Development of atypical parental behavior during an inpatient family preservation intervention program

Anne-Fleur W. K. Vischer1 | Wendy J. Post1 | Hans Grietens1 | Erik J. Knorth1 | Elisa Bronfman2

1Department of Special Needs Education and Youth Care, Faculty of Behavioural and Social Sciences, University of Groningen, The Netherlands
2Behavioral Medicine and General Outpatient Service, Boston Children’s Hospital, Boston, Massachusetts

Correspondence Anne-Fleur Vischer, Department of Special Needs Education and Youth Care, Faculty of Behavioural and Social Sciences, University of Groningen, Grote Rozenstraat 38, 9712 TJ Groningen, The Netherlands. Email: a.w.k.vischer@rug.nl

Funding information Stichting Kinderpostzegels Nederland and Fonds NutsOhra Number: 6456945 and 1103-072

ABSTRACT
Since failed reunification is a detrimental outcome for children, particularly infants and toddlers, the aim of this study was to gain insight into support to families in multiple-problem situations to help them achieve sustainable good-enough parenting. Therefore, we examined outcomes of an assessment-based inpatient family preservation program. We prepared a thorough target-population description (n = 70) using file analysis. Next, we examined atypical parental behavior during the intervention using the Atypical Maternal Behavior Instrument for Assessment and Classification with a repeated measures design (n = 30). The family files revealed a great number of issues at the family, parent, and child levels, such as practical matters, problems in parent functioning and between parents, and difficulties in the broader environment.

We found a significant decline in three dimensions of atypical parental behavior over time. This program has great potential in supporting vulnerable families in their pursuit of family preservation.

KEYWORDS
child protection, disorganized attachment, family preservation services, parenting assessment, program evaluation

RESUMEN
Debido a que un fracasado intento de reunificación es un resultado perjudicial para los niños, particularmente los infantes y niños muy pequeñitos, la meta de este estudio fue adquirir percepciones en cuanto al apoyo a familias en situaciones de problemas múltiples para ayudarles a lograr una crianza sostenible suficientemente buena. Examinamos, por tanto, resultados de un programa de paciente interno para la preservación de la familia (FP) basado en evaluación. Preparamos una detallada descripción de la población de enfoque (n = 70) usando análisis de registros. Examinamos conductas atípicas de los padres durante la intervención usando el Instrumento de Conducta Materna Atípica para Evaluación y Clasificación (AMBIANCE) con un diseño de medidas repetidas (n = 30). Los registros familiares revelaron un gran número de asuntos al nivel de la familia, los padres y los niños, tales como asuntos prácticos, problemas en el funcionamiento de los padres y entre padres,
y dificultades en el más amplio entorno. Encontramos una baja significativa en tres dimensiones de conducta atípica de los padres a lo largo del tiempo. El programa FP tiene un enorme potencial para apoyar a familias vulnerables en su esfuerzo por preservar la familia.

PALABRAS CLAVES
servicios de preservación de familia, evaluación de crianza, protección del niño, afectividad desorganizada, evaluación de programa

RÉSUMÉ
Puisque la réunification échouée est un résultat détrimentaire pour les enfants, en particulier les nourrissons et les jeunes enfants, le but de cette étude était d’explorer le soutien aux familles dans des situations avec de nombreux problèmes afin de les aider à atteindre un parentage durable et suffisant. Nous avons donc examiné les résultats d’un programme de maintien familial (abrégé ici MF en français) fondé sur l’évaluation et en hospitalisation. Nous avons préparé une description approfondie de la population cible (n = 70) en utilisant une analyse par dossier. Nous avons examiné le comportement parental atypique durant l’intervention en utilisant AMBIANCE, l’instrument de comportement maternel atypique pour l’évaluation et la classification avec une conception à mesures répétées (n = 30). Les dossiers familiaux ont révélé un grand nombre de problèmes au niveau de la famille, du parent et de l’enfant, tels que des problèmes pratiques, des problèmes dans le fonctionnement du parent ou entre les parents, et des difficultés dans le milieu plus large. Nous avons trouvé une baisse importante sur trois dimensions du comportement atypique parental au fil du temps. Le programme MF offre de grandes possibilités dans le soutien aux familles vulnérables dans leur quête de maintien familial.

MOTS CLÉS
Service de maintien de la famille, évaluation du parentage, protection de l’enfant, attachement désorganisé, évaluation de programme

ZUSAMMENFASSUNG
Da eine gescheiterte Wiedervereinigung ein nachteiliges Ergebnis für Kinder ist, insbesondere für Säuglinge und Kleinkinder, bestand das Ziel dieser Studie darin, Einblicke in die Unterstützung von Familien in Situationen mit multipler Problemlage zu gewinnen. Ziel war es, dabei zu helfen, eine nachhaltig gute Erziehung zu erreichen. Wir untersuchten daher die Ergebnisse eines bewertungsbasierten stationären Programms zur Erhaltung von Familien. Anhand von Aktenanalysen wurde eine ausführliche Beschreibung der Zielpopulation (n = 70) erstellt. Mithilfe des Instruments zur Bewertung und Klassifizierung von atypischem mütterlichem Verhalten (Atypical Maternal Behavior Instrument for Assessment and Classification; AMBIANCE) wurde durch ein Messwiederholungsdesign (n = 30) atypisches elterliches Verhalten während der Intervention erhoben. Die Familienakten enthielten eine große Anzahl von Problemen auf Familien-, Eltern- und Kinderebene, z. B. hinsichtlich praktischer Fragen, Probleme in der Elternfunktion und zwischen den Eltern sowie Schwierigkeiten im weiteren Umfeld. Wir fanden im Laufe der Zeit einen signifikanten Rückgang des atypischen elterlichen Verhaltens in drei Dimensionen. Das Programm zur Erhaltung von Familien hat ein großes Potenzial was die Unterstützung vulnerabler Familien bei ihrem Streben nach Familienerhaltung angeht.

STICHWÖRTER
Leistungen zur Erhaltung von Familien, Beurteilung der Elternkompetenz, Kindesschutz, desorganisierte Bindung, Programmevaluation

抄録
再統合の失敗は、子ども、特に乳幼児にとって有害な結果となることから、本研究での目的は、複数の問題を抱えた家族が、持続可能な子育てができるよう、彼らへの支援に洞察をえることであった。そのため、私たちは、評価ベースの入院患者の家族維持 (FP) プログラムの結果を調査した。ファイル分析を使っ
In accordance with an international movement underscoring the importance of reunification of child and birth family (Reunification of child and birth family is considered the most desirable outcome in the child protection field (Lindsey, 1994), this measure is intended to be temporary. Reiunification of child and birth family is considered the most favorable outcome in the context of permanency planning (McCroskey, 2001; Tilbury & Osmond, 2006). Hence, the purpose of an out-of-home placement is to support families in accomplishing necessary changes in the family situation to enable the safe return of the child. This type of support is typically provided by child welfare services and often referred to as family preservation (FP) or reunification services. Prevention of out-of-home placement is the initial goal of FP services (Tully, 2008). When reunification is the outcome of permanency planning, ideally children return to a stable and safe home environment, resulting in permanency with their birth family (Kimberlin, Anthony, & Austin, 2009). Unfortunately, this is not always realistic. This is problematic, as failed reunification is detrimental to children, particularly infants and toddlers, since the disruption impacts their development of attachment security (Ainsworth, Blehar, Waters,
1.1 Failed reunification

Rates of reentry into care after reunification vary considerably (Festinger, 1996; Lee, Jonson-Reid, & Drake, 2012; McGrath-Lone, Dearden, Harron, Nasim, & Gilbert, 2017; Taussig, Clyman, & Landsverk, 2001). Research has revealed high percentages of failed reunifications, indicating undesirable outcomes of care provided by FP-related services. Failed reunification might be associated with poor practice, such as lack of sufficient assessment and service provision during and after the reunification process (Wilkins & Farmer, 2015). Therefore, it seems imperative to develop a thorough understanding of effective strategies for supporting families to achieve sustainable good-enough parenting. To this end, we evaluated a unique Dutch FP intervention program (described later). In this study, we described good-enough parenting as: “The parenting situation is considered ‘good enough’ when consensus is reached between the team of the Expertise Center, the case manager, and the parents that the quality of parenting (as operationalized by the Expertise Center) has been improved during the intervention program in such a way that the risk for adverse development of the child, which has led to the (planned) out-of-home placement, is eliminated” (Vischer, 2013, p. 7).

The severity of issues related to failed reunification can be explained from an attachment theoretical perspective. The experience of multiple placements, resulting in changing caregivers and re-abuse after reunification (Lutman & Farmer, 2013) may be especially harmful to infants and toddlers, given their rapid and critical physical, affective, and cognitive development (Chinitz, Guzman, Amstutz, Kohchi, & Alkon, 2017; Frame, Berrick, & Brodowski, 2000; Harden, Buhler, & Parra, 2016). An extensive body of research built on attachment theory (Bowlby, 1982) has confirmed the association between the quality of attachment of children with their primary caregivers and developmental outcomes (e.g., Bernier, Beauchamp, Carlson, & Lalonde, 2015; Cyr, Euser, Bakermans-Kranenburg, & van IJzendoorn, 2010; Thompson, 1999). Attachment theory indicates that the first 5 years of life is a key period in which young children form secure attachments, underpinning the importance of continuous adequate care without disruption in their attachment figures. For this reason, it is vital to provide children the opportunity to form a secure attachment early in life.

Accordingly, within a limited time frame after an out-of-home placement or in cases where a child is being cared for by birth parents experiencing severe parenting problems, an informed decision needs to be made on where the young child should stay on a permanent basis (Vischer, Grietens, Knorh, & Mulder, 2017). In the context of permanency planning, this process is referred to as the assessment of parenting. An important element in the assessment process is the capacity to change; that is, the ability of parents to make significant behavioral changes, in some cases following an out-of-home placement of their child. To demonstrate this capacity to change, parents need to be provided effective support aimed at improving the quality of their parenting to promote secure attachment (Harnett, 2007).

1.2 Disorganized attachment

Related to attachment theory, strategies aiming to preserve families have been developed specifically targeting the improvement of parental sensitivity behavior, particularly parents’ ability to accurately perceive their child’s signals and respond in a prompt and adequate manner to fulfill the child’s needs (Tully, 2008). Indeed, care disturbed in the first years of life due to insensitive parental behavior has been identified as a risk factor for the development of disorganized attachment strategies (Cyr et al., 2010; Lyons-Ruth, Bronfman, & Parsons, 1999; Madigan et al., 2006). When a caregiver fails to serve as a source of protection, the infant does not develop a consistent strategy to cope with stress (Lyons-Ruth et al., 1999; Main & Solomon, 1986). Disorganized attachment is more closely associated with psychopathological outcomes later in life than are other types of attachment that encompass a strategy (i.e., secure, avoidant, or resistant attachment) (e.g., Carlson, 1998; Fearon, Bakermans-Kranenburg, van IJzendoorn, Lapsely, & Roisman, 2010; Lyons-Ruth & Jacobvitz, 1999; van IJzendoorn, Schuengel, & Bakermans-Kranenburg, 1999).

In the United States, researchers have identified atypical parental behaviors that seem to be displayed significantly more often by mothers of children who lacked an organized attachment strategy. Related to this, they developed the Atypical Maternal Behavior Instrument for Assessment and Classification (AMBIANCE) to assess the quality of caregiver behavior (Bronfman, Parsons, & Lyons-Ruth, 1992; Lyons-Ruth et al., 1999). Benoit, Madigan, Lecce, Shea, and Goldberg (2001) demonstrated this instrument’s applicability in clinical research on intervention effects; it proved highly sensitive to differences in caregiving behaviors between two groups of parents who were experiencing problems in feeding their infants. Based on their results, these authors cautiously concluded that the instrument could make a positive contribution to treatments aimed at improving parental sensitivity by reducing atypical parental behaviors related to disorganized attachment.

Another study using the AMBIANCE examined the effect of a home-visitation-based, mixed-intervention model including enhancement of sensitive parenting for parents from pregnancy through the child’s second year of life (Tereno et al., 2017). Findings have indicated a significant
reduction in infant disorganization and disrupted maternal communication, as compared to a control group. Furthermore, the reductions in infant disorganization were attributed in part to declines in disrupted maternal communication.

The results of a study by Forbes, Evans, Moran, and Pederson (2007) on changes in atypical maternal behavior and attachment disorganization in children from 12 to 24 months underscore the conclusions of the aforementioned studies in which such changes were identified. They reasoned that unlike patterns of adequate parent–child interactions, which appear to be stable and thus natural, self-sustaining systems, “… a substantially atypical, disrupted interaction within a disorganized relationship may be more susceptible to change and, thus, intervention aimed at improving the relationship” (p. 966). In other words, atypical parental behaviors are not trait-like features, which is a promising conclusion for interventions aiming to promote adequate parental behavior.

In conclusion, failed reunification is highly undesirable. Since FP services play a key role in supporting parents toward adequate parenting and reunification success, we need to know “what works” to prevent failed reunification among children and families. This topic has been studied broadly, for instance, by examining factors associated with failed reunification (for an overview see Shaw, 2006) and with effect studies on interventions targeting the quality of parenting (Landers et al., 2018; Tully, 2008). However, our understanding remains insufficient to prevent many children from further harm due to dysfunctional parenting and multiple placements into and out of care. Furthermore, Landers et al. (2018) argued that we also need to understand what is at work for specific populations. Moreover, we need to look beyond prevention of out-of-home placement as the sole indicator of FP program success (Cash & Berry, 2003).

1.3 | Aim and research questions

To gain insight into support for parents of young children toward FP, we evaluated an FP intervention program run by the Expertise Center for Treatment and Assessment of Parenting and Psychiatry² (henceforth, EC) in the Netherlands. The central aim of our study was to increase knowledge regarding the characteristics of the outlined target population, including (changes in) the ability to parent; this with the intention to (a) contribute to improvement of the FP program by further tailoring it to the needs of the families referred and (b) evaluate the impact of the intervention program on the ability to parent. We operationalized ability to parent by examining atypical parental behavior using the AMBIANCE.

Our first research question (RQ1) was: “What are the characteristics of the families referred to the EC upon intake?” (Time 0). With this question, we sought to assess whether the EC reached its intended target population and to identify the treatment emphasis. Considering the target population of the EC, we expected to find evidence that the referred families had experienced multiple and complex problems at different levels, including mental health issues, implying the presence of multiple risk factors for impaired parenting. Our second research question (RQ2) was: “What and to what extent are atypical parental behaviors displayed during the clinical phase of the program, and do these behaviors diminish during the intervention, indicating the ability to change?”

We expected to find an overall improvement in the ability to parent over time for two reasons: (a) The intervention aimed to improve sensitive parental behavior which, if effective, would result in a decline of atypical behavior; and (b) the intervention included three evaluation points (at Week 4, Week 10, and Week 14) when the trajectories of parents who did not seem to make sufficient progress in the program were terminated with a negative recommendation on FP.

2 | METHOD

2.1 | Intervention

Within the EC, parenting assessments are conducted to underpin placement decisions. The EC aims to be a “last resort” intervention for families seeking either to be reunited with their young child (0–2 years) or to avoid an out-of-home placement following confirmed or suspected child maltreatment (GGZ Drenthe, n.d.). EC intervention is grounded in attachment theory and attachment-related principles, family-system therapy, and trauma-recovery therapy (GGZ Drenthe, n.d.). Mentalization-based treatment (Bateman & Fonagy, 2011) is one of the methods utilized to promote a secure attachment between child and parents through improvement of parents’ ability to accurately “read” their child’s signals and respond appropriately, thus improving sensitive parenting. Parents are approached as the experts of their children, and guided by family coaches toward a higher awareness and understanding about the needs of their children, through a questioning strategy. A range of activities and group sessions is provided, in which the families are supported toward improvement of their parenting skills. Parents are invited to contribute subjects related to their interests and needs. In addition, individual treatment is provided by using video feedback (Fukkink, 2007) (for a more extensive description of the intervention, see Vischer et al., 2017). Research has verified the link between such fundamental parental behavior, termed sensitive caregiving, and attachment security (De Wolff & van IJzendoorn, 1997; Fuertes, Santos, Beeghly, & Tronick, 2006; Moss et al., 2011).

The intervention includes a residential phase lasting up to 16 weeks, during which parents and children live in a clinic from Sunday afternoon through Friday afternoon. During this inpatient part of the program, the functioning of the family is...
evaluated at three set points, as noted earlier. The trajectory may be ended if an evaluation returns a negative recommendation on FP. This may occur, for example, if the EC team considers the capacity to change toward good-enough parenting insufficient to safeguard child safety or if the change process is too slow, considering the limited time frame in which a decision must be made.

The international literature uses various terms to characterize the EC’s target population, such as *multiproblem families* (Ghesquière, 1993), *multistressed families* (Sousa & Eusébo, 2007), and *vulnerable families with complex and enduring needs* (Morris, 2013). Examples of the issues that these families may experience are substance abuse, domestic violence, and problems with housing, authorities, and mental health, while having few resources (Marsh, Ryan, Choi, & Testa, 2006). The problems that these families experience are multiple, serious, and complex (Ghesquière, 1993), interwoven (Bodden & Deković, 2010), and chronic, and these families seem to lack an ability to solve the issues that they face (Bakker, Bakker, Van Dijke, & Terpstra, 1998). Persistence of problems may also be attributed to lack of effective and appropriate service delivery, perhaps caused in part by fear and mistrust of professionals by families due to bad prior experiences in the coercive context of child protection (Schout, Meijer, & De Jong, 2017; Waterhouse & McGhee, 2009). Therefore, one of the keystones of EC intervention is to establish a trustful relationship between parents and professionals, done using techniques from, among others, De Shazer’s (1985) solution-focused brief therapy. To refer to the EC target population, we prefer the term *families in multiproblem situations* (Tausendfreund, Knot-Dickscheit, Schulze, Knorth, & Grietens, 2016), as most of the families’ problems were related to their environment and living situation.

### 2.2 | Design

The first part of this study (addressing RQ1) is descriptive, reflecting administrative data available from the EC. To answer RQ2, we used a one-group repeated measures design. This part of the study can be considered exploratory because to our knowledge, no other evaluation study of an intervention program similar to that of the EC, in terms of its combination of both inpatient treatment and decision-making, has been conducted.

Figure 1 presents an overview of the study. The large arrow represents the intervention and its primary aim: improvement of the ability to parent to achieve good-enough parenting in the long-term; in other words, demonstration of the capacity to parent.

#### 2.3 | Participants

##### 2.3.1 | RQ1

Inclusion criteria regarding the first part of the study were (a) being referred to the EC from March 2013 through October 2014 (since we considered a referral time frame of 1½ years sufficient in terms of a representative sample) and (b) having subsequently had at least one intake interview at the EC. Seventy families complied with these criteria. Since RQ1 referred to the characteristics of the target population, the results section presents basic background data on the participants.

##### 2.3.2 | RQ2

The second part of the study, on the quality of parenting, sought to include all families admitted to the EC clinic for the inpatient part of the intervention from March 2014 onward. Inclusion then continued until 30 families had volunteered to participate in the study, a number which was reached in February 2016. During the inclusion period, 33 families were admitted to the clinic, translating into a participation rate of 91%. The three nonparticipating families all said that they did not feel comfortable being filmed. Figure 2 shows the flow of participants through this part of the study.

For each participating family, data on parent-child dyads were analyzed. The index parent-child dyad was selected...
Recruitment: all 33 families who were admitted in the clinic of the EC from March 2014

T1 Participants enrolled in study (N = 30)
- Declined to participate (n = 3)
- Drop out of study (n = 2)
- Positive advice on FP (n = 2)
- Negative advice on FP (n = 7)

T2 Participants enrolled in study (n = 21)
- Positive advice on FP (n = 16)
- Negative advice on FP (n = 2)

T3 Participants enrolled in study (n = 19)
- Positive advice on FP (n = 3)
- Positive advice 2nd trajectory (n = 1)

FIGURE 2 Families’ flow through stages of the parenting study, including the outcome of the decision on family preservation

using two criteria: (a) the parent being a primary caregiver and (b) the child being under 3 years of age. If a participating family had two children in this age group, the oldest child was selected. At Time 1 (T1), we obtained data on 30 parent–child dyads, at Time 2 (T2), we obtained data on 21 dyads, and at Time 3 (T3), we obtained data on 19 dyads. Missing data at T2 were due to termination of a family’s participation in the trajectory after the first evaluation with negative advice on FP (n = 7; “short trajectory” group) or a family’s decision to drop out (n = 2). Missing data at T3 were the result of termination of two trajectories just before the final part of the residential phase. Table 1 presents background data on the participants.

2.4 | Procedure
2.4.1 | RQ1
The first author compiled family files from EC’s digital administrative system. These consisted of reports provided by the case manager of the family in the context of the referral procedure, an application form, and a report of the intake conversation. Twenty files were coded by two coders to calculate Cohen’s $\kappa$. The remaining files were coded by the same coders and one extra coder who had been trained by the other two coders.

2.4.2 | RQ2
Data for the parenting study were collected during the residential phase of the intervention: in Week 2 (T1), in Week 6 or 7 (T2), and just before the final evaluation in Week 13 or 14 (T3). Parents were asked to notify the main researcher (who worked in an office in the clinic on data-collection days) when they were ready to carry out one of the core parenting tasks that were part of the data-collection protocol: feeding, caring, and putting to bed. The parents were requested to “act usual” and pretend that the camera was not there. The interaction was filmed for a minimum of 10 min. Some families were also observed by a family coach during filming when this was indicated in the family treatment plan. As part of the protocol, the coach was not to interfere unless the safety of the child was at risk. There were no such occurrences during data collection. After filming, the parents received a voucher for a local supermarket and a digital copy of the videos. In addition, parents could request that the researcher provide the videos to the family coaches for use in video-feedback sessions (a method regularly used within the EC). Almost all participating families consented to using the videos in this way.

The procedure complied with the ethical guidelines of the University of Groningen, Department of Pedagogical and Educational Sciences. The Medical Ethical Board of the University Medical Center Groningen concluded that no further assessment of the ethical protocol was needed.
### Table 1
Parenting study participant characteristics upon referral

|                      | M   | SD  | Range     |
|----------------------|-----|-----|-----------|
| Parent age at Time 1a| 25.9| 5.5 | 18–44     |
| Child age (months) at Time 1b| 15.6| 10.5| 1–32     |

| Child age groups       | n  | %    |
|------------------------|----|------|
| 0–12 months            | 12 | 40.0 |
| 13–24 months           | 9  | 31.0 |
| 25–32 months           | 9  | 31.0 |

| Parent gender          |     |      |
|------------------------|-----|------|
| Female                 | 27  | 90.0 |
| Male                   | 3   | 10.0 |

| Child gender           |     |      |
|------------------------|-----|------|
| Female                 | 15  | 50.0 |
| Male                   | 15  | 50.0 |

| Family type            |     |      |
|------------------------|-----|------|
| Two-parent household   | 16  | 53.3 |
| Two-parent household (blended) | 4  | 13.3 |
| Single-parent household| 10  | 33.3 |

| No. of children in family |     |      |
|--------------------------|-----|------|
| One child under age 3    | 23  | 76.7 |
| Two children under age 3 | 7  | 23.3 |
| At least one child above age 2 | 8 | 26.7 |

| Parent ethnicity         |     |      |
|--------------------------|-----|------|
| Native Dutch             | 21  | 70.0 |
| Non-Western migration background | 9 | 30.0 |

| Child ethnicity          |     |      |
|--------------------------|-----|------|
| Native Dutch             | 21  | 70.0 |
| Non-Western migration background | 9 | 30.0 |

\[^a_n = 30.\]  
\[^b_n = 30.\]

### 2.5 | Instruments

#### 2.5.1 | RQ1

The characteristics of 70 families were investigated through an extensive file analysis using a coding system based on two Dutch categorizing instruments related to treatment goals and problem types among children and adolescents in youth care (Konijn et al., 2009; Reith, Hofman, Stams, & Van Yperen, 2008). We revised the coding system several times, repeatedly analyzing a set of files until all relevant variables were covered. In addition, we developed a coding protocol to ensure similar and systematic coding across coders. Interrater reliability was checked by asking two coders to code 20 files and calculating Cohen’s $\kappa$. The outcome for most variables was “good” (0.61–0.80) or “very good” (0.81–1), following the classification of Altman (1991). Three variables were coded with less agreement ($\kappa = <0.61$) and therefore were adjusted or removed from the coding system. The codes covered characteristics at the family, parent, and child levels.

#### 2.5.2 | RQ2

The ability to parent was studied by naturalistic observation of three core parenting situations: feeding the child, physically caring for the child (e.g., bathing, dressing), and putting the child to bed. It was assumed that by filming parents while they were being assessed by the EC (in most cases, involuntarily), their best efforts and ability to parent would be observable and used as an indicator in our study. As parenting is relational, the ability to parent is not merely a characteristic of an individual parent but rather a characteristic of the relationship between a specific parent and child (Crittenden, 2005). We used the AMBIANCE to measure the ability to parent. This instrument is based on the construct that parental behavior toward a child is a major determinant of multiple child outcomes. As noted earlier, the AMBIANCE is a coding system for assessing parental behaviors associated with disorganized attachment. It includes items from “Frightening, Dissociated or Disorganized Behavior on the Part of the Parent: A Coding System for Parent-Infant Interactions” (Main & Hesse, 1992), and has been further developed into a revised version including rating scales (Bronfman, Madigan, & Lyons-Ruth, 2014).

The AMBIANCE system consists of the following dimensions: (a) affective communication errors (e.g., contradictory signaling to infant or failure to appropriately respond to infant cues), (b) role/ boundary confusion (e.g., treating the infant as a spousal partner or role reversal), (c) fearful/disoriented behavior (e.g., appearing frightened in interaction with the infant or generally disoriented), (d) intrusiveness/negativity (e.g., verbally or physically intrusive behavior, inappropriate attribution of negative feelings to the child), and (e) withdrawal (avoidance, maintaining distance from the child). Each dimension is operationalized by two to four subcategories, all of which have been given codes (for an illustration of behaviors coded with the AMBIANCE pre- and post psychotherapy, see Baradon & Bronfman, 2010).

A transcript of a 5-min, video-recorded, parent–child interaction was used to assign the codes to the parental behaviors. Based on the number and severity of the coded behaviors, each dimension was rated on a scale from 1 (no evidence of the concerning behavior) to 7 (persistent evidence of the concerning behavior). Finally, a score was assigned from the Parental Level of the Disrupted Communication Scale based on the ratings of the five dimensions. Rating scores 1 and 2 were considered optimal, 3 and 4 were considered nonoptimal but not disrupted, and scores of 5 and higher were considered disrupted. In case of a disrupted score, two subtypes could be assigned: “intrusive/self-referential” and “helpless/fearful.” Some parents exhibited features of both subtypes.
A certified AMBIANCE coder coded the video-recording after completion of training provided by one of the developers and the AMBIANCE reliability test. As the AMBIANCE requires a 5-min fragment of parent–child interaction, a selection procedure was used to select 6 min of video material (For each family, a minimum of 30 min of filmed interaction was available.) For the “feeding” and the “caregiving” situations, the last 2½ min were coded; the first minute of the “putting to bed” situation was coded, starting exactly when the parent put the child in bed. The coder strictly followed the AMBIANCE coding protocol. The trainer was regularly consulted, especially concerning (a) fearful/disoriented behaviors (as the reliability test returned a low intraclass correlation coefficient for the ratings on this dimension); and (b) application of the coding system during the core parenting situations, which differed from the training and reliability test, as these were based on the Strange Situation Procedure (Ainsworth et al., 1978). The coder was blind to time (T1, T2, or T3) of the measurement.

2.6 | Data analysis

2.6.1 | RQ1
Data extracted from the family files were analyzed using descriptive statistics generated with SPSS Version 24 (IBM, New York, NY).

2.6.2 | RQ2
Descriptive statistics
First, we calculated means, SDs, and minimum and maximum scores for both the frequency and rating scores of each AMBIANCE scale, including the overall level of disruption at T1, T2, and T3. Further, we calculated the percentages of families with a rating score in the disrupted range (>4).

Testing differences
Using the Friedman test, we compared the rank means for each dimension over time across the group of parents with three measurements (n = 19) to identify relevant scales for further analysis. With reference to the small sample and the explorative character of the study, a statistical significance level of $P \leq .10$ was employed. Significant differences were then tested pairwise using the Wilcoxon signed rank test.

Type of change
We examined whether parents with at least two measurements available (n = 21) changed between the nondisrupted range and the disrupted range on the dimension rating scores and the rating score of the overall level of disruption between T1 and the last measurement (TL) before the end of their trajectory. Cases were assigned to one of four categories representing the following types of change: (a) “no change, nondisrupted” (scores in the nondisrupted range at T1 and in the nondisrupted range at TL), (b) “negative change” (scores in the nondisrupted range at T1 and in the disrupted range at TL), (c) “positive change” (scores in the disrupted range at T1 and in the nondisrupted range at TL), and (d) “no change, disrupted” (scores in the disrupted range at T1 and in the disrupted range at TL).

The proportion of families in the last two categories can be regarded as an indicator of the potential for change within the sample toward a good-enough level of the measured parenting aspects, as these families scored in the disrupted range at T1. Finally, we identified which families fell into the positive change category for each dimension to determine if positive change in one dimension was related to positive change in other dimensions.

3 | RESULTS

3.1 | Target population description

3.1.1 | Family level
Most of the 70 families referred to the EC were two-parent households (n = 50; 71.4%). In three fourths of these families (75.7%), there was one child under the age of 3 years, 16 families had two children in this age group (22.9%), and one family had three children under age 3. Eight of the referred families (11.4%) also had children older than age 3. Table 2 presents the most often reported problem areas at the family level.

3.1.2 | Parent level
Among the 70 families, 120 parents were involved at intake. Just over half of the parents were mothers (n = 68; 56.7%). Information on ethnicity was absent from many family files. Where such information was missing and there were no indications of an origin other than Dutch (e.g., an atypical family name), the code “probably of Dutch origin” was used. Otherwise, ethnicity was coded as missing. The largest proportion of parents (38.3%) was of Dutch origin, 40 parents (33.3%) were coded as probably of Dutch origin, and 14 parents (11.7%) had a migration background. The professional status of most parents was “not employed” (64.2%); 11 parents were “full-time employed” (9.2%), and 5 parents held a part-time job (4.2%). The professional status of 17 parents (14.2%) was coded as “other;” these parents were, for example, an internship program, volunteered, or had sheltered employment. Table 3 presents the most often reported problem areas at the parent level.

3.1.3 | Child level
The 70 families had, in total, 90 children who had been referred to the EC, of which 15 were unborn at the time of the
referral. The number of boys ($n = 40$) and girls ($n = 41$) was almost equal among the referred children (missing values for unborn children). Most of the children were of Dutch origin ($n = 63; 70\%$), although 22 children had a migration background (24.4%), and the ethnicity of 5 children was coded as probably of Dutch origin. Table 4 displays characteristics of child protection measures, placements, and reported problem areas at the child level. For 18.9% of the children, no problems were reported.

### 3.2 Summary

Our analysis of the family files revealed a great number of reported issues at the family, parent, and child levels, varying from practical issues (e.g., related to housing and finances) to problems in parent functioning and between parents (e.g., in the partner relationship) and the environment (e.g., problems in the social network and in connection with social workers). Although the children involved were under age 3 years, most had already experienced child-level problems, often physical, and profound adverse events in their young lives. These children proved to be highly vulnerable. In addition, it became clear that the problems the families had experienced, as documented in the files, were long-lasting. For instance, almost all families had a long history of social service use, and for 81.7% of the parents, problems in their own childhood were reported (e.g., a history of out-of-home placements).
TABLE 4  Reported characteristics and problem areas upon referral at the child level

| N  | n   | %   |
|----|-----|-----|
| Supervision order | 54  | 73.0 |
| Out-of-home placement | 45  | 60.0 |
| Placement at intake  |     |     |
| With birth family | 20  | 26.7 |
| With parents under supervision | 6  | 8.0 |
| Foster care | 29  | 38.7 |
| Kinship care | 10  | 13.3 |
| Other | 10  | 13.3 |
| No. of placements |     |     |
| 0  | 36  | 48.0 |
| 1  | 24  | 32.0 |
| 2–5 | 10  | 13.3 |
| Missing | 5  | 6.7 |
| Reported problem area |     |     |
| Emotion | 25  | 33.3 |
| Inconsolable crying | 16  | 21.3 |
| Behavior | 26  | 34.7 |
| Physical | 48  | 53.3 |
| Physical complaints | 21  | 28.0 |
| Toxin exposure during pregnancy | 16  | 17.8 |
| Feeding | 13  | 17.3 |
| Sleeping | 12  | 16.0 |
| Physical development | 10  | 13.3 |
| Muscle tone | 9  | 12.0 |
| Motor development | 4  | 5.3 |
| Other physical problems | 19  | 25.3 |
| Adverse events | 62  | 68.9 |
| Emotional neglect | 30  | 40.0 |
| Witness of domestic violence | 28  | 37.3 |
| Physical neglect | 28  | 37.3 |
| Physical abuse | 13  | 17.3 |
| Prenatal experiences of domestic violence | 12  | 13.3 |
| Suspected child maltreatment (not specified) | 7  | 9.3 |
| Emotional abuse | 5  | 6.7 |
| Child maltreatment (not specified) | 2  | 2.7 |
| Other adverse events | 18  | 24.0 |

Note. The 70 families included 75 children and 15 unborn children. 
*Variables were calculated with N = 90, as the unborn children were included.

### 3.3 | Descriptive statistics of atypical behavior during intervention

#### 3.3.1 | Frequency scores

Table 5 shows the frequency and rating scores of atypical behaviors for each AMBIANCE dimension during the EC intervention. The mean and maximum frequency scores for all except one dimension (role/boundary confusion), declined over time (T1 vs. T3). Role/boundary confusion behaviors increased between T1 and T2 and declined between T2 and T3, but still resulted in a higher mean frequency score at T3 as compared to T1. Most of the observed atypical behaviors were categorized under the dimensions of affective communication errors and intrusiveness/negativity. At the start of the intervention (T1), the fewest observed atypical behaviors were categorized under the dimensions of role/boundary confusion and withdrawal. At the end of the intervention, the fewest observed atypical behaviors fell under the dimensions of withdrawal and fearful/disoriented behavior.

#### 3.3.2 | Rating scores

At all times (T1, T2, and T3), atypical parental behaviors scored under the dimension of affective communication errors were rated as most severe, as compared to the other dimensions. The mean scores on this scale at T1 and T2 were greater than 4, signifying disrupted behavior. The mean rating scores for all dimensions, except role/boundary confusion, declined over the course of the intervention. At the start of the intervention (T1), a proportion of the sample was rated 5 or above on every dimension. At the end of the intervention, all parents scored under 5 on the dimensions of fearful/disoriented behavior and withdrawal. The mean score for overall level of disruption as well as the percentage of parents rated with a disrupted score (5, 6, or 7) declined over time. The mean of the overall level of disrupted behavior fell into the nondisrupted range. At the start of the intervention, 63.3% of the parents were classified as disrupted; at T2, this percentage was 42.9%, and at the end of the intervention, 36.8% of the parents were classified as disrupted.

### 3.4 | Testing differences over time

#### 3.4.1 | Frequency scores

For the group of parents with three measurements (n = 19), a Friedman test was conducted comparing the different measures for each AMBIANCE scale. The analysis rendered a significant chi-squared value, $P < .10$ (see Table 6) for three scales: affective communication errors, fearful/disoriented behavior, and intrusiveness/negativity. A Wilcoxon signed-rank test indicated a significant difference, $P < .10$, on the dimension of affective communication errors between T1 and T3, $Z = -2.457, P = .014$, and this was also the case for the difference on the dimension of fearful/disoriented behavior, $Z = -2.277, P = .023$, after Bonferroni correction.

#### 3.4.2 | Rating scores

A Friedman test indicated differences in rating scores over time for affective communication errors and intrusiveness/negativity, $P < .10$ (see Table 6). A Wilcoxon signed-rank test showed a significant difference, $P < .10$, on the
### Table 5
Descriptive statistics of frequency and rating scores for subscales of atypical maternal behavior during intervention

|       | Time 1 (n = 30) | Time 2 (n = 21) | Time 3 (n = 19) |
|-------|-----------------|-----------------|-----------------|
|       | M (SD)          | max             | % n>4a          | M (SD)          | max             | % n>4a          | M (SD)          | max             | % n>4a          |
| ACE   |                 |                 |                 |                 |                 |                 |                 |                 |                 |
| frequency | 13.1 (8.8)    | 40              | 53.3            | 11.1 (8.6)     | 32              | 52.4            | 7.3 (4.9)       | 17              | 26.3            |
| rating | 4.5 (2.0)      | 7               |                 | 4.4 (1.8)      | 7               |                 | 3.2 (1.7)       | 6               |                 |
| RBC   |                 |                 |                 |                 |                 |                 |                 |                 |                 |
| frequency | 4.2 (4.1)      | 14              | 13.3            | 6.8 (7.1)      | 28              | 23.8            | 5.7 (6.8)       | 26              | 19.0            |
| rating | 2.5 (1.5)      | 6               |                 | 2.8 (1.7)      | 7               |                 | 2.6 (1.7)       | 7               |                 |
| FDB   |                 |                 |                 |                 |                 |                 |                 |                 |                 |
| frequency | 7.9 (7.7)      | 31              | 26.7            | 6.5 (7.3)      | 22              | 19.0            | 3.9 (4.9)       | 21              | 0               |
| rating | 3.2 (1.8)      | 7               |                 | 2.6 (1.6)      | 6               |                 | 2.1 (1.1)       | 4               |                 |
| IN    |                 |                 |                 |                 |                 |                 |                 |                 |                 |
| frequency | 10.7 (10.1)   | 37              | 40.0            | 9.1 (8.4)      | 26              | 42.9            | 7.1 (6.7)       | 20              | 31.6            |
| rating | 3.5 (2.1)      | 7               |                 | 3.4 (2.2)      | 7               |                 | 2.7 (1.8)       | 6               |                 |
| WIT   |                 |                 |                 |                 |                 |                 |                 |                 |                 |
| frequency | 4.0 (4.2)       | 15              | 26.7            | 5.4 (5.2)      | 18              | 19.0            | 2.4 (1.8)       | 6               | 0               |
| rating | 2.9 (1.8)      | 6               |                 | 2.6 (1.6)      | 6               |                 | 2.0 (1.0)       | 4               |                 |
| OLD   |                 |                 |                 |                 |                 |                 |                 |                 |                 |
| rating | 4.4 (1.8)      | 7               | 63.3            | 4.0 (1.9)      | 7               | 42.9            | 3.3 (1.9)       | 7               | 36.8            |

Note. On all dimensions, the minimum frequency score was 0, and the minimum rating score was 1. ACE = affective communication errors; RBC = role/boundary confusion; FDB = fearful/disoriented behavior; IN = intrusiveness/negativity; WIT = withdrawal; OLD = overall level of disruption.

aPercentage with a rating score in the disrupted range.

### Table 6
Mean rank scores and outcomes of the Friedman test of the frequency and rating scores

|       | n = 19 | M rank |      |      |      |      |      |      |      |
|-------|--------|--------|------|------|------|------|------|------|------|
|       |        | Time 1 | Time 2 | Time 3 | 𝜒² | P-value |
| ACE   |        |        |        |        |     |        |
| frequency | 2.4    | 2.0    | 1.7   | 5.38  | .068a|
| rating   | 2.4    | 1.8    | 1.8   | 6.33  | .042a|
| RBC   |        |        |        |        |     |        |
| frequency | 1.8    | 2.1    | 2.1   | 1.06  | .589 |
| rating   | 1.8    | 2.2    | 2.0   | 2.18  | .337 |
| FDB   |        |        |        |        |     |        |
| frequency | 2.3    | 2.0    | 1.7   | 4.76  | .093a|
| rating   | 2.2    | 2.0    | 1.8   | 3.04  | .219 |
| IN    |        |        |        |        |     |        |
| frequency | 2.3    | 2.0    | 1.6   | 4.95  | .084a|
| rating   | 2.2    | 2.2    | 1.7   | 5.64  | .059a|
| WIT   |        |        |        |        |     |        |
| frequency | 1.8    | 2.4    | 1.8   | 4.55  | .103 |
| rating   | 2.1    | 2.1    | 1.7   | 3.57  | .168 |
| OLD   |        |        |        |        |     |        |
| Rating   | 2.3    | 2.0    | 1.7   | 4.54  | .113 |

Note. ACE = affective communication errors; RBC = role/boundary confusion; FDB = fearful/disoriented behavior; IN = intrusiveness/negativity; WIT = withdrawal; OLD = overall level of disruption.

aP <.10.
FIGURE 3  Distributions of parents by type of change, in percentages; ACE = affective communication errors; RBC = role/boundary confusion; FDB = fearful/disoriented behavior; IN = intrusiveness/negativity; WIT = withdrawal; OLD = overall level of disruption.

dimension of affective communication errors between T1 and T3,  

3.5 Type of change

Our analysis of the type of changes observed in the group with at least two measurements available (n = 21) revealed that on all five dimensions, most parents could be assigned to the no change, nondisrupted group and the fewest parents assigned to the negative change group (see Figure 3). With respect to the total potential positive change toward good-enough parenting (the sum of the groups of no change, disrupted and positive change), the greatest change occurred on the dimensions of fearful/disoriented behavior (5 of 7 possibilities) and withdrawal (4 of 5 possibilities). With respect to the overall level of disruption, the parents were spread quite evenly over the three groups of no change, nondisrupted (n = 7); no change, disrupted (n = 8); and positive change (n = 6).

Eleven of the 21 parents fell into the positive change group on at least one of the dimensions. Examination of the cases revealed two patterns and four cases. First, 4 parents were assigned to the positive change group on the dimensions of affective communication errors AND intrusiveness/negativity AND overall level of disruptive behavior. For 3 parents, this was the case for fearful/disoriented behavior AND withdrawal. One parent fell into the positive change group on role/boundary confusion, fearful/disoriented behavior, intrusiveness/negativity, AND overall level of disruption. The remaining 3 parents were assigned to the positive change group on a single dimension (see Table 7).

3.6 Summary

Most of the atypical behaviors observed among parents in the EC program studied related to the dimensions of affective communication errors and intrusiveness/negativity. The fewest atypical behaviors observed fell into the dimensions of role/boundary confusion and withdrawal. Significant differences were found over time in relation to mean frequencies and mean rating scores with reference to the scales of affective communication errors, intrusiveness/negativity, and fearful/disoriented behavior.

At the end of the intervention (T3), all parents scored in the nondisrupted range regarding the scales of fearful/disoriented behavior and withdrawal. On the other scales, between 19.0 and 31.6% of parents scored in the disrupted range. Although no statistically significant decline in overall level of disruption was found, the proportion of parents with a disrupted score dropped during the intervention from 63.3 to 36.8%.

The greatest potential to change from a score in the disrupted range at the start of the intervention to a good-enough score at T2 or T3 was found on the scale of overall level of disruption (n = 14), and for the dimensions of affective communication errors (n = 11) and intrusiveness/negativity (n = 9). Respectively, 42.8, 45.0, and 55.5% of these parents could be assigned to the positive change group. A higher percentage of positive change was found on the withdrawal scale (4 of 5 possibilities) and the fearful/disoriented scale (5 of 7 possibilities). Analysis of the type of changes observed suggests a connection between the three scales: All parents, except 1 parent who fell into the positive change group on the affective communication errors scale, went through a similar positive change on the intrusiveness/negativity scale and the overall level of disruption scale. The same pattern was found for three parents regarding the scales of fearful/disoriented behavior and withdrawal.

| Case No. | 1–4 | 5–7 | 8  | 9  | 10 | 11  |
|----------|-----|-----|----|----|----|-----|
| Affective communication errors | x    |     |    |    |    |     |
| Role/boundary confusion |     | x    |    |    |    |     |
| Fearful/disoriented behavior |     | x    | x  |    |    |     |
| Intrusiveness/negativity | x    |     |    |    |    |     |
| Withdrawal |     |     | x  |    |    |     |
| Overall level disruptive behavior | x    |    |    |    | x  |     |
4 | DISCUSSION

4.1 | Conclusions and implications for practice

4.1.1 | Target population

As outlined previously, we expected our sample to fit the descriptions found in the literature on families in multiproblem situations, including mental health issues. Our findings support this hypothesis, indicating that the EC reaches the intended target population: families in multiproblem situations with young children (0–2 years of age), of whom at least one parent has a mental illness, seeking family preservation. Such confirmation is essential in evaluation research to understand to whom exactly the study outcomes apply.

We found that the family files often lacked explicit information on the nature and severity of the psychiatric problems experienced, as indicated by the variable “unclear DSM classification” (Diagnostic and Statistical Manual of Mental Disorders; American Psychiatric Association, 2013). In these cases, referral to the EC seems highly relevant to gain a better understanding of the parenting situation, although it also implies that upon referral it is not always clear whether the families fit the inclusion criteria set by the EC. If the nature and severity of the problems are ambiguous, it is recommended that parental mental health be assessed in the referral and intake phase.

In addition, it became clear that intellectual disabilities, sometimes mild, were reported or suspected regarding a substantial proportion of the parents (50%). Since the combination of mental health issues and intellectual disability is known to be a risk factor in child maltreatment (Wilkins & Farmer, 2015), it is essential to identify these parents at the start of the intervention and to clarify during the program in what ways and to what extent the mental health issues and intellectual disability (or their combination) impact the capacity to parent, to safeguard the children and decide on treatment emphasis.

Further, our analysis found that problems in the partner relationship, such as intimate partner violence, were common among the target population. Since exposure to intimate partner violence (witnessed by 37% of the children) may well lead to trauma symptoms among very young children (Bogat, DeJonghe, Levendosky, Davidson, & Von Eye, 2006; Graham-Bergmann & Levendosky, 1998), much attention should be given to this issue, and it needs to be targeted during treatment by, for example, providing relationship therapy.

Furthermore, the family files contained evidence that the children involved were highly vulnerable, not only due to their age but also because of the potentially traumatizing events that they had undergone and the problems a substantial proportion of them had experienced, as documented in the files. Therefore, these children should be closely monitored, and their well-being must remain the primary consideration in the decision-making process during the entire trajectory. There may be a risk of an overly narrow focus on the parents during the trajectory (also see Tausendfreund et al., 2016) because parenting is the main object of the assessment, and a trusting working alliance with parents needs to be established.

4.1.2 | Parenting study

We also aimed to understand in what ways and to what extent the ability to parent was impaired among the target population. Our analysis provided detailed insight into the various aspects of atypical parental behaviors within our sample, which will be useful to further clarify the nature and severity of parenting problems within the target population and the treatment focus of FP services. Further, we sought to shed light on the outcomes of the intervention regarding the ability to parent. We assumed that we would find a decline in atypical behavior during the program. Our hypothesis was confirmed in relation to the scales of affective communication errors, intrusiveness/negativity, and fearful/disoriented behavior. These results are consistent with outcomes of two other studies (Benoit et al., 2001; Tereno et al., 2017) that have found a decline in atypical parental behavior following interventions targeting sensitive parenting.

Nevertheless, in our study, a proportion of parents scored in the disrupted range on three of the five scales and on overall level of disruption at the end of the intervention. This indicates that certain aspects of the ability to parent were still compromised among some of the parents after the clinical phase. If these were the parents who received a negative recommendation on FP, the outcomes on the AMBIANCE scales can be considered as a first indication of the validity of this decision. However, if these were parents who received a positive FP recommendation, ongoing support for these parents is recommended, targeting these issues in the home situation after the clinical phase. For instance, intensive aftercare or referral might be considered, alongside assurance of adequate transition to other services.

The duration of FP services is an important issue under discussion. FP interventions are designed to be intensive and of limited duration. However, there is evidence that the effects of FP services diminish after 12 months (Kirk & Griffith, 2004). Lindsey, Martin, and Doh (2002) argued that the problems experienced by families referred to FP services are too severe and complex to be resolved in the short-term. A study of the outcomes of the EC in terms of the ability to parent in the long-term is therefore recommended.

The decline in atypical behaviors that we found on three scales might indicate the target population's capacity to change toward sensitive parenting through intensive support.
Another explanation for the changes registered in parental behavior is valid decision-making by the EC in the three evaluations, as the families who scored lowest on the parenting scales were terminated or dropped out of the treatment. Further research is needed to explore the dynamics underlining these outcomes.

We found no significant difference over time concerning the scales of role/boundary confusion and withdrawal. This might be due to the fact that there was less potential for improvement in these behaviors, as most parents did not score high on these scales at the start of the intervention. However, it might also indicate that the treatment provided by the EC had no, or limited, impact on these aspects of parental behavior or that parents recognized these behaviors as inappropriate and made adjustments themselves while being directly observed.

Change was also examined more qualitatively by categorizing parents into four groups according to the type of change found. Our analysis identified two patterns and provided some indication that the AMBIANCE scales may be related. Further research is needed to examine these relationships and links between the scales.

Our study also yielded relevant lessons on the applicability of the AMBIANCE for the study of core parenting situations (feeding the child, physical care of the child, and putting the child to bed) using video data from naturalistic observation in a family psychiatric context aimed at FP. Since we identified evolution in atypical behaviors within our sample during the intervention, the AMBIANCE did appear to be a useful instrument for mapping changes in disruptive parental behavior within this target population.

Parenting, and the ability to parent, encompasses more than the atypical behaviors coded with this instrument. However, the quality of maternal behavior has proven to be a stronger predictor of long-term outcomes over time than has infant attachment, indicating the importance of parental behavior (e.g., Dutra, Bureau, Holmes, Lyubchik, & Lyons-Ruth, 2009; Shi, Bureau, Easterbrooks, Zhao, & Lyons-Ruth, 2012). In addition, there is a sound theoretical and empirical foundation for the pathway of improving outcomes for children by targeting atypical behaviors of their parents and, by doing so, potentially affecting attachment quality as well. Therefore, the AMBIANCE seems a very valuable instrument for clinical assessment of parenting, for both treatment and decision-making purposes, because specific, individual, and complex needs can be outlined based on the interaction between parent and child. Moreover, AMBIANCE codes relate to concrete observable behaviors, making them a very useful basis for dialogue with parents about the abstract concept of parenting and suitable for video-feedback techniques. In addition, the AMBIANCE has proven to be highly informative in evaluation research on interventions targeting the quality of parenting.

4.2 | Limitations and strengths

4.2.1 | Target population description
Concerning the reliability of the target population analysis, note that by using file analysis we examined the reported characteristics of the families. We assumed that the reported characteristics of the family situations were considered relevant and significant in the context of a possible out-of-home placement by the professionals involved and therefore appropriate to describe the target population. However, we also noticed that the files contained reports of low quality. That is, information contained in the reports was often ambiguous and incomplete regarding, for example, the overall family situation, former service use, and the outcomes of services provided. Again, a lack of clarity on the overall family situation is often the reason for referral to the EC, and obtaining a good understanding of family functioning is one of the main objectives of treatment. We believe that the quality of reporting within child protection services can and should be improved. Reports overall need to be more accurate and comprehensive because they are often the basis for decision-making and treatment emphasis. One strength of our study was the comprehensiveness of our target-population description, which went well beyond the report of merely general background characteristics, which is common in evaluation research.

4.2.2 | Parenting study
Our lack of a comparison group, for practical reasons, was a limitation of this study. The greatest challenge in finding a control group was the fact that our target group consisted mainly of families with a child who had been placed out of the home, meaning that it was not possible to assess parenting among families in a similar situation because parents typically do not care for their children following out-of-home placement. No alternative interventions with a similar target population were available that could be used to assemble a control group.

Furthermore, our sample size was relatively small, although data collection at the clinic lasted 2 years. Therefore, it is uncertain whether the sample is representative of the target population. In addition, the small sample size could lead to problems concerning the statistical power of the study. We did not employ multiple testing correction due to the explorative character of the research. However, we did find a significant and meaningful decline over time, suggesting that the sample was large enough to obtain relevant results. Finally, the reliability of the rating scores for the fearful/disoriented scale was marginally acceptable. For these reasons, the results of our study should be considered indicative rather than conclusive.

Use of the AMBIANCE in a repeated measures design with multiple parents constituted a unique and informative
advance regarding clinical use of the instrument. Our sample included both mothers and fathers. While there has been a substantial shift in the involvement and role of fathers in child rearing and caregiving over the past decades (Cabrera, Tamis-LeMonda, Bradley, Hofferth, & Lamb, 2003), there is a lack of research on the father–child relationship. Only one other published study using the AMBIANCE has engaged fathers and has aimed to explore the link between paternal behavior in the development of disorganized infant–father attachment (Madigan, Benoit, & Boucher, 2011). Similarly to De Wolff and van Ilzendoorn (1997), who found that paternal sensitive responsiveness is a weak predictor of secure infant–father attachment (in contrast to maternal sensitive responsiveness and secure infant–mother attachment), prior studies have found that paternal atypical behavior does not predict infant–father disorganized attachment. Nevertheless, we believe that improvement of parental sensitive behavior is a desirable outcome and worth examining.

4.3 | Conclusion

This evaluation study of EC intervention contributes to the evolving evidence on interventions targeting improvement of the parenting of young children in the context of permanency planning to increase child safety and prevent maltreatment of infants and toddlers. Furthermore, it is clear that the program provided by the EC has great potential to fulfill a very complex task in child protection: supporting a vulnerable target population in pursuing FP, preventing unnecessary caregiver changes, and providing permanency for infants and toddlers.

ACKNOWLEDGMENTS

This study was funded by Stichting Kinderpostzegels Nederland and Fonds NutsOhra (6456945 and 1103-072).

CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

ENDNOTES

1 The child protection worker responsible for the referral of the family to the Expertise Center, usually the case manager or family guardian.

2 In Dutch: Expertisecentrum voor Behandeling en Beoordeling van Ouderschap en Psychiatrie.

3 In this study, we distinguish between the ability to parent and the capacity to parent. ‘Ability to parent’ refers to the ability of parents to take care of their child on a basic level in direct interaction with the child at a certain time. It can be considered fundamental to parenting and is related to core aspects involved in parenting such as parental sensitivity. Providing a good enough quality of parenting (ability to parent) on a continuous basis in the long term can be considered as the ‘capacity to parent’ (Conley, 2003).

4 Data were gathered among the 30 families for every child under 3 years of age. Seven families had two children in this age group, resulting in 37 parent–child dyads.

5 These are the professionals working on a daily basis with the families in the clinic.

ORCID

Anne-Fleur W. K. Vischer
https://orcid.org/0000-0003-4995-5548

REFERENCES

Ainsworth, M. D. S., Blehar, M. C., Waters, E., & Wall, S. (1978). Patterns of attachment: A psychological study of the strange situation. Hillsdale, NJ: Erlbaum.

Altman, D. G. (1991). Practical statistics for medical research. London: Chapman and Hall.

American Psychiatric Association. (2013). Diagnostic and statistical manual of mental disorders (5th ed.).

Bakker, I., Bakker, K., Van Dijike, A., & Terpstra, L. (1998). O&O in perspectief [O&O in perspective]. Utrecht, The Netherlands: Nederlands Instituut voor Zorg en Welzijn (NIZW). Retrieved from https://www.nji.nl/nl/Download-NJi/Publicatie-NJi/OenOinPerspectief.pdf

Baradon, T., & Bronfman, E. (2010). Contributions of, and divergences between, clinical work and research tools relating to trauma and disorganisation. In T. Baradon (Ed.), Relational trauma in infancy: Psychoanalytic, attachment and neuropsychological contributions to parent–infant psychotherapy (pp. 163–179). London, United Kingdom: Routledge.

Bateman, A., & Fonagy P. (Eds.). (2011). Handbook of mentalizing in mental health practice. Washington, DC: American Psychiatric.

Benoit, D., Madigan, S., Lecce, S., Shea, B., & Goldberg, S. (2001). Atypical maternal behavior toward feeding-disordered infants before and after intervention. Infant Mental Health Journal, 22, 611–626. https://doi.org/10.1002/imhj.1022

Bernier, A., Beauchamp, M. H., Carlson, S. M., & Lalonde, G. (2015). A secure base from which to regulate: Attachment security in toddlerhood as a predictor of executive functioning at school entry. Developmental Psychology, 51, 1177–1189. https://doi.org/10.1037/dev0000032

Boddien, D., & Deković, M. (2010). Multiprobleemgezinnen ontrafel [Multiproblem families unraveled]. Tijdschrift voor Orthopedagogiek, 49, 259–271.

Bogat, G. A., De Jonghe, E., Levendosky, A. A., Davidson, W. S., & Von Eye, A. (2006). Trauma symptoms among infants exposed to intimate partner violence. Child Abuse & Neglect, 30, 109–125. https://doi.org/10.1016/j.chiabu.2005.09.002

Bowby, J. (1979). The making and breaking of affectional bonds. London: Tavistock/Routledge.

Bowby, J. (1982). Attachment. New York, NY: Basic Books.

Bronfman, E., Madigan, S., & Lyons-Ruth, K. (2014). Disrupted Maternal Behavior Instrument for Assessment and Classification (AMBIANCE): Manual for coding disrupted affective communication (2nd ed.). Unpublished manuscript, Boston, MA: Harvard University Medical School.

Bronfman, E. T., Parsons, E., & Lyons-Ruth, K. (1992). Disrupted Maternal Behavior Instrument for Assessment and Classification (AMBIANCE): Manual for coding disrupted affective
from a five year follow-up study. British Journal of Social Work, 43, 559–578. https://doi.org/10.1093/bjsw/bcr1184

Lyons-Ruth, K., Bronfman, E., & Parsons, E. (1999). Maternal frightened, frightening, or atypical behavior and disorganized infant attachment patterns. Monographs of the Society for Research in Child Development, 64, 67–96. https://doi.org/10.1111/1540-5834.00034

Lyons-Ruth, K., & Jacobvitz, D. (1999). Attachment disorganization: Unresolved loss, relational violence and lapses in behavioral and attentional strategies. In J. Cassidy & P. Shaver (Eds.), Handbook of attachment: Theory, research, and clinical applications (pp. 520–554). New York, NY: Guilford Press.

Madigan, S., Bakermans-Kranenburg, M. J., Van IJzendoorn, M. H., Moran, G., Pederson, D. R., & Benoit, D. (2006). Unresolved/disoriented states of mind, anomalous parental behavior, and disorganized attachment: A review and meta-analysis of a transmission gap. Attachment and Human Development, 8, 89–111. https://doi.org/10.1080/14616730600774458

Main, M., & Hesse, E. (1992). Frightening, frightened, dissociated, or disorganized behavior on the part of the parent: A coding system for parent–infant interactions (4th ed.). Unpublished manuscript, Berkeley, CA: University of California.

Mc Grath-Lone, L., Dearden, L., Harron, K., Nasim, B., & Gilbert, R. (2017). Factors associated with re-entry to out-of-home care among children in England. Child Abuse & Neglect, 63, 73–83. https://doi.org/10.1016/j.chiabu.2016.11.012

Mikulincer, M., Shaver, P. R., & Pereg, D. (2003). Attachment theory and affect regulation: The dynamics, development, and cognitive consequences of attachment-related strategies. Motivation and Emotion, 27, 77–102. https://doi.org/10.1023/A:1024515519160

Morris, K. (2013). Troubled families: Vulnerable families’ experiences of multiple service use. Child and Family Social Work, 18, 198–206. https://doi.org/10.1111/j.1365-2206.2011.00822.x

Moss, E., Dubois-Comtois, K., Cyr, C., Tarabulsy, G. M., St-Laurent, D., & Bernier, A. (2011). Efficacy of a home-visiting intervention aimed at improving maternal sensitivity, child attachment, and behavioral outcomes for maltreated children: A randomized control trial. Development and Psychopathology, 23, 195–210. https://doi.org/10.1017/S0954579410000738

Reith, W., Hofman, R., Stams, G. J. J. M., & Van Yperen, T. A. (2008). Hulpverleningsdoelen categoriseren met de Doelenboom. Ontwikkeling van een categorieënsysteem voor hulpverleningsdoelen in een jeugdzorginstelling [Categorization of treatment objectives with the “Goal-tree.” Development of a categorization-system for treatment objectives in a youth care institute]. Kind en Adolescent, 29, 221–234. https://doi.org/10.1007/BF03076764

Schout, G., Meijer, E., & De Jong, G. (2017). Family Group Conferencing—Its added value in mental health care. Issues in Mental Health Nursing, 38, 480–485. https://doi.org/10.1080/01612840.2017.1282996

Shaw, T. V. (2006). Reentry into the foster care system after reunification. Children and Youth Services Review, 28, 1375–1390. https://doi.org/10.1016/j.childyouth.2006.02.006

Shi, Z., Bureau, J. F., Easterbrooks, M. A., Zhao, X., & Lyons-Ruth, K. (2012). Childhood maltreatment and prospectively observed quality of early care as predictors of antisocial personality disorder features. Infant Mental Health Journal, 33, 55–96. https://doi.org/10.1002/imhj.20295

Sousa, L., & Eusébio, C. (2007). When multi-problem poor individuals’ myths meet social services myths. Journal of Social Work, 7, 217–237. https://doi.org/10.1177/1468017307080828

Sroufe, L. A. (1988). The role of infant-caregiver attachment in development. In J. Belsky & T. Nezworski (Eds.), Child psychology. Clinical implications of attachment (pp. 18–38). Hillsdale, NJ: Erlbaum.

Tausendfreund, T., Knot-Dickscheit, J., Schulze, G. C., Knorth, E. J., & Grietens, H. (2016). Families in multi-problem situations: Background, characteristics and care services. Child and Youth Services, 37, 4–22. https://doi.org/10.1080/0145935X.2015.1052133

Tausig, N. H., Clyman, R. B., & Landsverk, J. (2001). Children who return home from foster care: A 6-year prospective study of behavioral health outcomes in adolescence. Pediatrics, 108, 1–7. doi:10.1542/peds.108.1.e10

Tereno, S., Madigan, S., Lyons-Ruth, K., Plamondon, A., Atkinson, L., Guedeney, N., ... Guedeney, A. (2017). Assessing a change mechanism in a randomized home-visiting trial: Reducing maternal disrupted communication decreases infant disorganization. Development and Psychopathology, 29, 637–649. https://doi.org/10.1017/S0954579417000232

Thompson, R. A. (1999). Early attachment and later development. In J. Cassidy & P. R. Shaver (Eds.), Handbook of attachment: Theory, research, and clinical applications (pp. 265–286). New York, NY: Guilford Press.

Tilbury, C., & Osmond, J. (2006). Permanency planning in foster care: A research review and guidelines for practitioners. Australian Social Work, 59, 265–280. https://doi.org/10.1080/03124070600833055

Tully, L. (2008). Literature review: Family preservation services. Ashfield, Australia: Centre for Parenting and Research. Retrieved from http://www.community.nsw.gov.au/docs/wrf/assets/main/documents/research_familypreservation_review.pdf

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, 225–250. https://doi.org/10.1017/S0954579499002035

Vischer, A.-F. W. K., Grietens, H., Knorth, E. J., & Mulder, H. (2017). Assessing parenting in the context of reunification of infant/toddlers and their families: How to face the challenges? Infant Mental Health Journal, 38, 406–421. https://doi.org/10.1002/imhj.21646

Vischer, A. W. K. (2013). Stand van zaken van ‘Gezond Terug’ december 2013: Assessment van ouderschap [The state of affairs regarding ‘Healthy Back’ December 2013: Assessment of parenthood] (Internal report). Groningen, The Netherlands: University of Groningen.
Waterhouse, L., & McGhee, J. (2009). Anxiety and child protection—Implications for practitioner-parent relations. *Child and Family Social Work, 14*, 481–490. https://doi.org/10.1111/j.1365-2206.2009.00631.x

Wilkins, M., & Farmer, E. (2015). *Reunification: An evidence-informed framework for return home practice*. London, United Kingdom: NSPCC. Retrieved from https://www.nspcc.org.uk/services-and-resources/research-and-resources/2015/reunification-framework-return-home-practice/

How to cite this article: Vischer A-FWK, Post WJ, Grietens H. Knorth EJ, Bronfman E. Development of atypical parental behavior during an inpatient family preservation intervention program. *Infant Ment Health J*. 2020;41:5–23. https://doi.org/10.1002/imhj.21823