

Attachment-facilitating interactions in non-kin foster families

Nuria Molano  | Esperanza León  | Jesús M. Jiménez-Morago  |
Maite Román  | Cristina Murillo

Department of Developmental and Educational Psychology, University of Seville, Seville, Spain

Correspondence

Nuria Molano, Department of Developmental and Educational Psychology, University of Seville, Camilo José, Cela, Seville 41018, Spain.
Email: nmolano@us.es

Abstract

This study aims to analyse the interaction between children in foster care and their main caregivers during a microcoded co-construction task, focusing on the verbal and non-verbal behaviours that the adults use to promote a secure attachment in the child. It also examines how children and caregivers' socio-demographic variables relate to the interaction. The sample is made up of 28 Spanish children between 4 and 9 years old in long-term non-kin foster care and their foster families. The building task was administered to 28 dyads, composed of the child and the main caregiver in each family. Our results showed that the caregivers' use of attachment-facilitating behaviours was frequent during the interaction. Moreover, children tended to display a positive attitude when adults used these attachment-facilitating behaviours. We also found some differences in the interaction according to the caregivers and children's age, the child's gender and the caregivers' satisfaction with the child's development. These results offer us a better understanding of the functioning of the adult-child relationships in foster families, which helps us make more efficient interventions to improve the caregivers' sensitivity towards the children's needs and difficulties.

KEYWORDS

attachment-facilitating behaviour, caregiver-child interactions, co-construction task, long-term foster care, non-kin foster families

1 | INTRODUCTION

Family foster care is the main alternative that the Spanish Child Protection System offers to those children who suffered from early adverse experiences, such as maltreatment or abuse (Jiménez-Morago & Palacios, 2008). To that extent, children are separated from their birth families and are placed into kin or non-kin families that take care of their development (Amorós & Palacios, 2004). The Spanish Law 26/2015 on the Modification of the Child Protection System includes three types of family foster care according to their purpose: emergency foster care, where the child can stay with the foster family up to 6 months; temporary foster care—up to 2 years; and long-term—up to legal age. In the latter modality, children are not expected to go back to their families of origin. Recent official data from the Spanish Government show that there are 36,531 children under the

assistance of the Spanish Child Welfare System: 17,527 in residential care; 12,748 in kin foster care; and 6,256 in non-kin foster care (Observatorio de la Infancia, 2018).

These children suffered a series of physical, psychological or sexual abuse experiences that led them to be separated from their parents (Jiménez-Morago & Palacios, 2008). As many of them did not have the opportunity to grow up in a family that provided them with the unconditional affection and care that every child needs (Ainsworth, 1979; Bowlby, 1973; Schofield & Beek, 2006), their placement within a new family is preferred to the institutional alternative (Carrera, Jiménez-Morago, León, & Viedma, 2016; Nowacki & Schoelmerich, 2010). In contrast to family care, it is difficult to build secure and stable relationships in residential care due to the absence of a main caregiver (Jiménez-Morago & Palacios, 2008). There is national and international evidence of the larger presence of physical,

cognitive, emotional and psychosocial problems in institutionalized children, in comparison with those in family foster care (see Berens & Nelson, 2015; Fernández-Molina, del Valle, Fuentes, Bernedo, & Bravo, 2011; Jiménez-Morago, León, & Román, 2015; Lionetti, Pastore, & Barone, 2015; Nowacki & Schoelmerich, 2010; Pollak et al., 2010; van IJzendoorn et al., 2011). Thus, foster families offer children a better and faster chance at recovery by providing them with stable and individualized care, affection, security and stimulation (López, Montserrat, del Valle, & Bravo, 2010).

Notwithstanding, among the children that are placed into family-based alternatives, those in non-kin foster care tend to be older, have more previous placement transitions and present more behavioural problems, which may hinder the adaptation to a new family context (Jiménez-Morago et al., 2015; Jiménez-Morago & Palacios, 2008). In contrast, children fostered by their relatives tend to be younger, present less disruptive behaviours and have no more than one transition (Montserrat, 2014). On the other hand, non-kin foster parents usually have more positive psychosocial profiles than kinship carers: higher educational level, more stimulating homes, larger social support networks and better strategies to cope with stress (Jiménez-Morago & Palacios, 2008; Montserrat, 2014). All caregivers must pass a suitability assessment, and they are trained by professionals before taking any child into their homes. Later on, they require protocolized monitoring (Amorós, Palacios, Fuentes, León, & Mesas, 2003; Palacios, 2014). Bringing together the families' initial resources, the specialized training for the fostering task and the latter supervision, there is an attempt to ensure as much as possible that non-kin caregivers will be able to cope with the child's potential difficulties. Unfortunately, breakdowns in non-kin foster care are more frequent than in other alternatives, especially in the long-term modality. Some factors are especially associated with these unsuccessful placements: difficulty in emotional bonding, behavioural problems and family violence (Palacios, Jiménez-Morago, & Paniagua, 2015), along with insufficient monitoring and long-term support (Palacios et al., 2015; Tonheim & Iversen, 2018). In order to avoid future breakdowns, it is necessary to gain insight into foster families' dynamics (Carrera et al., 2016; Jiménez-Morago, León, & Algeciras, 2018; Ottaway & Selwyn, 2016), and Spain is a particularly suitable context for such a study, as some fields are still unexplored, such as the relationship between the caregiver and the child.

As mentioned above, one of the cornerstones of a successful placement is a good bonding between the child and the caregiver. This positive, healthy and close relationship is created from the daily interactions between them, but it is sometimes difficult to establish due to the child's past experiences. From what is known from the study of interactions in normative families, a sensitive, stable, coordinated and positive pattern of interaction between the adult and the child at an early stage promotes a secure attachment representation in the latter, once the child is able to internalize these experiences (Beebe, 2005; Beebe et al., 2010; Beebe & Steele, 2013; Jaffe, Beebe, Feldstein, Crown, & Jasnow, 2001). Unfortunately, most of the children in protection contexts missed this positive pattern of interaction within their family of origin and consequently developed an insecure

attachment pattern (Amorós et al., 2003; Ponciano, 2010; Schofield & Beek, 2006), which limits the establishment of new, positive and secure relationships with their caregivers (Carrera et al., 2016; Dallos, Morgan-West, & Denman, 2014; Dozier & Bernard, 2017). This is frequently reflected in a rejection of the caregiver or when the children behave as if they do not need their new carer (Bovenschen et al., 2016).

Despite the difficulties of overcoming insecure patterns of attachment, especially on the representational level (Bovenschen et al., 2016), some national and international studies with adoptive families show that the new family context can instigate some secure attachment indicators in these children thanks to better quality interactions (Hodges, Steele, Hillman, Henderson, & Kaniuk, 2003; Palacios, Román, Moreno, León, & Peñarrubia, 2014; Román, Palacios, Moreno, & López, 2012; Steele et al., 2007). Other international studies offer the same evidence with foster care families. Some authors point out that internal working models are not completely rigid but can turn into a more secure pattern, provided that new caregivers interact sensitively with their foster children (Ponciano, 2010), even when they start living together at older ages or when they have complex emotional needs (Dallos et al., 2014; Joseph, O'Connor, Briskman, Maughan, & Scott, 2013; Nowacki & Schoelmerich, 2010).

Because the information regarding caregivers' influence on their foster children comes from international research, we need to explore this aspect in depth with national samples (Carrera et al., 2016). In this study, we chose a micro-analytic methodology to analyse the interactions between children in long-term non-kin foster care and their main caregivers. This methodology seeks to record behaviour in small time segments to carry out a detailed quantitative analysis. In particular, we based on previous studies with adoptive families that followed this kind of analysis, which consists of observing and recording a series of behaviours in 10-s segments from a videotaped joint construction task between the adult and the child (León, Román, Marín, Moreno-Maldonado, & Palacios, 2013; León, Steele, Palacios, Román, & Moreno, 2018; Steele et al., 2007). It was found that adoptive parents frequently use behaviours that facilitate a secure attachment in their children, such as a positive voice tone or a supportive touch. Also, some of their results revealed that displaying these behaviours was higher in adoptive dyads than in a community comparison group (Cáceres, León, Marín, Román, & Palacios, 2016). The variables they selected as attachment-facilitating behaviours were based on the previously mentioned studies of Beebe, Jaffe and colleagues.

Given that long-term foster care is the most similar measure to adoption in terms of length and that foster parents are prepared to be consciously proactive, responsive and sensitive to the children's needs (Berrick & Skivenes, 2012), we expect to find similar results in our research. Nevertheless, the results obtained from the study of parent-child interactions in adoption samples (Beijersbergen, Juffer, Bakermans-Kranenburg, & van IJzendoorn, 2012; Cáceres et al., 2015; Rueter, Keyes, Iacono, & McGue, 2009; Stams, Juffer, & van IJzendoorn, 2002) cannot be completely generalized to foster care. Even though in both alternatives the child and the new caregivers are

biologically unrelated, these two measures do not share the same nature: In foster care, caregivers do not become the child's parents—they do not even share a legal bond—and many of these children maintain contact with their family of origin. Those aspects, in addition to foster children's difficulties, like psychosocial adjustment problems, can negatively influence the establishment of optimal relationships and interactions within the foster family (Dallos et al., 2014).

In light of the relevance of exploring the adult-child interactions in foster families, our aims in the present study were (a) to examine the presence of attachment-facilitating behaviours in the caregivers during a joint construction task with the children, as well as the relationship between these variables and other behaviours shown by the caregivers during the interaction; (b) to observe the interaction between caregivers' attachment-facilitating behaviours and the children's verbal, non-verbal and global codes; and (c) to analyse how the quality of the interaction could be related to the caregivers and children's socio-demographic characteristics, to the families' satisfaction with the children's development under their care and to some of the children's protection record variables.

2 | METHOD

2.1 | Participants

A total of 28 dyads from Seville (Andalusia, Spain) participated in the study, which were composed of a child in non-kin long-term foster care and his or her main caregiver. In terms of gender, 17 girls made up 60.71% of the sample, whereas 11 boys made up the remaining 39.29%. Their ages ranged from 4 to 9 years old, with an average age of almost 8 years old ($M = 93.96$ months; $SD = 15.96$). The mean time they had been in the current placement was around 3 years ($M = 37.50$ months; $SD = 28.45$), where they arrived when they were, on average, 4 and a half years old ($M = 54.64$ months; $SD = 30.55$). There was a large variety in the age of arrival, from 2 months to 8 years old.

Moreover, 50% of the children had only been in a previous placement, 25% had been in two and 10.71% in three, whereas for the remaining 14.29%, this was their first foster placement. The majority had been in family foster care (41.66%), and the rest had been in residential care (29.17%) or in both kinds of placements (29.17%).

Main caregivers' age ranged from 31 to 55 years old ($M = 43.86$; $SD = 6.63$), and they were mostly women (75%). The highest percentage of them (42.85%) had a medium educational level—high school or vocational training—and many (35.71%) had a high educational level—university studies.

Regarding the families' structure and composition, six of them were single-parent families (21.42%), and 22 were two-parent (78.58%). The second caregiver from the two-parent families was 42.73 years old on average ($SD = 5.15$), and the majority had medium (36.36%) and high (40.91%) educational level. Almost half of the families (53.57%) did not have any biological children, and the rest (46.43%) had from one to three.

2.2 | Instruments

Different assessment instruments were used for this study, which adopted a cross-sectional approach.

2.2.1 | Socio-demographic and protection record variables

The information about children and caregivers' socio-demographic aspects was assessed through a starting questionnaire that was completed by the caseworkers who collaborated with the families at foster care organizations. Furthermore, it collects information about the characteristics of the foster care placement and the child's experience in the Child Protection System. Other variables, such as the child's adaptation and development within the family or the foster family's motivation, needs and satisfaction, were assessed through a semi-structured interview, which was administered to the caregivers. This interview contained open questions as well as Likert-scale items.

2.2.2 | Caregiver-child interaction

The interaction between the caregiver and the child was observed through *Co-Construction Task* (Steele et al., 2007; Steele, D'Agostino, & Blom, 2005). In this task, the adult and the child are given a series of wooden building blocks with different shapes, sizes and colours. Next, the experimenter gives the following instruction: 'I would like you to build something using as many of these blocks as you can. I am going to leave you alone to build for five minutes.' Then, the building task is videotaped, and the children and caregivers' verbal and non-verbal contents are coded dichotomously—presence or absence—in 10-s segments (Steele & Steele, 2007).

For each adult and child, 17 codes are assessed: Nine are verbal, and eight are non-verbal. Verbal codes include, for example, vocal expressions, responses to questions or using the child's name. Non-verbal codes refer to patterns of touch, gestures or facial expressions, among others. Apart from these, some global ratings—seven from the caregivers, six from the children and four from the dyad—are also coded through a Likert scale from 0 (*none*) to 3 (*almost always*). For instance, some global codes are the caregiver's controlling behaviour or the child's attention to the task. The dyad's variables are the child and carer's rhythmicity and coordination during the task, their level of creativity, the global quality of the interaction and the way they do the task—together or separately. These verbal, non-verbal and global behaviours can also be divided into positive and negative codes. Among positive behaviours, we can find the use of a positive voice tone or some supportive patterns of touch. On the contrary, negative variables are those that reflect tension or annoyance, for example, negative facial expressions or a controlling attitude.

In a further classification, some positive behaviours can also be related to the promotion of a secure attachment, so that they reflect

the adult's sensitivity towards the child and facilitate the establishment of a positive and secure bond between them (Cáceres et al., 2016; Oropesa, 2015; Rueter et al., 2009; Steele et al., 2007). Following previous studies, eight adult behaviours during the interaction will be identified as attachment-facilitating: (1) positive facial expression—for example, smiling; (2) supportive patterns of touch—for example, stroking; (3) positive vocal expression—for example, upward intonation; (4) use of the child's name; (5) asking questions/making suggestions; (6) use of the pronoun *we* or *us*; (7) use of positive reinforcement; and (8) reference to shared experiences—for example, references to other family members.

Finally, two coders were trained by two researchers who got accredited on this instrument at *The Center for Attachment Research* (University of New York). Inter-rater agreement was measured by Cohen's kappa coefficient, which was high in most of the contents—between 0.73 and 1 in caregivers and children's verbal and non-verbal codes—and over 0.5 for global codes and the dyad's ratings.

2.3 | Procedure

This study belongs to a larger research project entitled 'Socio-emotional and cognitive development of children in foster care. Adversity, family processes and adaptation.' It aims to analyse, for the first time in Spain, foster children's cognitive and emotional development, foster families' profile and functioning and the relationships between these foster children and their caregivers. It was carried out under the regional authorities, foster care associations and foster families' permission. First, an informed consent, the authorization from the Andalusian Biomedical Research Ethics Coordinating Committee and the permission from the Andalusian Child Protection authorities was necessary to access the families' information. Once obtained, the Andalusian Child Protection authorities requested the collaboration of two family foster care organizations: Márgenes y Vínculos Foundation and APRONI Foundation.

In the earliest stage of the project, we selected the instruments and the sample that was going to be used. The criteria for selecting the sample were the following: children between 4 and 9 years old, without severe disability, who had already been living with their current foster family for at least 5 months. However, because of

the difficulties in finding this kind of sample, we exceptionally decided to include a family that was close to 5 months of living with the foster child.

For this work, we used two sources of information: foster care professionals and family home visits, which lasted from 2–3 h on average. Caseworkers from the two participating foster care organizations provided us with some information about the foster placements. After contacting each family by phone call, two trained psychologists administered the battery of instruments at the family's home, including the *Co-Construction Task*. Afterwards, data codification and analysis were carried out.

2.4 | Data analysis

All the statistical analyses were done by SPSS-24. After obtaining the frequency and the descriptive statistics of central tendency and variability from the *Co-Construction Task* codes, bivariate Pearson correlations, Student's *t* tests and Cohen's *d* were used to analyse their relationship with the rest of the explored caregivers and children's variables.

3 | RESULTS

3.1 | Caregivers' attachment-facilitating behaviours

The first objective of this study was to examine the presence of attachment-facilitating behaviours in the main caregiver during the interaction with the child in care. Descriptive statistics of central tendency and variability can be observed in Table 1.

After analysing the relationship between the eight variables by Pearson correlation coefficient, we observed that all the variables had a significant positive relationship with at least one of the other included variables and that the effect size was medium or large in all the cases ($r \geq .24$ and $r \geq .37$, respectively, according to Cohen, 1988, 1992) (Table 2).

We also wanted to explore the correlation between these behaviours and the caregiver's variables that are related to a negative attitude during the interaction: avoidance of physical proximity; negative

TABLE 1 Descriptive statistics of caregivers' attachment-facilitating behaviours

	N	Minimum	Maximum	M	SD
Positive facial expression	28	1	26	9.96	7.1
Supportive patterns of touch	28	0	3	0.64	1.1
Positive vocal expression	28	4	30	21.18	7.42
Use of the child's name	28	0	8	2.32	2.44
Asking questions/making suggestions	28	6	25	16.68	5.06
Use of the pronoun <i>we</i> or <i>us</i>	28	1	22	10.50	5.67
Use of positive reinforcement	28	0	11	3.68	3.02
Reference to shared experiences	28	0	5	0.61	1.17

TABLE 2 Correlation between attachment-facilitating behaviours

	2	3	4	5	6	7	8
1.Positive facial expression	.30	.38 [*]	.18	-.21	-.14	.09	.03
2.Supportive patterns of touch	-	.51 ^{**}	.56 ^{**}	.06	.34	.51 ^{**}	.09
3.Positive vocal expression	-	-	.27	.07	.26	.38 [*]	-.12
4.Use of the child's name	-	-	-	.02	.23	.40 [*]	-.07
5.Asking questions/making suggestions	-	-	-	-	.63 ^{**}	.31	.50 ^{**}
6.Use of the pronoun <i>we</i> or <i>us</i>	-	-	-	-	-	.36	.40 [*]
7.Use of positive reinforcement	-	-	-	-	-	-	.32
8.Reference to shared experiences	-	-	-	-	-	-	-

^{*} $p < .05$.

^{**} $p < .01$.

facial expression; non-supportive patterns of touch; negative quality of demeanour; and control. We found that the variable 'supportive patterns of touch' had a negative correlation to 'negative quality of demeanour' ($r = -.42$; $p < .05$). Also, 'positive vocal expression' had a negative correlation to 'negative vocal expression' ($r = -.47$; $p < .05$) and to 'negative quality of demeanour' ($r = -.64$; $p < .01$). These correlations were statistically significant and had a large effect size.

At the same time, those variables referring to the caregiver's negative attitude during the task presented a significant positive correlation between them. Concretely, 'negative quality of demeanour' was positively related to 'negative facial expression' ($r = .60$; $p < .01$), as well as to 'negative vocal expression' ($r = .83$; $p < .01$), both with a very large effect size. The latter variable also had a direct relationship with 'non-supportive patterns of touch' ($r = .64$; $p < .01$), and the effect size was large.

3.2 | Relationship between caregivers' attachment-facilitating behaviours and children's verbal, non-verbal and global codes

Our second objective was to analyse the relationship between the main caregivers' attachment-facilitating behaviours and the children's behaviours during the interaction. We found that every attachment-facilitating behaviour had a significant positive correlation to at least one of the child's variables. These correlations were directly proportional between variables that are related to a positive attitude. For instance, the caregiver's positive facial expression had a direct relationship with the child's looking behaviour towards the caregiver ($r = .42$; $p < .05$) and with the child's positive facial expression ($r = .41$; $p < .05$), both with large effect sizes.

On the contrary, the caregiver's attachment-facilitating behaviours were inversely proportional to the child's negative behaviours during the task; for example, the caregiver's use of positive reinforcement and the child's negative vocal expression had a significant negative correlation ($r = -.44$; $p < .01$). Thirdly, the use of the child's name had a significant negative correlation to the child's control during the interaction ($r = -.45$; $p < .05$), and the use of the pronoun *we* or *us*

was inversely proportional to the child's global negative behaviour ($r = -.44$; $p < .05$). All these correlations presented a large effect size.

3.3 | Relationship between interaction codes, socio-demographic variables, the child's protection record and the satisfaction with the child's progress

Our third objective consisted of finding out whether the interaction variables had any relationship with the main caregivers' level of studies, age, number of dependent children or satisfaction with the children's progress from the beginning of the foster care until the present day. It also consisted of exploring any relationships between the interaction codes and the following children's variables: (1) age; (2) gender; (3) time in the Child Protection System; (4) number of previous placements; (5) duration of previous placements; and (6) time they had spent at the current foster care placement. We found that the caregivers and the child's age, as well as the child's gender, were the variables that presented a significant relationship with some caregivers and children's behaviours during the interaction, along with the families' level of satisfaction with the children's progress since the beginning of the foster care. This last variable, which was rated from 1 (*very unsatisfying*) to 5 (*very satisfying*), refers to how favourable they perceived the child's social, cognitive and emotional development in general terms and how well their relationship had unfolded.

Caregiver's age was positively related to the child's global negative behaviour ($r = .45$; $p < .05$) and controlling behaviour ($r = .41$; $p < .05$). It was inversely proportional to the following caregiver's codes: seeking approach to the child ($r = -.41$; $p < .05$), positive global behaviour ($r = -.41$; $p < .05$) and encouraging behaviour ($r = -.47$; $p < .05$). It also had a negative correlation to the dyad's rhythmicity ($r = -.49$; $p < .05$) and quality ($r = -.46$; $p < .05$). All these correlations were significant and had large effect sizes.

The child's age had a significant negative correlation to the caregiver's encouraging behaviour ($r = -.53$; $p < .01$) and positive vocal expression ($r = -.46$; $p < .05$) and to the dyad's creativity ($r = -.48$; $p < .05$), the three of them having a large effect size. It must be underlined that caregivers and children's ages were not significantly

correlated. Also, there were significant differences, with a large effect size ($d > .80$, according to Cohen, 1988), between caregivers, children and dyad's variables according to the child's gender (Table 3).

In relation to the caregivers' level of satisfaction with the child's progress, most of them expressed they were very satisfied (67.9%). This level of satisfaction was positively associated, with a large effect size, to the caregiver's positive facial expressions ($r = .50$; $p < .01$) and positive global behaviour ($r = .51$; $p < .01$) and to the dyad's rhythmicity and creativity (respectively, $r = .39$; $p < .05$ and $r = .40$; $p < .04$).

Lastly, we did not find any significant relationships between the caregiver's level of studies or number of dependent children and the child or caregiver's interaction variables. Similarly, the children's variables concerning their protection record were unrelated to the adult or child interaction codes. These variables were not significantly correlated to the child's age either.

4 | DISCUSSION

After analysing the presence of attachment-facilitating behaviours in the caregivers' interaction during the *Co-Construction Task*, we can conclude that these are an important part of the foster families' dynamics. We need to highlight the appearance of some of them, such as a positive voice tone when speaking to the child, the use of the first-person plural instead of the first-person singular and the formulation of questions and suggestions. These behaviours have a reinforcing effect on the relationship between the caregiver and the child (Beebe, 2005; Beebe et al., 2010; Steele et al., 2007). For example, when the caregiver pronounces the child's name during the interaction, he or she is promoting the child's self-identity. Likewise, when the caregivers use the plural tense to describe some actions, the child's sense of belonging to the family is being enhanced (Steele et al., 2007). This last example is especially important given that most of the children from our sample had experienced more than one transition since they were separated from their birth family. Considering

their early adversity, having found that caregivers are responsive and sensitive implies that their foster children have the opportunity to use them as the secure base they lacked before (Bovenschen et al., 2016; Dallos et al., 2014). Therefore, finding these positive adult-child dynamics confirms that the assessment and training of the foster families regarding this aspect seem to be successful and generally bring the expected results (Amorós et al., 2003; Palacios, 2014).

Moreover, caregivers do not only use attachment-facilitating behaviours, but they do it frequently and coherently. Our first results show that they are emphasizing various aspects at the same time that promote the establishment of a positive relationship between them, such as fostering a positive attitude, involving the children in the task, showing interest in their opinions, making suggestions and wishes or verbally reinforcing their behaviours. Previous studies with adoptive samples found that adoptive parents make greater use of attachment-facilitating behaviours, in comparison with normative families. For instance, they continuously involved the children in the task and stimulated them through questions and positive reinforcement. There was also a direct correlation between these behaviours, indicating the existence of a positive behavioural pattern during the interaction (Cáceres et al., 2016; León et al., 2013; Oropesa, 2015). Thus, foster caregivers' interactive profile seems to become closer to the adoptive families' one, which might be explained by the fact that they also need to build the relationship *ex novo* (Ponciano, 2012). Nevertheless, even though caregivers generally show a positive attitude during the interaction, we also observed that those who make the lowest use of attachment-facilitating behaviours are also the ones that show more negative verbal and non-verbal behaviours, such as in previous studies (Steele et al., 2007). In these cases, some alternatives for intervention will be discussed at the end of this section.

Secondly, knowing that the quality of the interaction depends on what both the child and the caregiver bring to the interaction (Ponciano, 2010; Steele et al., 2007), we explored caregivers' codes in relation to the children's behaviour. In our dyads, caregivers' behaviour is frequently congruent with the children's behaviour during the

TABLE 3 Contrast analysis and effect size between boys and girls

		Boys		Girls		Cohen's <i>d</i>	Student's <i>t</i>
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Caregiver's variables	Positive facial expression	5.91	2.63	12.59	7.94	1.12	3.21**
	Negative facial expression	2.27	1.95	0.65	1.22	0.99	2.72*
	Supportive touch	0.18	0.60	0.94	1.25	0.77	2.15*
	Positive vocal expression	15.64	8.09	24.76	4.16	1.41	3.46**
	Negative vocal expression	4.73	5.12	0.82	1.07	1.05	2.49*
	Positive global behaviour	2.18	0.75	2.82	0.39	1.07	2.61*
	Negative global behaviour	0.82	0.60	0.12	0.33	1.44	3.97**
Child's variables	Positive facial expression	10.36	4.78	15.71	6.81	0.91	2.26*
Dyad's variables	Rhythmicity	2.45	0.93	3.29	0.77	0.98	2.59*
	Quality	2.36	0.81	3.24	0.56	1.26	3.37**

* $p < .05$.

** $p < .01$.

task. When the child uses negative expressions, the caregiver tends to use them too or vice versa. For instance, a negative attitude of the child, including the rejection towards the caregivers, commonly upsets them and can turn their responses more negative or distant. Once this negative loop takes place, it complicates the establishment of a positive relationship between them (Bovenschen et al., 2016; Dozier & Bernard, 2017; Steele et al., 2007).

Regarding the influence of socio-demographic aspects on the interaction, we found significant correlations between the child's gender, both child and caregiver's age and the quality of the interaction. The caregivers' satisfaction with the children's progress also showed significant correlations with some interaction codes. On the contrary, the caregiver's level of studies, their number of dependent children and other variables related to the child's experience at the Child Protection System did not show any significant correlations to the quality of the interaction. The lack of significant relationships between some of these variables does not seem surprising because previous studies demonstrate that there is no consensus regarding the influence of socio-demographic characteristics on the new family relationships (Bovenschen et al., 2016; Dallos et al., 2014). Due to the wide variety of life trajectories that these children present and the difficulty to systematize these aspects, our results will be discussed cautiously.

We found that the older the caregiver and the child are, the more negative an attitude the adult displays, along with less encouraging behaviour. Likewise, children tend to behave more negatively when the caregiver is older. Both also show less creativity during the task when the child is older. Their ages did not correlate; that is, older foster parents were not taking care of older children and vice versa, so these results cannot be further explained by younger or older dyads. These results should not mean that we can argue against foster care as the most appropriate alternative for these children. As we are aware of the disadvantages of residential care (Berens & Nelson, 2015; Fernández-Molina et al., 2011) and we know that these families are functioning well in other aspects, our response to these findings must be providing older caregivers with more resources to face potential interaction difficulties, especially in the long-term alternative.

About the child's age, previous studies also relate older children with more difficulties in different aspects (Jiménez-Morago et al., 2015) and specifically in the interaction with their new foster parents (Ponciano, 2012). These authors consider that it is not age itself that brings more difficulties but the accumulation of past adversity. In our sample, the child's age does not correlate with the time they have been in the current permanent foster care or previous placements. That means that the older children in our sample have not necessarily had a more stable family referent than younger children or that they have been under the assistance of the Child Protection System for more years. This lets us think that some of them might have experienced a longer period of maltreatment or adversity within their family of origin.

Another finding was that the interaction during the task was more positive in those dyads composed of a girl instead of a boy. Although children's gender differences in dyadic interaction are

currently underexplored and most of the studies about this topic do not include this aspect, some authors have found differences between boys and girls, favouring the latter, concerning the quality of the interaction (Oropesa, 2015) or to the support and autonomy given by the parent (Bovenschen et al., 2016). Undoubtedly, we should make further exploration in this aspect, because our results also point out that the quality of the caregivers' behaviour is influenced by the child's gender.

Our last results showed that most of the caregivers were highly satisfied with the children's developmental progress and their relationships with the family members during the foster care placement. Other studies have found a similar percentage of high satisfaction when exploring this variable (León, 2012). The finding of positive and significant relationships between this aspect and positive behaviours during the interaction invites us to place importance on and gain insight into the families' perspective and feelings towards the unfolding of the caregiving process.

Nonetheless, our study has some limitations. Firstly, we are aware of our small sample size, which was also limited to a specific age range. Secondly, the sample was restricted to only one modality of fostering as is long-term foster care. Additionally, we do not have a comparison group. Another limitation concerns the scarce literature about interactions in foster care and the available studies used samples with foster children from a different age range (see Joseph et al., 2013).

In contrast to these limitations, we must consider that it is the first study where the *Co-Construction Task* is applied to a foster care sample. Despite having a small sample, which is a common limitation in this field, finding a medium and large effect size in our correlations implies that we would probably find the same results if we had more participants.

For future studies, we seek to include data from other foster care modalities, such as emergency foster care and short-term foster care. Also, it will be interesting to provide comparisons of the observed interactions between foster families and a community sample, as well as interactions between these and adoptive dyads. Further research will also be aimed at exploring shorter time fragments from our records would allow us to analyse behavioural contingencies between the caregiver and the child during the interaction by employing sequential measures (as examples of this methodology, see Beebe et al., 2010; Bornstein & Manian, 2013; Cohn & Tronick, 1988; Feldman, 2007).

In conclusion, non-kin foster care is a successful protection measure and a great resource for children's recovery, because it tries to cover their affective and material needs at the same time (López et al., 2010). This measure is based on offering a stable and positive relationship to a child whose development trajectory has been characterized by inadequate attachment figures (Bovenschen et al., 2016; Joseph et al., 2013). In our sample, we found high-quality and sensitive caregiver-child interactions with frequent use of attachment-facilitating behaviours. Our study contributes to thinking of foster families as an affective and emotional development of children who were once in vulnerable situations.

In the case of those dyads whose communication is impaired by negative responses, it is fundamental to work with foster parents to

facilitate their awareness of the risks of following this pattern of interaction (Steele et al., 2007). Although caregivers are trained to be sensitive and patient towards the children's difficulties, sometimes these can generate feelings of helplessness or failure when the caregivers do not know how to deal with the child's negative and rejecting behaviour (Dallos et al., 2014; Dozier & Bernard, 2017). Following our results, an important step in intervention could be that professionals make use of the detailed observational methodology to help foster parents identify their children's negative reactions, as well as their own negative ones, to guide them towards a more positive and sensitive attitude (Steele et al., 2007). Some authors demonstrate the benefits of video-observation and feedback interventions for foster, adoptive and at-risk families, together with parental coaching, to promote their sensitivity and responsiveness (see Bernard et al., 2012; Bick & Dozier, 2013; Cyr et al., 2012; Yarger, Bernard, Caron, Wallin, & Dozier, 2019). Crucial areas where professionals intervene include easing the children's resistance or rejection towards the carers, along with improving these carers' ability to behave affectively and attentively even when the child does not seem to need it (Dozier & Bernard, 2017; Ponciano, 2010). These kinds of interventions, targeted at foster caregivers, are not currently implemented in our context. However, we suggest that their adaptation in order to be carried out by professionals from local foster care organizations might be feasible. It would be an efficient means to support some families (López et al., 2010) and prevent major difficulties or even retirements (Palacios et al., 2015; Ponciano, 2010; Tonheim & Iversen, 2018).

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

ORCID

Nuria Molano  <https://orcid.org/0000-0002-6760-3899>

Esperanza León  <https://orcid.org/0000-0002-6972-6681>

Jesús M. Jiménez-Morago  <https://orcid.org/0000-0001-7282-1375>

Maite Román  <https://orcid.org/0000-0003-1174-2504>

REFERENCES

- Ainsworth, M. D. S. (1979). Infant-mother attachment. *American Psychologist*, 34(10), 932–937. <https://doi.org/10.1037/0003-066X.34.10.932>
- Amorós, P., & Palacios, J. (2004). *Acogimiento Familiar [in Spanish]*. Madrid: Alianza Editorial.
- Amorós, P., Palacios, J., Fuentes, N., León, E., & Mesas, A. (2003). *Familias canguro: Una experiencia de protección a la infancia [in Spanish]* (pp. 1–261). Barcelona: Fundación “la Caixa”.
- Beebe, B. (2005). Mother-infant research informs mother-infant treatment. *Psychoanalytic Study of the Child*, 60, 7–46. <https://doi.org/10.1080/00797308.2005.11800745>
- Beebe, B., Jaffe, J., Markese, S., Buck, K., Chen, H., Cohen, P., ... Feldstein, S. (2010). The origins of 12-month attachment: A microanalysis of 4-month mother-infant interaction. *Attachment & Human Development*, 12(0), 3–141. <https://doi.org/10.1080/14616730903338985>
- Beebe, B., & Steele, M. (2013). How does microanalysis of mother-infant communication inform maternal sensitivity and infant attachment? *Attachment & Human Development*, 15(0), 1–18. <https://doi.org/10.1080/14616734.2013.841050>
- Beijersbergen, M. D., Juffer, F., Bakermans-Kranenburg, M., & van IJzendoorn, M. H. (2012). Remaining or becoming secure: Parental sensitive support predicts attachment continuity from infancy to adolescence in a longitudinal adoption study. *Developmental Psychology*, 48, 1277–1282. <http://doi.org/10.1037/a0027442>
- Berens, A. E., & Nelson, C. A. (2015). The science of early adversity: Is there a role for large institutions in the care of vulnerable children? *Lancet*, 386, 388–398. [https://doi.org/10.1016/S0140-6736\(14\)61131-4](https://doi.org/10.1016/S0140-6736(14)61131-4)
- Bernard, K., Dozier, M., Bick, J., Lewis-Morrarty, E., Lindhiem, O., & Carlson, E. (2012). Enhancing attachment organization among maltreated children: Results of a randomized clinical trial. *Child Development*, 83(2), 623–636. <https://doi.org/10.1111/j.1467-8624.2011.01712.x>
- Berrick, J. D., & Skivenes, M. (2012). Dimensions of high quality foster care: Parenting Plus. *Children and Youth Services Review*, 34, 1956–1965. <https://doi.org/10.1016/j.childyouth.2012.05.026>
- Bick, J., & Dozier, M. (2013). The effectiveness of an attachment-based intervention in promoting foster mothers' sensitivity toward foster infants. *Infant Mental Health Journal*, 34(2), 95–103. <https://doi.org/10.1002/imhj.21373>
- Bornstein, M. H., & Manian, N. (2013). Maternal responsiveness and sensitivity reconsidered: Some is more. *Development and Psychopathology*, 25, 957–971. <https://doi.org/10.1017/S0954579413000308>
- Bovenschen, I., Lang, K., Zimmermann, J., Förthner, J., Nowacki, K., Roland, I., & Spangler, G. (2016). Foster children's attachment behaviour and representation: Influence of children's pre-placement experiences and foster caregiver's sensitivity. *Child Abuse & Neglect*, 51, 323–335. <https://doi.org/10.1016/j.chiabu.2015.08.016>
- Bowlby, J. (1973). *Attachment and loss: Vol. 2. Separation: Anxiety and anger*. Nueva York: Basic Books.
- Cáceres, I., León, E., Marín, C., Román, M., & Palacios, J. (2016). Conductas facilitadoras del apego en las interacciones parento-filiales y función reflexiva parental en familias adoptivas [in Spanish]. *Apuntes de Psicología*, 34(2–3), 311–320.
- Carrera, P., Jiménez-Morago, J. M., León, E., & Viedma, I. (2016). La investigación en acogimiento familiar: de la descripción a los procesos de adaptación y desarrollo [in Spanish]. *Apuntes de Psicología*, 34(2–3), 77–86.
- Cohen, J. (1992). A power primer. *Psychological Bulletin*, 112, 155–159. <http://10.1037/0033-2909.112.1.155>
- Cohen, J. (1988). *Statistical power analysis for the Behavioural sciences* (2nd ed.). Hillsdale, NJ: Erlbaum.
- Cohn, J. F., & Tronick, E. (1988). Mother-infant face-to-face interaction: Influence is bidirectional and unrelated to periodic cycles in either partner's behavior. *Developmental Psychology*, 24(3), 386–392. <http://doi.org/10.1037//0012-1649.24.3.386>
- Cyr, C., Dubois-Comtois, K., Geneviève, M., Poulin, C., Pascuzzo, K., Losier, V., ... Moss, E. (2012). Attachment theory in the assessment and promotion of parental competency in child protection cases. In A. Muela (Ed.), *Child Abuse and Neglect – A Multidimensional Approach*. <https://doi.org/10.5772/48771>
- Dallos, R., Morgan-West, K., & Denman, K. (2014). Changes in attachment representations for young people in long-term therapeutic foster care. *Clinical Child Psychology and Psychiatry*, 20, 589–599. <https://doi.org/10.1177/1359104514543956>
- Dozier, M., & Bernard, K. (2017). Attachment and biobehavioural catch-up: Addressing the needs of infants and toddlers exposed to inadequate or problematic caregiving. *Current Opinion in Psychology*, 15, 111–117. <https://doi.org/10.1016/j.copsyc.2017.03.003>
- Feldman, R. (2007). Parent-infant synchrony and the construction of shared timing: physiological precursors, developmental outcomes, and

- risk conditions. *Journal of Child Psychology and Psychiatry*, 48(3–4), 329–354. <https://doi.org/10.1111/j.1469-7610.2006.01701.x>
- Fernández-Molina, M., del Valle, J., Fuentes, M. J., Bernedo, I. M., & Bravo, A. (2011). Problemas de conducta de los adolescentes en acogimiento pre-adoptivo, residencial y con familia extensa [in Spanish]. *Psicothema*, 23(1), 1–8.
- Hodges, J., Steele, M., Hillman, S., Henderson, K., & Kaniuk, J. (2003). Changes in attachment representations over the first year of adoptive placement: Narratives of maltreated children. *Clinical Child Psychology and Psychiatry*, 8, 351–367. <https://doi.org/10.1177/1359104503008003006>
- Jaffe, J., Beebe, B., Feldstein, S., Crown, C., & Jasnow, M. (2001). Rhythms of dialogue in early infancy. *Monographs of the Society for Research in Child Development, Series 264*, 66(2), 1–132. <https://doi.org/10.1111/1540-5834.00137>
- Jiménez-Morago, J. M., León, E., & Algeciras, C. (2018). Parental sense of competence among non-kin foster carers from Spain. *Children and Youth Services Review*, 94, 437–445. <https://doi.org/10.1016/j.childyouth.2018.07.030>
- Jiménez-Morago, J. M., León, E., & Román, M. (2015). Adversity and adjustment in children in institutions, family foster care and adoption. *The Spanish Journal of Psychology*, 18(45), 1–10. <https://doi.org/10.1017/sjp.2015.49>
- Jiménez-Morago, J. M., & Palacios, J. (2008). *El acogimiento familiar en Andalucía. Procesos familiares, perfiles personales* [in Spanish]. Junta de Andalucía: Consejería para la Igualdad y Bienestar Social.
- Joseph, M. A., O'Connor, T. G., Briskman, J. A., Maughan, B., & Scott, S. (2013). The formation of secure new attachments by children who were maltreated: An observational study of adolescents in foster care. *Development and Psychopathology*, 26, 67–80. <https://doi.org/10.1017/S0954579413000540>
- León, E. (2012). *La reunificación familiar tras el acogimiento: Una aproximación psicosocial desde la perspectiva de niños y niñas, familias biológicas y familias de acogida* [in Spanish]. Madrid: Editorial Académica Española.
- León, E., Román, M., Marín, C., Moreno-Maldonado, C., & Palacios, J. (2013, July). Co-Construction Task: A Comparative and Longitudinal Analysis of Parent-Child Interactions in Adoptive Families. Paper presented at Fourth International Conference on Adoption Research, Bilbao, Spain.
- León, E., Steele, M., Palacios, J., Román, M., & Moreno, C. (2018). Parenting adoptive children: Reflective functioning and parent-child interactions. A comparative, relational and predictive study. *Children and Youth Services Review*, 95, 352–360. <https://doi.org/10.1016/j.childyouth.2018.11.009>
- Ley 26/2015, de 28 de julio, de Modificación del Sistema de Protección a la Infancia y a la Adolescencia. *Boletín Oficial del Estado*, núm. 180, pp. 64544 a 64612 [in Spanish].
- Lionetti, F., Pastore, M., & Barone, L. (2015). Attachment in institutionalized children: a review and meta-analysis. *Child Abuse & Neglect*, 42, 135–145. <https://doi.org/10.1016/j.chiabu.2015.02.013>
- López, M., Montserrat, C., del Valle, J. F., & Bravo, A. (2010). El acogimiento en familia ajena en España. Una evaluación de la práctica y sus resultados [in Spanish]. *Infancia Y Aprendizaje*, 33(2), 269–280. <https://doi.org/10.1174/021037010791114616>
- Montserrat, C. (2014). Kinship care in Spain: messages from research. *Child & Family Social Work*, 19(3), 367–376. <http://doi.org/10.1111/cfs.12028>
- Nowacki, K., & Schoelmerich, A. (2010). Growing up in foster families or institutions: Attachment representation and psychological adjustment of young adults. *Attachment & Human Development*, 12, 551–566. <https://doi.org/10.1080/14616734.2010.504547>
- Observatorio de la Infancia. (2018). Boletín de datos estadísticos de medidas de protección a la infancia. Boletín número 20. Datos 2017. Ministerio de Sanidad, Servicios Sociales e Igualdad [in Spanish].
- Oropesa, N. F. (2015). *Análisis del contexto familiar en la adopción: características psicológicas de los padres y madres y procesos de relación entre padres e hijos* [in Spanish]. University of Seville, Spain: Unpublished dissertation.
- Ottaway, H., & Selwyn, J. (2016). 'No-one told us it was to be like this': Compassion fatigue and foster carers. *Bristol: Fostering Attachments. University of Bristol*, 1–22. <http://doi.org/10.13140/RG.2.2.33955.45606>
- Palacios, J. (2014). *Valoración de idoneidad para el acogimiento familiar* [in Spanish]. Junta de Andalucía: Consejería de Igualdad, Salud y Políticas Sociales.
- Palacios, J., Jiménez-Morago, J. M., & Paniagua, C. (2015). *Rupturas en adopción y acogimiento familiar en Andalucía* [in Spanish]. University of Seville, Spain: Unpublished manuscript.
- Palacios, J., Román, M., Moreno, C., León, E., & Peñarribia, M. (2014). Differential plasticity in the recovery of adopted children after early adversity. *Child Development Perspectives*, 3(8), 169–174. <https://doi.org/10.1111/cdep.12083>
- Pollak, S. D., Nelson, C. A., Schlaak, M. F., Roeber, B. J., Wewerka, S. S., Wiik, K. L., ... Gunnar, M. R. (2010). Neurodevelopmental effects of early deprivation in postinstitutionalized children. *Child Development*, 81(1), 224–236. <https://doi.org/10.1111/j.1467-8624.2009.01391.x>
- Ponciano, L. (2010). Attachment in Foster Care: The Role of Maternal Sensitivity, Adoption, and Foster Mother Experience. *Child and Adolescent Social Work Journal*, 27, 97–114. <http://doi.org/10.1007/s10560-010-0192-y>
- Ponciano, L. (2012). The Influence of Perception on Maternal Sensitivity in Foster Care. *Child & Youth Services*, 33(1), 70–85. <https://doi.org/10.1080/0145935X.2012.665325>
- Román, M., Palacios, J., Moreno, C., & López, A. (2012). Attachment representations in internationally adopted children. *Attachment and Human Development*, 14(6), 585–600. <https://doi.org/10.1080/14616734.2012.727257>
- Rueter, M. A., Keyes, M. A., Iacono, W. G., & McGue, M. (2009). Family interactions in adoptive compared to nonadoptive families. *Journal of Family Psychology*, 23(1), 58–66. <http://doi.org/10.1037/a0014091>
- Schofield, G., & Beek, M. (2006). *Attachment Handbook for Foster Care and Adoption*. London: British Association for Adoption and Fostering.
- Stams, G. J., Juffer, F., & van IJzendoorn, M. H. (2002). Maternal sensitivity, infant attachment, and temperament in early childhood predict adjustment in middle childhood: The case of adopted children and their biologically unrelated parents. *Developmental Psychology*, 38, 806–821. <http://doi.org/10.1037//0012-1649.38.5.806>
- Steele, M., D'Agostino, D., & Blom, I. (2005). *The co-construction coding manual: Verbal and non-verbal behaviour*. Unpublished manuscript.
- Steele, M., Hodges, J., Kaniuk, J., Steele, H., D'Agostino, D., Blom, I., ... Henderson, K. (2007). Intervening with maltreated children and their adoptive families. In D. Oppenheim & D. Goldsmith (Eds.), *Attachment theory in clinical work with children: Bridging the gap between research and practice* (pp. 58–89). New York: The Guildford Press.
- Steele, M., & Steele, H. (2007). *Co-construction coding scheme manual*. Nueva York: The Center for Attachment Research.
- Tonheim, M., & Iversen, A. C. (2018). We felt completely left to ourselves. *Foster parents' Views on Placement Disruption. Child & Family Social Work*, 24, 90–97. <http://doi.org/10.1111/cfs.12585>
- van IJzendoorn, M. H., Palacios, J., Sonuga-Barke, E. J. S., Gunnar, M. R., Vorria, P., McCall, R. B., ... Juffer, F. (2011). Children in institutional care: Delayed development and resilience. *Monographs of the Society for Research in Child Development*, 76(4), 8–30. <https://doi.org/10.1111/j.1540-5834.2011.00626.x>
- Yarger, H. A., Bernard, K., Caron, E. B., Wallin, A., & Dozier, M. (2019). Enhancing parenting quality for young children adopted internationally: Results of a randomized controlled trial. *Journal of Clinical Child & Adolescent Psychology*, 00(00), 1–13. <https://doi.org/10.1080/15374416.2018.1547972>

How to cite this article: Molano N, León E, Jiménez-Morago JM, Román M, Murillo C. Attachment-facilitating interactions in non-kin foster families. *Child & Family Social Work*. 2021;26:70–78. <https://doi.org/10.1111/cfs.12790>