, is in line with results from a study by Jay Miller et al. (2018), who detected a positive relation between the level of knowledge on child trauma and the number of attended training sessions by foster parents. Improvement of knowledge on the impact of traumatic stress in children probably leads to a better understanding of the possible mental health and behaviour problems as well as to a better competence to respond to that (Grillo & Lott, 2010). Especially the session addressing the impact of trauma on the child's brain and subsequently on the child's behaviour (module 3) seemed to be an elucidation for the foster parents, according to their evaluation. This result is in line with Gigengack, Hein, Lindeboom, and Lindauer (2017) and Sullivan et al. (2016), who reported an increase of knowledge on trauma and recognition of post-traumatic symptoms.

In contrast to Gigengack et al. (2017), parenting stress did not substantially decrease after the training.



However, the average rate of parenting stress (T1) in the present study was in the normal range and lower than the one reported by Gigengack, which was in the subclinical range (Vermulst et al., 2015). Furthermore, foster parents in our study reported less post-traumatic stress symptoms in their foster children (30 at baseline, compared to 34 in Gigengack et al., 2017) and relatively high scores on prosocial behaviour (score 7, whereas a score >6 is indicated as normal; van Widenfelt et al., 2003), which may indicate lesser problem behaviour in the foster children in our sample and may explain the relatively low scores on parenting stress and the lack of change. After all, prosocial behaviour has been reported to correlate negatively with parenting stress (Goemans et al., 2015; Neece et al., 2012).

Although foster parents' stress level before the training was lower than expected, foster parents who gained more knowledge on trauma did experience a small decrease in parenting stress, confirming that knowledge moderates parenting stress (Hess, Teti, & Hussey-Gardner, 2004). Psychological distress correlates negatively with parenting self-efficacy (Silver, Bauman, & Iryes, 1995). In addition to high self-efficacy, specific knowledge on the child's developmental challenges and the required parenting behaviour is a necessary condition for parental competency and successful parenting behaviour (Hess et al., 2004). Foster parents' understanding that their child's difficult behaviour may be a result of functional adaptations to dangerous environments or deficits in regulatory skills resulting from exposure to childhood trauma, may abate parenting strain (Sullivan et al., 2016), enhance their competence, and enable them to read their child's cues more appropriately (Hess et al., 2004).

Parents' general mind-mindedness did not significantly change after the training, indicating that the intervention did not directly affect their ability to mentalize about their foster child. This is in line with Adkins et al. (2018), who evaluated a short foster parents' training in reflective functioning. Although they found enhanced reflective functioning in the foster parents, only some were able to comprehend the mental states that underlie behaviour. However, we did find changes in parents' mind-mindedness valence over time. After the training, foster parents' mind-mindedness with positive valence substantially increased, while mind-mindedness with neutral valence equivalently decreased. We did not observe a significant change in negative mind-mindedness, which was the main focus of the mental comments, and which concerned mostly (mental) problems of the children and their struggle with their adverse childhood experiences. Foster parents' increased awareness of the impact of traumatic stress may

have attuned them more to their foster children's psychological strengths and positive mental states, albeit still keeping in mind the mental difficulties they encounter. Moreover, positive mind-mindedness has been linked to sensitivity (Demers et al., 2010), which indicates that the foster parents may be more likely to respond to their child's signals with warmth and positive affect (McMahon & Meins, 2012). The finding that general mind-mindedness did not change over time corroborates the idea that mind-mindedness is a stable characteristic of the caregiver-child relationship (Illingworth, MacLean, & Wiggs, 2016; Zeegers, Colonna, Noom, Polderman, & Stams, 2019), which as such is difficult to change with a short and relatively non-intrusive intervention. The valence, however, seems to vary more easily, probably as an effect of the increased knowledge on trauma.

Foster parents' report of child PTSS decreased a little three months after the last training session. This finding is in line with Gigengack et al. (2017), even though the decline in their study occurred directly after the last training session. Probably, the gained knowledge on trauma in foster parents at T2 improved the recognition of their child's PTSS, and so they reported a little but not significantly more symptoms. Perhaps, at that moment the gained knowledge on trauma could not yet be used for helping the child, but activated more sensitive parental behaviour (between T2 and T3) through which child's PTSS could diminish. Because the decrease of parental reported PTSS, the increase of the knowledge on trauma, the improvement of positive mind-mindedness, and the attendance of trauma-focused treatment were not significantly related, we assume that the less reported PTSS at T3 actually concerns a decline of post-traumatic complaints in the foster children.

We did not find any change in children's behaviour and emotional problems at follow-up. This could be explained by the later decline of PTSS, as PTSS may induce behaviour problems (DeNigris, 2008). Possibly, the last time point was too soon to detect the child's behavioural change.

Another potential explanation is that, however parent training is an effective intervention for modifying behaviour problems in children (Lundahl, Risser, & Lovejoy, 2006), the training focused more on improving parents' knowledge about the impact of trauma on the behaviour of children rather than on practical skills in actually changing children's behaviour. Also, it is plausible to suggest that for changing children's behaviour interactive sessions between therapists, parents, and children are required (Kerr & Cossar, 2014; Wright et al., 2017), such as employed in the Attachment Biobehavioral Catch-Up intervention

(Lind et al., 2014; Sprang, 2009) and the parental sensitivity intervention (Juffer et al., 2005; Stams et al., 2001).

As a result of the training, the proportion of foster children receiving trauma-focused treatment increased significantly from 16% to 32%. This is an important finding because most foster children had a history of abuse and neglect in their birth families (Greeson et al., 2012). While trauma-focussed treatment is indicated and available (Lindauer, 2015; Pollio & Deblinger, 2017), few children are successfully referred (Leenarts et al., 2013). Children may have doubts about what therapy can bring them, and/or they may fear the repetition of the experience and the emotions of the maltreatment (Greenwald, 2009). In the interviews almost all foster parents referred to their attempts to motivate their foster child to start or complete treatment using reasons and arguments provided to them by the training, apparently resulting in more children receiving treatment. This result is relevant because a strong relation between untreated post-traumatic stress symptoms and subsequent depression, anxiety disorders, drug or alcohol abuse, and suicide attempts has been established (De Venter, Demyttenaere, & Bruffaerts, 2013; Felitti et al., 1998).

#### 4.1. Limitations

A few limitations need to be mentioned. Firstly, this study had a small sample size caused by relatively high drop-out and missing data, resulting in low statistical power. This is not exceptional, however, according to a review of 71 randomized controlled trials with dropout rates of 20% or more in 18% of the trials (Bell, Kenward, Fairclough, & Horton, 2013). Secondly, this study had no control condition, so the findings must be interpreted with caution. Future studies should use an RCT design. Thirdly, the study contained only data reported by foster parents. Future research should include data from foster children themselves. Fourthly, as training attendance was voluntary for foster parents, self-selection may have occurred. As a result, our outcomes may not be generalized to all foster parents.

#### 5. Conclusion

Foster children, who may have been maltreated in their birth families, might be fostered by parents who know little about the impact of these adverse experiences. These children may show PTSS and related behaviour problems. For many children with traumatic stress, trauma-focused treatment is necessary to develop adequately into adulthood. However, few foster children commence and sustain this type of treatment. Increasing knowledge on the impact of trauma and the importance of trauma-

focused treatment, the opportunity to exchange experiences with other foster parents, and learn how to handle the sometimes baffling behaviour can contribute to a propagation of the number of children who benefit from available effective treatments. For the foster children, training of their foster parents was associated with a small decrease of parental reported PTSS, although diminishing their behaviour problems probably needs a more intensive and an interactive intervention.

Future research should aim at larger groups of foster parents to increase statistical power and generalizability of findings. Effectiveness should be tested in a randomized controlled trial in order to rule out alternative explanations for training effects that are associated with client characteristics. Also, data from the perspective of the foster children themselves would add value to the findings. Finally, future research should consider examining parental competence and self-efficacy alongside parenting stress, as these concepts prove to be highly interrelated (Hess et al., 2004). Nevertheless, our study showed preliminary evidence that this training in trauma-informed parenting may positively contribute to the quality of foster care.

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#### References

- Abidin, R. (1995). *The parenting stress index* (3rd ed.). Odessa, FL: Psychological Assessment Resources.
- Adkins, T., Luyten, P., & Fonagy, P. J. (2018). Development and preliminary evaluation of family minds: A mentalization-based psychoeducation program for foster parents. *Journal of Child and Family Studies*, 27(8), 2519–2532.
- AFCARS Report. (2017). *U.S. Department of health and human services, administration for children and families, administration on children, youth and families, children's bureau*. Retrieved from <https://www.acf.hhs.gov/cb>
- 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, 335–340.

- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed.). doi:10.1176/appi.books.9780890423349
- Bakermans-Kranenburg, M., Van IJzendoorn, M., & Juffer, F. (2003). Less is more: Meta-analyses of sensitivity and attachment interventions in early childhood. *Psychological Bulletin*, 129(2), 195–215.
- Bell, M. L., Kenward, M. G., Fairclough, D. L., & Horton, N. J. (2013). Differential dropout and bias in randomised controlled trials: When it matters and when it may not. *BMJ (Clinical Research Ed.)*, 346, e8668.
- Bernier, A., & Dozier, M. (2003). Bridging the attachment transmission gap: The role of maternal mind-mindedness. *International Journal of Behavioral Development*, 27(4), 355–365.
- Brumariu, L. E. (2015). Parent–child attachment and emotion regulation. In G. Bosmans & K. A. Kerns (Eds.), *Attachment in middle childhood: Theoretical advances and new directions in an emerging field. New directions for child and adolescent development* (Vol. 148, pp. 31–45). Wiley Periodicals Inc. doi:10.1002/cad.20098
- Burkholder, A. R., Koss, K. J., Hostinar, C. E., Johnson, A. E., & Gunnar, M. R. (2016). Early life stress: Effects on the regulation of anxiety expression in children and adolescents. *Social Development*, 25(4), 777–793.
- Colonnesi, C., Draijer, E. M., Stams, G. J. J. M., Van der Bruggen, C. O., Bögels, S. M., & Noom, M. J. (2011). The relation between attachment and child anxiety: A meta-analytic review. *Journal of Clinical Child and Adolescent Psychology*, 40(4), 630–645.
- Colonnesi, C., Zeegers, M. A., Majdandžić, M., van Steensel, F. J., & Bögels, S. M. (2019). Fathers' and mothers' early mind-mindedness predicts social competence and behavior problems in childhood. *Journal of Abnormal Child Psychology*, 47(9), 1421–1435.
- Coppens, L., & Van Kregten, C. (2012). *Zorgen voor getraumatiseerde kinderen: Een training voor opvoeders van kinderen met complex trauma* [Caring for children who have experienced trauma: A training for resource parents of complex traumatized children]. Houten: Bohn Stafleu Van Loghum.
- Coppens, L., & Van Kregten, C. (2015). *Zorgen voor getraumatiseerde kinderen: Een training voor opvoeders van kinderen met complex trauma* [Caring for children who have experienced trauma: A training for resource parents of complex traumatized children]. *Kind En Adolescent Praktijk*, 14(3), 4–11.
- De Venter, M., Demyttenaere, K., & Bruffaerts, R. (2013). The relationship between adverse childhood experiences and mental health in adulthood. A systematic literature review. [Article in Dutch]. *Tijdschrift Voor Psychiatrie* [Journal for Psychiatry], 55(4), 259–268.
- Demers, I., Bernier, A., Tarabulsy, G. M., & Provost, M. A. (2010). Maternal and child characteristics as antecedents of maternal mind-mindedness. *Infant Mental Health Journal*, 31(1), 94–112.
- DeNigris, P. N. (2008). Trauma in youth: Reactions and interventions. *Journal of Psychiatry & Law*, 36(2), 211–244.
- Facompré, C. R., Bernard, K., & Waters, T. E. (2018). Effectiveness of interventions in preventing disorganized attachment: A meta-analysis. *Development and Psychopathology*, 30(1), 1–11.
- Felitti, V. J., Anda, R. F., Nordenberg, D., Williamson, D. F., Spitz, A. M., Edwards, V., Koss, M. P., Marks, J. S. (1998). The relationship of adult health status to childhood abuse and household dysfunction. *American Journal of Preventive Medicine*, 14(4), 245–258.
- Gigengack, M. R., Hein, I. M., Lindeboom, R., & Lindauer, R. J. (2017). Increasing resource parents' sensitivity towards child posttraumatic stress symptoms: A descriptive study on a trauma-informed resource parent training. *Journal of Child & Adolescent Trauma*. doi:10.1007/s40653-017-0162-z
- Glück, T. M., Knefel, M., & Lueger-Schuster, B. (2017). A network analysis of anger, shame, proposed ICD-11 post-traumatic stress disorder, and different types of childhood trauma in foster care settings in a sample of adult survivors. *European Journal of Psychotraumatology*, 8(3), 1372543.
- Goemans, A., Van Geel, M., & Vedder, P. (2015). Over three decades of longitudinal research on the development of foster children: A meta-analysis. *Child Abuse & Neglect*, 42, 121–134.
- Greenwald, R. (2009). *Treating problem behaviors. A trauma-informed approach*. New York, NY: Routledge.
- Greeson, J., Briggs, E., Kisiel, C., Layne, C., Ake, G., Ko, S., ... Fairbank, J. (2012). Complex trauma and mental health in children and adolescents placed in foster care: Findings from the National Child Traumatic Stress Network. *Child Welfare*, 90(6), 91–108.
- Grillo, C. A., & Lott, D. A. (2010). *Caring for children who have experienced trauma: A workshop for resource parents*. Los Angeles, CA: National Center for Child Traumatic Stress.
- Hess, C. R., Teti, D. M., & Hussey-Gardner, B. (2004). Self-efficacy and parenting of high-risk infants: The moderating role of parent knowledge of infant development. *Journal of Applied Developmental Psychology*, 25(4), 423–437.
- Hughes, C., Aldercotte, A., & Foley, S. (2017). Maternal mind-mindedness provides a buffer for pre-adolescents at risk for disruptive behavior. *Journal of Abnormal Child Psychology*, 45, 225–235.
- Illingworth, G., MacLean, M., & Wiggs, L. (2016). Maternal mind-mindedness: Stability over time and consistency across relationships. *European Journal of Developmental Psychology*, 13(4), 488–503.
- Jay Miller, J., Niu, C., Sauer, C., Bowman, K., Segress, M., & Benner, K. (2018). Foster parents' knowledge of child trauma: An exploratory study. *Journal Of Aggression, Maltreatment & Trauma*, 27(5), 505–522.
- Juffer, F., Bakermans-Kranenburg, M. J., & Van IJzendoorn, M. H. (2005). The importance of parenting in the development of disorganized attachment: Evidence from a preventive intervention study in adoptive families. *Journal of Child Psychology and Psychiatry*, 46(3), 263–274.
- Kelly, W., & Salmon, K. (2014). Helping foster parents understand the foster child's perspective: A relational learning framework for foster care. *Clinical Child Psychology and Psychiatry*, 19(4), 535–547.
- Kerr, L., & Cossar, J. (2014). Attachment interventions with foster and adoptive parents: A systematic review. *Child Abuse Review*, 23, 426–439.
- Kim, J., & Cicchetti, D. (2010). Longitudinal pathways linking child maltreatment, emotion regulation, peer relations, and psychopathology. *Journal of Child Psychology and Psychiatry*, 51, 706–716.
- Konijn, C., Admiraal, S., Baart, F., Van Rooij, F., Stams, G. J., Lindauer, R. J., ... Assink, M. (2019). A meta-analytic review of risk factors for foster care placement instability. *Children and Youth Services Review*, 96, 483–499.



- Leenarts, L., Diehle, J., Doreleijers, T., Jansma, E., & Lindauer, R. (2013). Evidence-based treatments for children with trauma-related psychopathology as a result of childhood maltreatment: A systematic review. *European Child & Adolescent Psychiatry*, 22(5), 269–283.
- Lind, T., Bernard, K., Ross, E., & Dozier, M. (2014). Intervention effects on negative affect of CPS-referred children: Results of a randomized clinical trial. *Child Abuse & Neglect*, 38(9), 1459–1467.
- Lindauer, R. J. (2015). Trauma treatment for children and adolescents: Stabilizing or trauma-focused therapy? *European Journal of Psychotraumatology*, 6(1), 27630.
- Lundahl, B., Risser, H. J., & Lovejoy, M. C. (2006). A meta-analysis of parent training: Moderators and follow-up effects. *Clinical Psychology Review*, 26(1), 86–104.
- Madigan, S., Brumariu, L., Villani, V., Atkinson, L., & Lyons-Ruth, K. (2016). Representational and questionnaire measures of attachment: A meta-analysis of relations to child internalizing and externalizing problems. *Psychological Bulletin*, 142(4), 367–399.
- McMahon, C. A., & Bernier, A. (2017). Twenty years of research on parental mind-mindedness: Empirical findings, theoretical and methodological challenges, and new directions. *Developmental Review*, 46, 54–80.
- McMahon, C. A., & Meins, E. (2012). Mind-mindedness, parenting stress, and emotional availability in mothers of preschoolers. *Early Childhood Research Quarterly*, 27(2), 245–252.
- Meins, E. (1997). *Security of attachment and the social development of cognition*. Hove, UK: Psychology Press.
- Meins, E. (1999). Sensitivity, security and internal working models: Bridging the transmission gap. *Attachment & Human Development*, 1(3), 325–342.
- Meins, E., & Fernyhough, C. (2015). *Mind-mindedness coding manual, Version 2.2* (Unpublished manuscript). York, UK: University of York.
- Meins, E., Fernyhough, C., Wainwright, R., Clark-Carter, D., Das Gupta, M., Fradley, E., & Tuckey, M. (2003). Pathways to understanding mind: Construct validity and predictive validity of maternal mind-mindedness. *Child Development*, 74, 1194–1211.
- Muris, P., Meesters, C., & Van den Berg, F. (2003). The Strengths and Difficulties Questionnaire (SDQ). Further evidence for its reliability and validity in a community sample of Dutch children and adolescents. *European Child & Adolescent Psychiatry*, 12(1), 1–8.
- Neece, C. L., Green, S. A., & Baker, B. L. (2012). Parenting stress and child behavior problems: A transactional relationship across time. *American Journal on Intellectual and Developmental Disabilities*, 117(1), 48–66.
- Op den Kelder, R., Van den Akker, A. L., Geurts, H. M., Lindauer, R. J., & Overbeek, G. J. (2018). Executive functions in trauma-exposed youth: A meta-analysis. *European Journal of Psychotraumatology*, 9(1), 1450595.
- Perry, B. D., Runyan, D., & Sturges, C. (1998). Bonding and attachment in maltreated children: How abuse and neglect in childhood impact social and emotional development. *Caregiver Education Series*, 1(5), 1–12.
- Pleegzorg Nederland (*Foster Care Netherlands*). (2018). *Factsheet 2017*. Retrieved from <https://pleegzorg.nl/wp-content/uploads/2018/06/Factsheet-pleegzorg2017-DEF.pdf>
- Pollio, E., & Deblinger, E. (2017). Trauma-focused cognitive behavioural therapy for young children: Clinical considerations. *European Journal of Psychotraumatology*, 8(7), 1433929.
- Rock, S., Michelson, D., Thomson, S., & Day, C. (2015). Understanding foster placement instability for looked after children: A systematic review and narrative synthesis of quantitative and qualitative evidence. *British Journal of Social Work*, 45(1), 177–203.
- Silver, E. J., Bauman, L. J., & Iryes, H. T. (1995). Relationships of self-esteem and efficacy to psychological distress in mothers of children with chronic physical illness. *Health Psychology*, 14(4), 333–340.
- Sprang, G. (2009). The efficacy of a relational treatment for maltreated children and their families. *Child and Adolescent Mental Health*, 14(2), 81–88.
- Spruit, A., Goos, L., Weenink, N., Rodenburg, R., Niemeyer, H., Stams, G. J. J. M., & Colonna, C. (2020). The relation between attachment and depression in children and adolescents: A multilevel meta-analysis. *Clinical Child and Family Psychology Review*, 23(1), 54–69.
- Stams, G. J., Juffer, F., Van IJzendoorn, M. H., & Hoksbergen, R. A. C. (2001). Attachment-based intervention in adoptive families in infancy and children's development at age 7: Two follow-up studies. *British Journal of Developmental Psychology*, 19(2), 159–180.
- Strijker, J., Knorth, E. J., & Knot-Dickscheit, J. (2008). Placement history of foster children: A study of placement history and outcomes in long-term family foster care. *Child Welfare: Journal of Policy, Practice, and Program*, 87(5), 107–125.
- Sullivan, K. M., Murray, K. J., & Ake, G. S., 3rd. (2016). Trauma-informed care for children in the child welfare system: An initial evaluation of a trauma-informed parenting workshop. *Child Maltreatment*, 21(2), 147–155.
- van Widenfelt, B. M., Goedhart, A. W., Treffers, P. D. A., & Goodman, R. (2003). Dutch version of the strengths and difficulties questionnaire (SDQ). *European Child & Adolescent Psychiatry*, 12(6), 281–289.
- Verhage, M., Schuengel, C., Madigan, S., Pasco Fearon, R., Oosterman, M., Cassibba, R., ... Van IJzendoorn, M. H. (2016). Narrowing the transmission gap: A synthesis of three decades of research on intergenerational transmission of attachment. *Psychological Bulletin*, 142(4), 337–366.
- Verlinden, E., Olf, M., & Lindauer, R. (2005). *Dutch version of the Children's Revised Impact of Event Scale (CRIES-13), parent version*. Children and War Foundation. [https://www.childrenandwar.org/wp-content/uploads/2019/06/cries\\_13\\_UK.pdf](https://www.childrenandwar.org/wp-content/uploads/2019/06/cries_13_UK.pdf)
- Verlinden, E., Van Laar, Y., Van Meijel, E., Opmeer, B., Beer, R., de Roos, C., ... Lindauer, R. (2014). A parental tool to screen for posttraumatic stress in children: First psychometric results. *Journal of Traumatic Stress*, 27(4), 492–495.
- Vermulst, A., Kroes, G., Meyer, R., Nguyen, L., & Veerman, J. W. (2015). *Handleiding OBVL* [Guideline parenting stress questionnaire]. Nijmegen: Praktikon.
- Walker, T. M., Wheatcroft, R., & Camic, P. M. (2011). Mind-mindedness in parents of pre-schoolers: A comparison between clinical and community samples. *Clinical Child Psychology and Psychiatry*, 1–18. doi:10.1177/1359104511409142
- Wright, B., Hackney, L., Hughes, E., Barry, M., Glaser, D., Prior, V., Allgar, V., Marshall, D., Barrow, J., Kirby, N., Garside, M., Kaushal, P., Perry, A., McMillan, D. (2017). Decreasing rates of disorganised attachment in infants and young children, who are at risk of developing, or



- who already have disorganised attachment. A systematic review and meta-analysis of early parenting interventions. *Plos One*, 12(7), e0180858. doi:[10.1371/journal.pone.0180858](https://doi.org/10.1371/journal.pone.0180858)
- Zeegers, M., Colonnesi, C., Noom, M., Polderman, N., & Stams, G. J. (2019). Remediating child attachment insecurity: Evaluating the basic trust intervention in adoptive families. *Research on Social Work Practice*, 1–14. doi:[10.1177/1049731519863106](https://doi.org/10.1177/1049731519863106)
- Zeegers, M., Colonnesi, C., Stams, G. J., & Meins, E. (2017). Mind matters: A meta-analysis on parental mentalization and sensitivity as predictors of infant–parent attachment. *Psychological Bulletin*, 143(12), 1245–1272.