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Adopted Children's Social Competence: The Interplay Between Past and Present Influences

Objective: *To explore potential postadoption moderators of the link between preadoption experiences and adoptees' social competence.*
Background: *In the context of the limited and inconsistent knowledge about adopted children's social competence, our hypotheses concern the interplay between preadoption parental neglect and adoptive parents' emotion socialization practices.*
Method: *With adopters as informants, the social competence of 97 Portuguese school-age children was evaluated in terms of social skills and competing problem behaviors, using the Social Skills Improvement System-Rating Scale. Children's preadoption experiences (using a sociodemographic questionnaire) and parental emotion socialization (evaluated by the Coping with Children's Negative Emotions Scale) were also assessed.*
Results: *Time since adoption and unsupportive adoptive parents' responses moderated the relationship between preadoption parental neglect and adoptees' social skills. Unsupportive adoptive parents' responses exacerbated the effects of preadoption neglect. This moderation was stronger with longer postadoption time.*
Conclusion: *Added to preadoption parental neglect, unsupportive adoptive parenting accentuates the risks for adoptees' social competence.*
Implications: *Adoptive parents should be informed that socialization practices concerning children's negative emotions are associated with adopted children's social competence.*

The socioemotional development of adoptees is particularly interesting as a group due to the contrast between adversity experienced before the adoptive placement and positive experiences in their adoptive families (Palacios & Brodzinsky, 2010). Many studies have been designed to analyze the negative effects of early adversity on physical, cognitive, and behavioral development, as well as the catch-up processes triggered by the new family environment (e.g., van IJzendoorn & Juffer, 2006), but much less is known about how pre- and postadoption socioemotional experiences interact to shape adoptees' social functioning, particularly their social competence. This study was designed to examine the link between preadoption neglect and adoptees' social competence, by testing the moderating role of both adoptive parents' emotion socialization practices (supportive and unsupportive parenting) and the length of the adoptive parent–child relationship.

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Key Words: adopted children, emotion socialization, parental neglect, problem behaviors, social competence, social skills.

Background

Social Competence Among Adopted Children

Social competence has been conceptualized as an evaluative term based on others' judgments about the performance of social tasks (Gresham, 1986, 2016). Social skills are the building blocks for children's social competence and the basis of those judgments. As part of this conceptualization, social skills can be influenced or blocked by problem behaviors (e.g., the ability to make new friends can be hampered by social withdrawal behaviors). Within this framework, the operationalization and assessment of social competence should consider both dimensions: social skills and their competing problem behaviors (Gresham, 2016).

Research about adoptees' social skills is limited and inconsistent, and sometimes even contradictory. Some studies indicate that, compared with their nonadopted peers, school-age adoptees show lower social skills (e.g., Caprin, Benedan, Ballarin, & Gallace, 2017). Others report more similarities than differences between adoptees and nonadoptees compared with institutionalized children (e.g., Palacios, Moreno, & Román, 2013). Still others have observed developmentally typical (Glennen & Bright, 2005) or higher (Tan & Camras, 2011) social skills in adopted children. Also, a cross-sectional study (Julian & McCall, 2016) identified higher social skills in children than in adolescents, whereas a longitudinal study (Sonuga-Barke, Schlotz, & Kreppner, 2010) reported increases in social problems from 6 to 11 years of age.

Palacios et al. (2013) suggested methodological reasons to explain these research inconsistencies, as different studies use diverse social dimensions, instruments, samples, and informants. For example, some refer mainly to social skills (e.g., Tan & Camras, 2011), whereas others focus on problems with peers (e.g., Sonuga-Barke et al., 2010). In addition, international adoptees have been studied, with contradictory findings depending on the country of origin (Glennen & Bright, 2005; Julian & McCall, 2016; Sonuga-Barke et al., 2010; Tan & Camras, 2011). Participants' age at the time of assessment has also differed, ranging from kindergarten to secondary school (Julian & McCall, 2016). In an attempt to overcome the challenges these methodological differences and their mixed findings present, in this study, we consider both social skills and problem behaviors in a sample of domestic Portuguese adoptees whose age is relatively homogeneous (8–10 years).

Regarding adopted children's problem behaviors, research findings have been more consistent. Meta-analyses have identified a higher presence of problem behaviors in adoptees than nonadoptees, with more incidence of externalized than of internalized difficulties (Askeland et al., 2017; Juffer & van IJzendoorn, 2005).

Preadoption-related influences. In Portugal, parental neglect is the most prevalent form of child maltreatment within the birth family (experienced by 71% of the children who are placed in out-of-home care; National Institute of Social Security, 2018). Parental neglect has detrimental effects on children's social outcomes because parents persistently fail to meet their children's physical, educational, social, and emotional needs (Hildyard &Wolfe, 2002). However, the impact of early parental neglect on adopted children's social competence has received limited attention from researchers (cf. Tan, 2006).

When parental neglect is followed by institutionalization, structural neglect is frequently involved, adding another risk factor for children (van IJzendoorn et al., 2011). In Portugal, 97% of children in out-of-home care are placed in institutional care (National Institute of Social Security, 2018). Although these institutions meet children's basic needs and protect them from parental abuse, they are inadequate in providing a consistent and responsive caregiving environment (Rodrigues & Barbosa-Ducharne, 2017). This aspect is key for socioemotional development, particularly for social competence, as attested by the postinstitutionalized children's problems with indiscriminate social behavior (Soares et al., 2014) and social withdrawal (Baptista et al., 2013).

The child's age at adoption placement is one of the most important variables in adoption research (e.g., Juffer & van IJzendoorn, 2005) and it is an indicator of the length of exposure to early adversity. The child's age at adoption has been negatively correlated to adoptees' social skills (Julian & McCall, 2016; Tan & Camras, 2011) and positively to problem behaviors (Merz & McCall, 2010).

Postadoption-related influences. Once placed in adoptive families, children show marked

developmental improvements (van IJzendoorn & Juffer, 2006). However, there is limited knowledge of the processes that may promote or inhibit children's recovery pathways. In the social competence domain, research using nonadoption samples has identified parents' emotion socialization practices as a key contributor (Eisenberg, Fabes, & Murphy, 1996).

Parental management of the child's emotions provides opportunities for the child to observe, learn, and experience emotions (Morelen, Shaffer, & Suveg, 2016). Through modeling, coaching, and contingent responsiveness, parental emotion socialization contributes to emotion outcomes (expression, understanding, and regulation), which in turn are assumed to influence children's social competence (McDowell, Kim, O'Neil, & Parke, 2002). In nonadoption research, supportive parental responses have been associated with better parental and teacher ratings of school-age children's social skills, whereas unsupportive responses have been linked to lower social skills and more problem behaviors (Alves & Cruz, 2011; Baker, Fenning, & Crnic, 2011; Eisenberg et al., 1996). In adoption research, Herrera (2014) showed that unsupportive responses by adoptive parents contribute to externalizing problems in postinstitutionalized intercountry adoptees. However, although research has shown that the adoptive family environment is associated with adoptees' control and understanding of emotions (Garvin, Tarullho, van Ryzin, & Gunnar, 2012; Soares, Barbosa-Ducharne, Palacios, & Pacheco, 2017), the impact of parental emotion socialization, particularly supportive and unsupportive parental responses, on the adoptees' social skills has not been studied. It is also in this context that the relevance of length of the adoptive parent–child relationship, as a measure of exposure to the new caregiving context, needs to be considered.

Moderating role of postadoption parenting. Adoption research has shown that past and present experiences interact in complex ways. Pitula, DePasquale, Milner, and Gunnar (2017) indicated that early institutional deprivation predicts problems with peers only in the context of low adoptive parenting quality. The moderating role of parenting quality has also been seen in the relationships between accumulative preadoption risks and adoptees' adaptive behavior (Kriebel & Wentzel, 2011) as well as indiscriminate friendliness (Garvin et al., 2012). Herrera (2014) ascertained the moderating role of unsupportive adoptive parents' responses in the link between some adoptee characteristics and his or her externalizing problems.

The Present Study

This study was developed with a sample of Portuguese children adopted from care within an age-restricted range of 8 to 10 years. The development of social competence begins in infancy, but it is essentially in the school setting and during middle childhood that skills learnt at home are put into practice in social interactions with peers. Aiming to contribute to a better understanding of school-age adopted children's social competence, in this study, we explored both pre- and postadoption predictors and also considered the interplay between past and present influences. Within preadoption influences, we were particularly interested in parental neglect due to scant research with adoptees and because most Portuguese children in out-of-home care had been neglected by their birth families (National Institute of Social Security, 2018). As a key postadoption influence, we considered adoptive parents' emotion socialization practices, particularly how parents respond to their children's negative emotions, a consideration that is nearly absent in adoption research. Furthermore, we recognized the importance of the length of the adoptive parent–child relationship.

On the basis of the aforementioned research evidence, we predict the following:

> H1: More preadoption adversity (existence and longer length of neglectful experiences in the birth family, more time spent in out-of-home care before adoption, and older age at adoption placement) will statistically predict adoptees' lower social competence (fewer social skills and more competing problem behaviors). We expect that the length of institutionalization will be an added risk on top of adversity in the birth family.
>
> H2: Higher supportive, lower unsupportive parental responses and longer adoptive parent–child relationships will statistically predict adoptees' higher social competence (more social skills and less problem behaviors). We expect that postadoption experiences will predict social competence over and above the studied preadoption experiences.
>
> H3: Adoptive parents' emotion socialization practices and time since adoption will be individual

moderators of the link between preadoption parental neglect and adoptees' social competence (social skills and problem behaviors). We expect that supportive parental responses act as protective factors by mitigating the negative effect of preadoption parental neglect on adoptees' social competence, whereas unsupportive adoptive parents' responses intensify this negative effect. Additionally, we expect that this moderating role of parental responses (supportive and unsupportive) is stronger as the time after adoption increases. In addition to more supportive or unsupportive parenting, we expect that a longer time since adoption buffers or exacerbates, respectively, this relationship.

Method

Procedures

These data are part of a broader adoption study approved by the Ethics Committee of the University of Porto and the National Board of Data Protection. A close collaboration with the National Adoption Agency allowed for the selection of adoptive families according to two criteria: (a) adoptees between 8 and 10 years of age and (b) at least a year after adoptive placement. All families in the most populated district in Northern Portugal who met the inclusion criteria were contacted. The final study sample ($N = 125$) represented 74.9% of all potential families (the remaining refused to participate or could not be reached due to outdated contact information). The present sample ($N = 97$) corresponds to the participants from whom we have full information on the studied variables. Adoption professionals made the first contact with families. Data collection was conducted at each family home by trained interviewers, who safeguarded all ethical principles and the participants' confidentiality. The father and the mother answered the questionnaires individually and separately. Each parent signed an informed consent for voluntary participation and, as usual in Portugal, did not receive any financial compensation.

Participants

The adoptive parents of 97 Portuguese families (86 different-sex two-parent families and 11 single mothers) participated in this study. As is the case with all adoptions in Portugal, the adoptive parents were unrelated to the children they adopted. Parents were 36 to 59 years of age ($M = 45.4$, $SD = 4.4$), and they had between 2 and 23 years of formal schooling ($M = 12.4$, $SD = 4.4$). These parents (all Caucasian) adopted 97 Portuguese children (96% Caucasian), including 58 boys (59.8%) and 39 girls (40.2%), all 8 to 10 years of age ($M = 8.7$, $SD = 0.8$) at the time of the study. Children were domestically adopted from the public child welfare system between 0.2 and 8.0 years of age ($M = 3.1$, $SD = 2.2$), and at the time of assessment, they had been in their adoptive families between 1.0 and 9.4 years ($M = 5.6$, $SD = 2.2$). Before adoption, they had spent between 0 and 75.0 months ($M = 15.3$, $SD = 19.6$) with their birth families, and, according to adoptive parents, 44 children (45.4%) had suffered experiences of neglect with their birth parents (vs. 53 children without preadoption parental neglect experiences). Out of the 53 children without neglect experiences, 40 had no living experiences with their birth families because they had been placed in out-of-home care immediately after birth, and 13 had suffered other kinds of negative experiences while living with their birth families (e.g., physical abuse). Additionally, as is typical in Portugal (National Institute of Social Security, 2018), 90.7% of the adoptees in the sample ($n = 88$) were placed in institutional care before adoption compared with 9.3% ($n = 9$) who were in foster families. Regardless of placement type, the children had spent between 1.0 and 60.0 ($M = 22.0$, $SD = 14.5$) months in out-of-home care before adoption.

Measures

Adoptees' social competence (dependent variable, DV). The child's social competence was evaluated with the parent form of the Social Skills Improvement System-Rating Scales (SSIS-RS; Gresham & Elliott, 2008a), which includes two scales. The social skills scale (46 items: e.g., "Makes eye contact when talking," "Questions rules that may be unfair," "Makes friends easily," "Resolves disagreements with you calmly"; $\alpha = .96$ in this study) includes communication, cooperation, assertion, responsibility, empathy, engagement, and self-control skills. The problem behaviors scale (31 items: e.g., "Has temper tantrums," "Bullies others," "Acts without thinking," "Withdraws from others"; $\alpha = .93$) includes externalization, bullying, hyperactivity/inattention, internalization, and

autism-related behaviors. Each parent indicated how often the child showed each skill and behavior, with response options ranging from *never* (scored as 0) to *almost always* (3). Total scores represent the sum of all the items (46 for social skills; 31 for problem behaviors), with higher scores indicating more social skills (maximum raw score: 138) and more problem behaviors (maximum: 93). In the absence of Portuguese norms, raw scores were used to compare our findings with original norms (for the same age group and using sex-combined norms). In Gresham and Elliott (2008b), mean raw scores ($-1\ SD < M < +1\ SD$) ranged from 80 to 117 for social skills and from 4 to 29 for problem behaviors.

Child's preadoption experiences (independent variables, IVs). The child's past was operationalized through (a) having (or not having) experienced neglect within the birth family, (b) time lived within the birth family, (c) time spent in out-of-home care before adoption, and (d) the child's age at adoption placement (time in birth family plus time in out-of-home care). This information was obtained from the adoptive parents using a sociodemographic questionnaire. Preadoption parental neglect as it was assessed in this study refers to the lack of supervision and family monitoring; exposure to deviant parental models; and failure in providing for the child's development in all its domains, including health, education, socioemotional development, nutrition and safety.

Adoptive parents' responses to child's negative emotions (IVs). Parental responses to negative emotions was evaluated using the 72-item Coping with Children's Negative Emotions Scale (CCNES; Fabes, Eisenberg, & Bernzweig, 1990). It includes 12 hypothetical scenarios of a child's daily or common activity that evoke negative emotions (e.g., "If my child falls off his/her bike and breaks it, and then gets upset and cries … ") followed by six parental reactions to each scenario (e.g., "I would remain calm and not let myself get anxious," "I would comfort my child and try to get him/her to forget about the accident") that represent distinct ways of coping with the child's negative emotions. Response options for each item ranged from *very unlikely* (1) to *very likely* (7).

The six parental reactions assessed correspond to the six subscales of CCNES. Three of them (problem-focused, emotion-focused, and expressive encouragement) form the positive/supportive responses scale ($\alpha = .96$, in this study) and correspond, respectively, to the degree to which parents help their children find solutions for their problems, respond with strategies that help their children feel better, and accept and encourage children's expression of negative emotions. The others (minimization, punitive, and distress) form the negative/unsupportive responses scale ($\alpha = .95$) and correspond to what extent parents minimize/devaluate children's negative emotions, respond with punitive reactions to control the expression of children's negative emotions, and feel distress when their children express negative emotions. As in Fabes et al. (1990), mean response scores were calculated within each subscale across the 12 items. Although widely used (Johnson, Hawes, Eisenberg, Kohlhoff, & Dudeney, 2017), to our knowledge, there are no available norms for CCNES. Supportive and unsupportive parental responses and the length of the adoptive parent–child relationship were the variables that characterized the child's postadoption-related experiences.

Data Analyses

Data were analyzed using the IBM SPSS Statistics for Windows v24. Results (for parents' responses to children's negative emotions and parents' reports of adoptees' social competence) were explored using the mean score of mothers and fathers combined (when both were available). This was done given (a) the aim of analyzing parents' emotion socialization practices as an adoptive family variable; (b) strong correlations between mothers and fathers in the evaluation of their children's social competence (social skills, $r = .76$, $p < .001$; problem behaviors, $r = .76$, $p < .001$); (c) moderate to strong correlations between mothers and fathers in their responses to the children's negative emotions (supportive responses, $r = .37$, $p = .001$; unsupportive responses, $r = .56$, $p < .001$); and (d) the higher reliability of variables when using the mean score of both parents ($.93 < \alpha < .96$) compared with individual mother and father variables ($.86 < \alpha < .94$).

Neither univariate normality violations nor extreme outliers were found in the data. Given that the 3.5% of missing values regarding adoptee's social skills can be ignored (Kline,

2011), mean substitution was used to deal with these incomplete data (Hawthorne & Elliott, 2005). Cohen's (1988) effect size interpretation benchmarks were followed. Preliminary to the main analyses, descriptive statistics and Pearson's bivariate correlations were performed.

To test the pre- and postadoption predictors of adoptees' social skills and problem behaviors, two multiple linear regressions were calculated. These data met numerous assumptions for this analysis: normal distribution, error homogeneity (graphically validated), error independence (acceptable Durbin Watson figures: 1.66 and 1.78), and non-multicollinearity (validated with figures of tolerance and variance inflation factors). Finally, moderations (interaction between IVs) and conditional effects were tested using the PROCESS macro for SPSS (Hayes, 2013), which calculates all the necessary products between variables, estimates the best-fitting ordinary least squares regression model, probes the interaction, and provides the conditional effects. In particular, Model 1 (simple moderations) and Model 2 (two additive moderators; Hayes, 2013) were tested. Each analysis used a bootstrapping approach with 5,000 resamples, and statistical significance was assessed using 95% bias-corrected confidence intervals (CIs). Unstandardized regression coefficients are reported.

A priori statistical power calculation using G*Power (Faul, Erdfelder, Lang, & Buchner, 2007)—based on an alpha (α) of .05, a beta (β) of .20, a medium effect size (f^2) of .15 (Cohen, 1988), and increasing from a baseline of five predictor variables (a simple moderation of time since adoption) to seven predictors (adding two additional moderators)—yielded a recommended sample size of 92. Our sample of 97 respondents provided sufficient power to detect an effect size (f^2) of .14 and larger.

Results

Descriptive and correlational statistics between DVs and pre- and postadoption IVs are presented as preliminary analyses to the regression models. The results obtained from the two hierarchical regressions (for pre- and postadoption predictions of social skills and problem behaviors), testing H1 and H2, are displayed. Finally, the test of moderations (H3) are presented, first exploring the three simple moderations of postadoption IVs (supportive or unsupportive responses and the time since adoption, separately) and then testing jointly two moderators (supportive or unsupportive responses and the time since adoption, additively).

Preliminary Analyses: Descriptive and Correlational Statistics

Descriptive statistics are presented in Table 1. For social skills, adoptees showed mean raw scores ($M = 103.6$, $SD = 16.5$) near the norm reported by Gresham and Elliott (2008b), and only 10.3% ($n = 10$) had raw scores more than 1 *SD* below the normed mean. For problem behaviors, adoptees also showed mean raw scores ($M = 29.2$, $SD = 12.7$) near the reported norm, although 47.4% ($n = 46$) scored more than 1 *SD* above the normed mean. There were no meaningful differences between two-parent and single-parent families.

Correlations between all study variables are also presented in Table 1. Social skills were statistically and positively correlated with children's age at time of assessment; that is, the older the children, the higher their social skills. For this reason, children's age was included in the hierarchical regression models as a covariate. In contrast, social skills were statistically and negatively correlated with preadoption parental neglect and with the time they spent in out-of-home care, showing that the less the time spent in out-of-home care, as well as the absence of neglect experiences, the higher the adoptees' social skills. In relation to postadoption experiences, social skills were statistically correlated with time since the adoption. Children who had been adopted longer tended to have a higher level of social skills.

Adoptees' problem behaviors were statistically and negatively correlated with the children's age, and age was therefore included in the problem behaviors model as a covariate just as it was in the social skills model. In relation to preadoption experiences, the only statistically significant correlation was a positive relationship between problem behaviors and time spent in out-of-home care. Finally, time since adoption was negatively, and unsupportive parenting was positively, correlated with problem behaviors.

Hierarchical Regressions Predicting Adopted Children's Social Competence (H1 and H2)

Two hierarchical regressions were carried out separately for social skills and problem

Table 1. *Descriptive Statistics and Correlations Among Study Variables (N = 97)*

	M	*SD*	Range	1	2	3	4	5	6	7	8	9	10
Covariates													
1. Child's current age (years)	8.7	0.8	8–10	—									
2. Child's gender (male)[a]	—	—	0, 1	–.02	—								
Predictor variables													
3. Time in birth family (months)	15.3	19.6	0–75	.30**	–.16	—							
4. Neglect experience within birth family[b]	—	—	0, 1	.23*	–.06	.68***	—						
5. Time in out-of-home care (months)	22.0	14.5	1–66	–.02	.15	.22*	.39***	—					
6. Age at adoption placement (years)	3.1	2.2	0.2–8.0	.22*	–.05	.85***	.72***	.69***	—				
7. Time since adoption (years)	5.6	2.2	1.0–9.4	.13	.04	–.77***	–.65***	–.70***	–.94***	—			
8. Supportive responses	5.1	0.9	2.3–6.5	.17	–.01	–.17	–.02	.02	–.12	.18	—		
9. Unsupportive responses	3.2	0.9	1.5–6.0	.09	–.09	–.10	–.18	–.01	–.07	.10	.37***	—	
Outcome variables													
10. Social skills	103.6	16.54	65–133	.32**	–.02	–.03	–.21*	–.22*	–.15	.26*	.19	–.11	—
11. Problem behaviors	29.2	12.8	4–69	–.33**	.10	–.04	.07	.31**	.14	–.26*	–.03	.24*	–.72***

Note. [a]Dummy variable (female = 0; male = 1). [b]Dummy variable (0 = without preadoption neglect, 1 = with preadoption neglect).
*$p < .05$. **$p < .01$. ***$p < .001$.

behaviors to test H1 and H2, respectively. The six predictors were sequentially entered into the models in four blocks or steps: (1) child's age, (2) child's preadoption parental neglect experience, (3) time spent in out-of-home care, and (4) postadoption experiences: supportive and unsupportive adoptive parents' responses and time since adoption. Parental neglect and time in out-of-home care were entered in different blocks to explore the impact of time in out-of-home care over and above the influence of the parental neglect (added risk). The child's age at adoption and time spent in the birth family were not included due to multicollinearity problems. Results are displayed in Tables 2 and 3.

In Step 1, the child's age was a statistically significant predictor of both social skills and problem behaviors, with older children found to have higher social skills and a lower degree of problem behaviors. In Step 2, preadoption parental neglect statistically enhanced the prediction of social skills over and above the child's age covariate, but the same was not true for problem behaviors. In Step 3, adding the time in out-of-home care indicated that more time in out-of-home care predicted more problem behaviors and statistically enhanced the overall prediction of problem behaviors (see Table 3; $\Delta R^2 = .08$) but not less social skills (see Table 2; $\Delta R^2 = .02$).

In the final step of the social skills model (Step 4), $F(6, 90) = 4.61$, $p < .001$, $R^2 = .24$, $\Delta R^2 = .08$, time since adoption was the only postadoption predictor that did not statistically enhance the prediction of social skills; both supportive and unsupportive parental responses did so. Recall from Table 1 that zero-order correlations for parental responses were not statistically significant; thus, the regression results can imply suppressor effects. Placing supportive ($_b$) and unsupportive ($_c$) responses together in the regression predicting social skills ($_a$), supportive responses strengthened to some extent the predictive force of the unsupportive ones, and vice versa. The zero-order correlation of unsupportive responses with social skills ($r = –.11$) was lower in magnitude than was its semipartial correlation ($r_{a(c.b)} = –.24$); the semipartial correlation of supportive responses ($r_{a(b.c)} = .21$) was also greater than the zero-order correlation ($r = .19$). In combination, these findings suggest that both supportive and unsupportive responses were suppressor variables, each one suppressing variance in the other and increasing R^2.

Table 2. *Hierarchical Multiple Regression Analysis for Predicting Adoptees' Social Skills* (N = *97*)

Step and predictor variables	R^2	ΔR^2	*B*	95% CI	*β*	*t*	*p*
Step 1	.10	.10					.001
Child's current age			6.95	[2.75, 11.15]	.32	3.29	.001
Step 2	.14	.04					.001
Neglect experience$^{(presence)}$			–6.65	[–13.09, –0.21]	–.20	–2.05	.043
Step 3	.16	.02					.001
Time in out-of-home care			–0.18	[–0.41, 0.06]	.16	–1.51	.135
Step 4	.24	.08					<.001
Time since adoption			–0.50	[–3.22, 2.21]	–.07	–0.37	.714
Supportive responses			4.54	[0.51, 8.56]	.24	2.24	.028
Unsupportive responses			–4.83	[–8.51, –1.15]	–.27	–2.60	.011

Note. Reference category in parentheses. CI = confidence interval for *B*.

Table 3. *Hierarchical Multiple Regression Analysis for Predicting Adoptees' Problem Behaviors* (N = *97*)

Step and predictor variables	R^2	ΔR^2	*B*	95% CI	*β*	*t*	*p*
Step 1	.11	.11					.001
Child's current age			–5.46	[–8.69, –2.23]	–.33	–3.35	.001
Step 2	.12	.01					.003
Neglect experience$^{(presence)}$			2.53	[–1.79, 8.25]	.13	1.28	.205
Step 3	.20	.08					<.001
Time in out-of-home care			0.27	[0.09, 0.45]	.31	3.04	.003
Step 4	.29	.09					<.001
Time since adoption			0.44	[–1.59, 2.46]	.07	0.43	.670
Supportive responses			–1.63	[–4.63, 1.36]	–.11	–1.08	.281
Unsupportive responses			5.46	[1.82, 7.30]	.33	3.31	.001

Note. Reference category in parentheses. CI = confidence interval for *B*.

In the final step of the problem behaviors model, $F(6, 90) = 6.04$, $p < .001$, $R^2 = .29$, $\Delta R^2 = .09$, unsupportive adoptive parenting ($\beta = .33$, $p = .001$) statistically predicted a higher degree of problem behaviors. The suppressor effect found with social skills was not found in this model.

Moderation Effects of Postadoption Experiences (H3)

Single moderation models. Using the PROCESS macro for SPSS, the interactions between preadoption neglect (the only non–time-related preadoption variable) and each postadoption variable (supportive adoptive parents' responses, unsupportive adoptive parents' responses, and time since adoption) were tested with social skills and problem behaviors as DVs. The child's age and time in out-of-home care were introduced as covariates in the three simple moderation tests. Furthermore, considering the reciprocal suppressor effect of the two types of parents' responses, each one was controlled in the moderation test of the opposite one.

In relation to the social skills' prediction, results showed that the model including supportive parental responses as a moderator was statistically significant, $F(6, 90) = 5.04$, $p < .001$, $R^2 = .25$. However, the interaction between neglect and supportive responses was not, $B = –5.51$, 95% CI [–13.07, 2.04], $t(96) = –1.45$, $p = .151$, thereby precluding a conclusion of moderation in this case with these data.

Regarding to the model including unsupportive responses as a moderator, $F(6, 90) = 5.54$, $p < .001$, $R^2 = .27$, the interaction between preadoption parental neglect and unsupportive adoptive parents' responses was statistically significant, $B = –7.61$, 95% CI [–14.81, –0.40], $t(96) = –2.10$, $p = .039$. Figure 1 shows that when unsupportive parenting was higher (1 *SD* above the mean; solid line), there was a negative

Figure 1. Single moderation of unsupportive parental responses. Slopes of unsupportive responses at the mean (*M*), as well as ±1 *SD* from the mean. Preadoption neglect (IV = independent variable) is on the *X*-axis and children's social skills is on the *Y*-axis (DV = dependent variable).

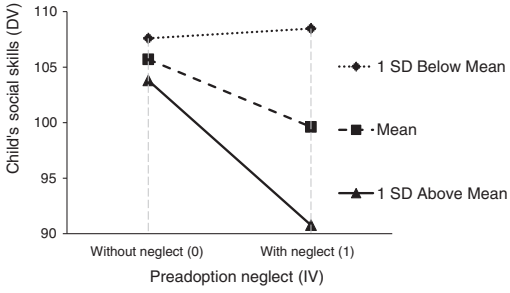
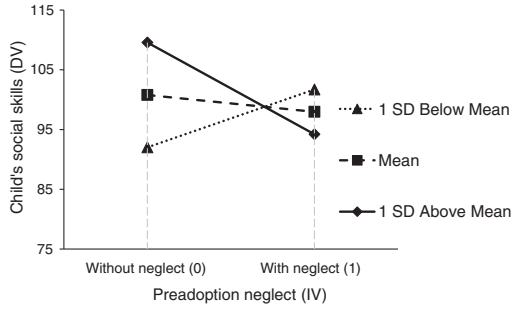


Figure 2. Single moderation of time since adoption. Slopes of time since adoption at the mean (*M*), as well as ±1 *SD* from the mean. Preadoption neglect (IV = independent variable) is on the *X*-axis and children's social skills is on the *Y*-axis (DV = dependent variable).



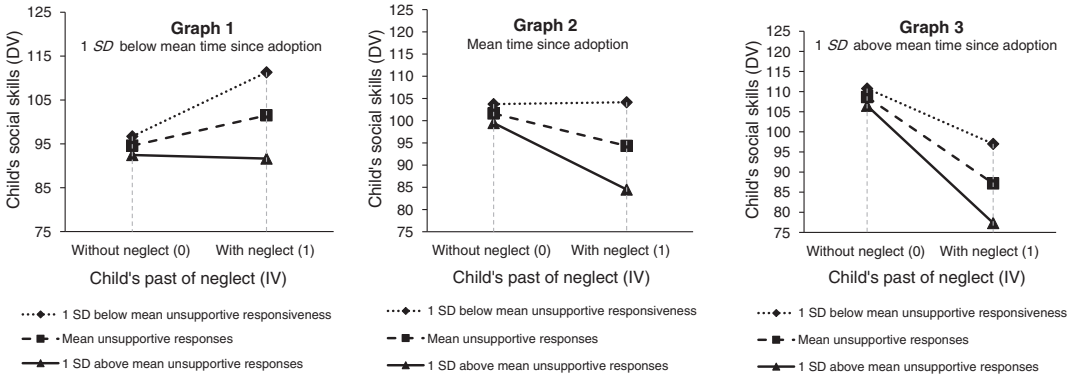
relationship between preadoption neglect and adoptees' social skills, $B = –13.04$, CI [–22.57, –3.50], $t(96) = –2.72$, $p = .008$. When unsupportive responses were at the mean level (dashed line), $B = –6.08$, CI [–12.87, 0.72], $t(96) = –1.78$, $p = .079$, or 1 *SD* below the mean (dotted line), $B = 0.88$, CI [–8.52, 10.27], $t(96) = 0.19$, $p = .853$, there was no statistically significant relationship between early neglect and current social skills. That is, among children exposed to unsupportive adoptive parenting 1 *SD* above the mean, those who had been neglected had a statistically lower degree of social skills than children who had not been neglected (see Figure 1).

In the model involving time since adoption as single moderator, $F(5, 91) = 5.50$, $p < .001$, $R^2 = .23$, the interaction between preadoption parental neglect and time since adoption was also statistically significant, $B = –5.75$, 95% CI [–9.71, –1.78], $t(96) = –2.88$, $p = .005$. That is, there was a negative relationship between preadoption neglect and adoptees' social skills, conditioned by time since adoption. In this case, the only statistically significant conditional effect was when time since adoption was 1 *SD* above the mean (solid line in Figure 2), $B = –15.35$, CI [–27.42, –3.28], $t(96) = –2.53$, $p = .013$. With more time within the adoptive family, social skills of children without past experiences of neglect were statistically higher than social skills of children with past experiences of neglect (see Figure 2). When time since adoption was at the mean level, $B = –2.83$, CI [–11.74, 6.08], $t(96) = –0.63$, $p = .530$, or 1 *SD* below the mean, $B = 9.70$, CI [–3.05, 22.44], $t(96) = 1.51$, $p = .134$, there was no statistically significant relationship between early neglect and current social skills.

In short, single moderations showed that (a) supportive parental responses did not affect the relationship between preadoption parental neglect and adoptees' social skills; (b) the relationship between preadoption parental neglect and adoptees' social skills was only statistically significant among those with higher unsupportive adoptive parenting; (c) the relationship between preadoption neglect and adoptees' social skills was only statistically significant among those for whom a relatively long time had passed since adoption, showing that time within the adoptive family was more positive for the social skills of children without preadoption neglect than it was for those with preadoption neglect. The relationship with preadoption parental neglect and problem behaviors was not statistically moderated by supportive or unsupportive adoptive parents' responses or time since adoption.

Two additive moderators model. Considering jointly the previous two statistically significant moderators (Model 2 in PROCESS), the double moderation was confirmed, $F(8, 88) = 6.21$, $p < .001$, $R^2 = .36$. Interactions between preadoption parental neglect and unsupportive parental responses, $B = –8.42$, 95% CI [–15.27, –1.57], $t(96) = –2.44$, $p = .017$, and

Figure 3. Two additive moderators' model: additive moderation of unsupportive parental responses and time since adoption. Slopes of unsupportive at the mean (*M*), as well as ±1 *SD* from the mean, across the three graphs. Graph 1 refers to 1 *SD* below mean time since adoption. Graph 2 refers to the mean time since adoption. Graph 3 refers to 1 *SD* above mean time since adoption. Preadoption neglect (IV = independent variable) is on the *X*-axis and children's social skills is on the *Y*-axis (DV = dependent variable).



preadoption neglect and time since adoption, $B = –6.51$, 95% CI [–10.20, –2.81], $t(96) = –3.50$, $p < .001$, were both statistically significant. The R^2 increased .12 because of both interactions, $F(2, 88) = 8.65$, $p < .001$. To address potentially confounding effects of the child's age, time spent in out-of-home care, and supportive parenting, the model was tested with these factors entered as covariates.

There was a statistically significant relationship between preadoption neglect and adoptees' social skills, conditioned by both unsupportive parenting and time since adoption. Figures 3 shows that for children with a shorter time since adoption (*M* –1 *SD*; Graph 1), the relationship between preadoption neglect and current social skills was not statistically moderated by unsupportive parenting. On the contrary, for those with a mean amount of time living with adoptive parents (Graph 2 in Figure 3), preadoption neglect showed a statistically significant negative relationship to adoptees' social skills only when unsupportive parental responses were 1 *SD* above the mean (solid line), $B = –14.98$, 95% CI [–25.90, –4.06], $t(96) = –2.73$, $p = .008$. Furthermore, for those with more time since adoption (*M* + 1 *SD*; Graph 3 in Figure 3), preadoption neglect was negatively linked to adoptees' social skills regardless of whether unsupportive parenting was low, $B = –13.76$, CI [–26.48, –1.03], $t(96) = –2.15$, $p = .034$, at the mean, $B = –21.46$, CI [–33.06, –9.86], $t(96) = -3.68$, $p < .001$, or high, $B = –29.16$, CI [–42.79, –15.52], $t(96) = –4.25$, $p < .001$. The negative effect of preadoption neglect on adoptees' social skills was exacerbated by unsupportive parenting, and this moderating effect became more negative the more time had passed since the adoption (H3).

Discussion

In this study, we explored pre- and postadoption predictors of adoptees' social competence in a sample of domestically adopted Portuguese children. The central aim was to examine how pre- and postadoption processes interact to shape adoptees' social competence. We also examined the moderating effect of adoptive parents' emotion socialization practices in the relationship between preadoption neglect and adoptees' social competence.

Although our main goal was the analysis of predictors of adopted children's social competence, the descriptive data for SSIS-RS add to what we know about the adoptees versus nonadoptees comparison in social competence. In this sample of Portuguese adoptees, only about one in 10 children was below the mean reference values in social skills, but nearly half (47.4%) of the sample was above the mean reference values in problem behaviors. This was consistent with previous research in which a higher incidence of problem behavior in adoptees has been observed

(Askeland et al., 2017; Juffer & van IJzendoorn, 2005). Perhaps some of the contradictory findings in previous research derive from the fact that these two aspects of social competence have not always been clearly differentiated in extant research on the topic.

The first hypothesis (H1), predicting a negative connection between preadoption adversity and adoptees' social competence (social skills and problem behaviors), was partially confirmed. Preadoption parental neglect predicted lower social skills (before considering the amount of time spent in out-of-home care) but did not predict adoptees' problem behaviors. Moreover, more time spent in out-of-home care predicted more problem behaviors. These results are in line with existing literature on the long-lasting negative influence of parental neglect (Hildyard &Wolfe, 2002) and the length of institutional adversity endured (Askeland et al., 2017; Juffer & van IJzendoorn, 2005; Sonuga-Barke et al., 2010).

Time in out-of-home care had the strongest negative association with adoptees' social competence among the preadoption variables examined. For the vast majority of participants, out-of-home care was institutional rearing. After a mean adoption period of 5 years, even if essentially characterized by positive experiences (van IJzendoorn & Juffer, 2006), exposure to institutional care was still negatively associated with children's social competence, especially problem behaviors. These findings provide yet another piece of evidence suggesting that institutional care might lead to developmental shortcomings and an increased likelihood of problem behaviors and interpersonal difficulties (Baptista et al., 2013; Merz & McCall, 2010) and that change is needed in Portuguese policies concerning children's placement in institutional care. We return to this point later.

Results partially confirmed H2, which stated that (un)supportive adoptive parents' responses and time since adoption predict adoptees' social skills and problem behaviors. Unlike the findings reported in other studies (Caprin et al., 2017; Palacios et al., 2013), correlations between time since adoption and adoptees' social competence were statistically significant in our data. However, time since adoption was a relevant predictor only in interaction with the child's preadoption neglect experience, demonstrating the complex interplay between adopted children's past and present influences, as shown, for instance, in Kriebel and Wentzel (2011) and Pitula et al. (2017).

Consistent with notions about the role of the adoptive family as a place to recover from past experiences (van IJzendoorn & Juffer, 2006), and highlighting the importance of a supportive and stable postadoption parent–child relationship, supportive adoptive parenting predicted higher levels of social skills. Moreover, consistent with previous research (Alves & Cruz, 2011; Baker et al., 2011; Eisenberg et al., 1996; Herrera, 2014), and as stated in H2, unsupportive parental responses predicted both lower levels of social skills and higher levels of problem behaviors.

Although neither supportive nor unsupportive parenting statistically correlated with adoptees' social skills, when placed together in the regression analysis both supportive and unsupportive parenting statistically enhanced the prediction of social skills. As previously stated, these findings reveal a reciprocal suppression effect between supportive and unsupportive responses. The positive correlation between them means that both coexist (parents who react more positively are also those who react more negatively), but the correlation was only moderate. Future research should explore the interplay between supportive and unsupportive parenting in explaining children's outcomes.

Because we considered our sample to be homogeneous in terms of age, the statistical relationship between the adoptees' age and their social competence was an unexpected finding. Although Julian and McCall (2016) showed that adoptees' social skills increase from middle childhood to adolescence, our findings displayed the same increase within middle childhood, highlighting that this age group was not as homogeneous as intended by restricting the sample to adoptees between 8 and 10 years of age. In fact, the child's age had to be considered a covariate across our data analyses. These findings can suggest that adoptees developed social skills at a rapid rate on a compressed timeline compared with nonadopted children, in essence making up for lost time due to adverse experiences lived before adoption. Nevertheless, research has shown that this rapid development and catch-up tends to be more common in the first years after placement but slackens and stabilizes over time (e.g., Palacios, Román, & Camacho, 2010). Thus, further evidence should be explored on this issue.

Finally, our findings were consistent with H3 for social skills but not for problem behaviors. Results confirmed the independent and joint moderating role of family experiences after adoption (assessed through the length of time within the adoptive family) and of the adoptive parents' emotion socialization practices, on children's social skills. The findings related to adoptive parents' emotion socialization, which have not been reported in previous literature, are of special interest in the case of adoptive parents' unsupportive responses to their children's negative emotions. Unsupportive parenting exacerbated the effect of preadoption parental neglect on adoptees' social skills. The use of unsupportive emotion socialization practices seems to extend the negative impact of early neglect to the postadoption period and therefore emerges as an added risk factor for adoptees with past adversity.

Time in the adoptive family was positively associated with these skills in children without preadoption experiences of neglect. In contrast, time since adoption was negatively associated with social skills in children with preadoption parental neglect. Thus, findings highlighted the exacerbating role of time since adoption in the negative effect of neglect on social skills. Taking together findings related to postadoption experiences as risk factors, the longer children are exposed to unsupportive parenting practices, the more accentuated their impact seems to be on children's social skills. In sum, the apparent negative effect of preadoption neglect on the adoptees' social competence seems to be increasingly compounded the longer children are subsequently exposed to unsupportive parenting following adoption.

Finally, although the issue goes well beyond the goals of this study, our findings raise some concern about the social competence construct. Social competence has been defined as possessing the necessary skills to perform competently in social tasks and exhibiting the behaviors appropriate for interactions with others, and the instrument developed to assess social competence encompasses both aspects (Gresham, 1986, 2016). Despite a high correlation between them ($r = –.73$), the two dimensions functioned quite differently from one another in the present study. Although regression analyses indicated that both social skills and problem behaviors were associated with adoptive parents' emotion socialization, the moderation tests considering both past and present influences worked well for social skills but not for problem behaviors. Thus, we question whether social skills and problem behaviors are two different (even if related) domains or are two aspects of the same domain, as the concept of social competence suggests. In fact, SSIS-RS provides separate scores for each domain, without any integrative score. More research seems to be needed to clarify this issue in terms of both concept and assessment.

Limitations and Future Directions

Two of the main shortcomings of this study are the assessment of children's social competence by only their parents and the retrospective gathering of information about their past experiences. The latter is a common procedure in adoption studies but raises some concerns about the accuracy of the information. In future research, it would be beneficial to obtain a more reliable assessment of neglect experiences and to evaluate adoptees' social competence using multiple informants. The cross-sectional design we employed is another limitation because it only allowed us to assess correlations; a longitudinal design would allow the findings to be taken a step further by confirming the sequence and pace of change. Yet another limitation is the small sample size that prevents the use of more complex analytical techniques, such as structural equation modeling. In future studies, alternative statistical methods could be used to account, for example, for the interdependence of the data and to take advantage of mothers' and fathers' separate scores.

Practical Implications

This study's findings have important implications for professional practice with families, and specifically for Portuguese child-protection policies. Results highlight the importance of the family in providing a consistent, privileged, and secure relationship, which is essential in sensitive periods of socioemotional development (Julian & McCall, 2016). In the Portuguese context, nearly 97% of children who cannot remain in their birth family are placed in institutional care, which is not only an anomaly in Western countries today (Del Valle & Bravo, 2013) but also a context that cannot provide the type of attachment relationship with a caregiver that young children need (Dozier et al., 2014). Family alternatives should be promoted, particularly

for young children. In addition, our findings reveal the importance of a seldom-considered variable when working with adoptive parents: parental emotion socialization. The detrimental outcomes associated with unsupportive parental responses—such as those involving minimization, punition, or distress—to the adoptees' expression of negative emotions was underscored in our results, particularly when following early parental neglect. Indeed, positive parenting approaches seem to be most needed by those whose early adversity makes them more vulnerable to negative socialization practices.

Conclusion

Despite its limitations, this study contributes to a better understanding of the processes underlying adopted children's social competence, which is an area still in need of research. A strength of this study is the use of variables not studied in previous adoption research—namely, preadoption neglect and parental responses to the children's negative emotions. This research also provides new information about the postadoption parenting processes that contribute to adopted children's social competence. In addition, it brings to light the relevance for future research of the interplay between pre- and postadoption experiences in the prediction of adoptees' outcomes. In conclusion, postadoption parenting practices should never be an added risk factor for children with past experiences of socioemotional neglect.

Author Note

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References

Alves, D., & Cruz, O. (2011). Reações parentais às emoções negativas dos filhos:Um questionário de avaliação da meta-emoção parental [Parental reactions to children's negative emotions: An evaluation questionnaire of parental meta-emotion]. In A. S. Ferreira, A. Verhaeghe, D. R. Silva, L. S. Almeida, R. Lima, & S. Fraga (Eds.), *Actas do VIII Congresso Iberoamericano de Avaliação Psicológica e XV Conferência Internacional Avaliação Psicológica: Formas e Contextos* (pp. 1480–1492). Retrieved from https://repositorioaberto.up.pt/bitstream/10216/57244/2/87484.pdf

Askeland, K. G., Hysing, M., La Greca, A. M., Aaro, L. E., Tell, G. S., & Sivertsen, B. (2017). Mental health in internationally adopted adolescents: A meta-analysis. *Journal of the American Academy of Child & Adolescent Psychiatry*, *56*, 203–213. https://doi.org/10.1016/j.jaac.2016.12.009

Baker, J. K., Fenning, R. M., & Crnic, K. A. (2011). Emotion socialization by mothers and fathers: Coherence among behaviors and associations with parent attitudes and children's social competence. *Social Development*, *20*, 412–430. https://doi.org/10.1111/j.1467-9507.2010.00585.x

Baptista, J., Belsky, J., Martins, C., Silva, J., Marques, S., Mesquita, A., & Soares, I. (2013). Social withdrawal behaviour in institutionalized toddlers: Individual, early family and institutional determinants. *Infant Mental Health Journal*, *34*, 562–573. https://doi.org/10.1002/imhj.21416

Caprin, C., Benedan, L., Ballarin, L., & Gallace, A. (2017). Social competence in Russian post-institutionalized children: A comparison of adopted and non-adopted children. *Children and Youth Services Review*, *75*, 61–78. https://doi.org/10.1016/j.childyouth.2017.02.020

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. Hillsdale, NJ: Erlbaum.

Del Valle, J. F., & Bravo, A. (2013). Current trends, figures and challenges in out of home child care: An international comparative analysis. *Psychosocial Intervention*, *22*, 251–257. https://doi.org/10.5093/in2013a28

Dozier, M., Kaufman, J., Kobak, R., O'Connor, T. G., Sagi-Schwartz, A., Scott, S. … Zeanah, C. H. (2014). Consensus statement on group care for children and adolescents: A statement of policy of the American Orthopsychiatric Association. *American Journal of Orthopsychiatry*, *84*, 219–225. https://doi.org/10.1037/ort0000005

Eisenberg, N., Fabes, R. A., & Murphy, B. C. (1996). Parents' reactions to children's negative emotions: Relations to children's social competence and comforting behavior. *Child Development*, *67*, 2227–2247. https://doi.org/10.1111/j.1467-8624.1996.tb01854.x

Fabes, R. A., Eisenberg, N., & Bernzweig, J. (1990). *Coping with Children's Negative Emotions Scale (CCNES): Description and scoring*. Tempe: Arizona State University.

Faul, F., Erdfelder, E., Lang. A-G., & Buchner, A. (2007). G*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavioral Research Methods*, *39*, 175–191. https://doi.org/10.3758/BF03193146

Garvin, M., Tarullo, A., van Ryzin, M., & Gunnar, M. (2012). Postadoption parenting

and socioemotional development in postinstitutionalized children. *Development and Psychopathology*, *24*, 35–48. https://doi.org/10.1017/S0954579411000642

Glennen, S., & Bright, B. (2005). Five years later: Language in school-age internationally adopted children. *Seminars in Speech and Language*, *26*, 86–101. https://doi.org/10.1055/s-2005-864219

Gresham, F. M. (1986). Conceptual and definitional issues in the assessment of children's social skills: Implications for classification and training. *Journal of Clinical Child Psychology*, *15*, 3–15. https://doi.org/10.1207/s15374424jccp1501_1

Gresham, F. M. (2016). Social skills assessment and intervention for children and youth. *Cambridge Journal of Education*, *46*, 319–332.https://doi.org/10.1080/0305764X.2016.1195788

Gresham, F. M., & Elliott, S. N. (2008a). *Social Skills Improvement System—Rating Scales*. Minneapolis, MN: Pearson Assessments.

Gresham, F. M., & Elliott, S. N. (2008b). *Social Skills Improvement System—Rating Scales Manual*. Minneapolis, MN: Pearson Assessments.

Hawthorne, G., & Elliott, P. (2005). Imputing cross-sectional missing data: Comparison of common techniques. *The Australian and New Zealand Journal of Psychiatry*, *39*, 583–590. https://doi.org/10.1080/j.1440-1614.2005.01630.x

Hayes, A. F. (2013). *An introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. New York, NY: Guilford Press.

Herrera, A. M. (2014). *Externalizing behavior in post-institutionalized children: An examination of parent emotion socialization practices, respiratory-sinus arrhythmia, and skin conductance* (Doctoral dissertation). Available from ProQuest Dissertations and Theses database (UMI No. 3630238).

Hildyard, K. L., & Wolfe, D. A. (2002). Child neglect: Developmental issues and outcomes. *Child Abuse & Neglect*, *26*, 679–695. https://doi.org/10.1016/S0145-2134(02)00341-1

Johnson, A. M., Hawes, D. J., Eisenberg, N., Kohlhoff, J., & Dudeney, J. (2017). Emotion socialization and child conduct problems: A comprehensive review and meta-analysis. *Clinical Psychology Review*, *54*, 65–80. https://doi.org/10.1016/j.cpr.2017.04.001

Juffer, F., & van IJzendoorn, M. H. (2005). Behavior problems and mental health referrals of international adoptees: A meta-analysis. *Journal of the American Medical Association*, *293*, 2501–2515. https://doi.org/10.1001/jama.293.20.2501

Julian, M. S., & McCall, R. B. (2016). Social skills in children adopted from socially-emotionally depriving institutions. *Adoption Quarterly*, *19*, 44–62. https://doi.org/10.1080/10926755.2015.1088106

Kline, R. B. (2011). *Principles and practice of structural equation modeling*. New York, NY: Guilford Press.

Kriebel, D. K., & Wentzel, K. (2011). Parenting as a moderator of cumulative risk for behavioral competence in adopted children. *Adoption Quarterly*, *14*, 37–60. https://doi.org/10.1080/10926755.2011.557945

McDowell, D. J., Kim, M., O'Neil, R., & Parke, R. D. (2002). Children's emotional regulation and social competence in middle childhood. The role of maternal and paternal interactive style. *Marriage & Family Review*, *34*, 345–364. https://doi.org/10.1300/J002v34n03_07

Merz, E. C., & McCall, R. B. (2010). Behavior problems in children adopted from psychosocially depriving institutions. *Journal of Abnormal Child Psychology*, *38*, 459–470. https://doi.org/10.1007/s10802-009-9383-4

Morelen, D., Shaffer, A., & Suveg, C. (2016). Maternal emotion regulation: Links to emotion parenting and child emotion regulation. *Journal of Family Issues*, *37*, 1891–1916. https://doi.org/10.1177/0192513X14546720

National Institute of Social Security. (2018). *Annual characterization of children's and youth's out-of-home care*. Lisbon, Portugal: National Institute of Social Security.

Palacios, J., & Brodzinsky, D. M. (2010). Adoption research: Trends, topics, outcomes. *International Journal of Behavioral Development*, *34*, 270–284. https://doi.org/10.1177/0165025410362837

Palacios, J., Moreno, C., & Román, M. (2013). Social competence in internationally adopted and institutionalized children. *Early Childhood Research Quarterly*, *28*, 357–365. https://doi.org/10.1016/j.ecresq.2012.08.003

Palacios, J., Román, M., & Camacho, C. (2010). Growth and development in internationally adopted children: extent and timing of recovery after early adversity. *Child: Care, Health and Development*, *37*, 282–288. https://doi.org/10.1111/j.1365-2214.2010.01142.x

Pitula, C. E., DePasquale, C. E., Milner, S. B., & Gunnar, M. R. (2017). Peer problems among postinstitutionalized, internationally adopted children: Relations to hypocortisolism, parenting quality, and ADHD symptoms. *Child Development*. Advance online publication. https://doi.org/10.1111/cdev.12986

Rodrigues, S., & Barbosa-Ducharne, M. (2017). Current challenges of residential child and youth care in Portugal: The pressing need for residential care quality assessment. In T. Islam & L. Fulcher (Eds.), *Residential child and youth care in a developing world— European perspectives* (pp. 355–365). Cape Town, South Africa: CYC-Net Press.

Soares, I., Belsky, J., Oliveira, P., Silva, J., Marques, J., Baptista, J., & Martins, C. (2014). Does early family risk and current quality of care predict indiscriminate behavior in institutionalized Portuguese children? *Attachment and Human Development*, *16*, 137–148. https://doi.org/10.1080/14616734.2013.869237

Soares, J., Barbosa-Ducharne, M., Palacios, J., & Pacheco, A. (2017). Adopted children's emotion regulation: The role of parental attitudes and communication about adoption. *Psicothema*, *29*(1), 49–54. https://doi.org/10.7334/psicothema2016.71

Sonuga-Barke, E. J., Schlotz, W., & Kreppner, J. (2010). Differentiating developmental trajectories for conduct, emotion, and peer problems following early deprivation. *Monographs of the Society for Research in Child Development*, *75*, 102–124. https://doi.org/10.1111/j.1540-5834.2010.00552.x

Tan, T. X. (2006). History of early neglect and middle childhood social competence: An adoption study. *Adoption Quarterly*, *9*, 59–71. https://doi.org/10.1300/J145v09n04_04

Tan, T. X., & Camras, L. A. (2011). Social skills of adopted Chinese girls at home and in school: Parent and teacher ratings. *Children and Youth Services Review*, *33*, 1813–1821. https://doi.org/10.1016/j.childyouth.2011.05.006

van IJzendoorn, M. H., & Juffer, F. (2006). The Emanuel Miller memorial lecture 2006: Adoption as intervention. Meta-analytic evidence for massive catch-up and plasticity in physical, socio-emotional and cognitive development. *Journal of Child Psychology and Psychiatry*, *47*, 1228–1245. https://doi.org/10.1111/j.1469-7610.2006.01675.x

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