The development of children in foster care

Goemans, A.

PSYCHOSOCIAL FUNCTIONING IN DUTCH FOSTER CHILDREN: THE RELATIONSHIP WITH CHILD, FAMILY, AND PLACEMENT CHARACTERISTICS

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ABSTRACT

Foster care is the preferred alternative for out-of-home care, but not necessarily beneficial for foster children's psychosocial functioning. This dilemma leaves researchers with a challenge to find out more about the factors related to foster children's social and emotional functioning. In a sample of 446 Dutch foster children we examined the extent to which three clusters of characteristics, those akin to the foster child, the foster family, or foster placement, were related to foster children's functioning at the time of research. Multivariate three-step hierarchical regression analyses were performed for three outcome variables: externalizing problems, internalizing problems, and prosocial behavior. We found that all three clusters of foster care characteristics were significantly related to foster children's functioning. Foster placement characteristics, in particular interventions aimed at foster children, explained the largest amount of variance in behavior problems. Children receiving interventions had more externalizing and internalizing problems. A possible explanation is that interventions are indicated for those foster children who are in the highest need of additional support. Prosocial behavior was particularly related to foster family characteristics. The results were mostly in line with international research. Careful screening and monitoring of the social and emotional functioning of foster children may help to identify problems at an early stage. In addition, (preventive) support should be offered to those foster children and families who are in need of it.

INTRODUCTION

Foster care is a form of child welfare in which foster parents provide for the care of children whose biological parents are unable to care for them. Foster care is seen by researchers (Dozier, et al., 2014; Roy et al., 2000; Webster et al., 1999; Wilson & Conroy, 1999) and policy makers in the United States and in other countries (CRC, 2015; Legrand, 2015) as the preferred type of alternative care, because it ensures that children who cannot be cared for by their own families grow up in a family environment. It is supposed to offer continuity and stability of caregivers, and thereby provides the opportunity for children and foster parents to build close relationships. In western countries, foster care has grown over the last few decades and many children are placed in foster care each year (Nelson, Fox, & Zeanah, 2014; Pleegzorg Nederland, 2014; Stahmer et al., 2009; U.S. Department of Health and Human Services, 2015).

It is also in these countries that opinions about foster care are not unreservedly positive (Lawrence et al., 2006; Lloyd & Barth, 2011; Minnis, Everett, Pelosi, Dunn, & Knapp, 2006; Vanderfaeillie, Van Holen, Vanschoonlandt, Robberechts, & Stroobants, 2013). Foster placements are not as stable as one would hope (Minty, 1999; Van Rooij et al., 2015), and studies on foster care have repeatedly revealed that foster children's lives are characterized by developmental challenges, not just before but also during foster care (Berkoff, Leslie, & Stahmer, 2006; Clausen et al., 1998; Frank, 1980; Jacobsen et al., 2013; Lloyd & Barth, 2011; Minnis et al., 2006; Strijker, Knorth, & Knot-Dickscheit, 2008). Many foster children have experienced adverse life events, such as child abuse or neglect, before placement in foster care. In addition to this, separation from the biological parents and removal from the home of origin present challenges. As a consequence, many children enter foster care with developmental problems (Clausen et al., 1998; James, 2004; Simms, Dubowitz, & Szilagyi, 2000; Zorc et al., 2013). While in foster care, foster children face the task of getting used to a new home and family. Previous studies have shown that foster children run a higher risk of social and emotional problems than children in the general population (Farmer et al., 2001; Garwood & Close, 2001; Lanier et al., 2014; Maaskant et al., 2014; Meltzer et al., 2003). Moreover, a recent meta-analysis on the adaptive and behavioral development of foster children showed that on average these children, during their stay in the foster family, did not improve with respect to adaptive functioning, and the intensity of either externalizing or internalizing problem behavior (Goemans et al., 2015). Foster children enter care with elevated levels of problem behavior and, on average, these problems do not diminish while in foster care.

The fact that foster care is the preferred alternative for unavailable family care in many countries, but not necessarily developmentally beneficial for the child, leaves researchers and care professionals with a challenge to find out more about factors that predict or explain children's social and emotional functioning. To date, many studies on foster care, mainly performed in the United States, provide an important stepping stone toward this end (Orme & Buehler, 2001; Rubin, O'Reilly, Luan, & Localio, 2007; Winokur et al., 2014). These studies, broadly speaking, focused on three clusters of characteristics, those akin to the (1) foster child

(e.g., McWey, Cui, & Pazdera, 2010), (2) the foster family (e.g., Winokur et al., 2014) , and (3) foster placement (e.g., Cantos, Gries, & Slis, 1997). However, scant research has been performed on all three clusters in relation to foster children's social and emotional functioning simultaneously (cf., Maaskant et al., 2014). Further efforts to find out which clusters are most strongly related to foster children's functioning can provide guidance to foster care policies aimed at improving foster children's wellbeing and social adjustment. The outcomes of such efforts are likely beneficial to the matching of foster children and foster families, permanency planning, and support services for foster children and foster parents. Also, little is known about the role of factors such as the planning for reunification or whether the foster placement is voluntary or by a decision of the Juvenile Court. The current study aims to build on previous work by examining whether factors which, based on international research were seen to be related to children's functioning at the time of research, can be generalized to foster care in the Netherlands. In addition, we aim to improve and expand knowledge necessary for supporting and creating evidence-based policy and practice worldwide by focusing on several understudied factors related to foster children's social and emotional functioning.

Foster Care in the Netherlands

In the Netherlands, with a population of 17 million, currently over 21,000 children experience foster care and this number has doubled in just over ten years (Pleegzorg Nederland, 2014). An important difference between the Dutch foster care system and that of the United States, is the distinction between 'short-term' and 'long-term' foster care (Strijker et al., 2008). Foster care in the USA is always 'short-term' and temporal, because adoption and termination of parental rights are planned when children cannot return to their parents (Barber & Delfabbro, 2005; Barth et al., 2004). In contrast, in the Netherlands adoption after a period of foster care rarely takes place; foster care can either be short-term or long-term (Bastiaensen & Kramer, 2012), and permanency planning is a lengthy and less definitive process compared to the USA. (Vedder et al., 2015). In short-term foster care, foster care is seen as a temporary intervention and is aimed at the improvement of the circumstances in the family of origin in order to reunify foster children with their own parents. In long-term foster care children can remain in foster care indefinitely or, in practice, until they reach the age of 18 and legally become adults. The aim of this type of foster care is to create continuity, stability, security and the best developmental opportunities for the foster child in the foster family. Some Dutch parents lose their parental authority in long-term foster care and other foster parents have a form of shared custody with a child welfare professional. However, all parents remain connected to their child and are still obliged to pay a share of the costs involved in feeding, clothing and educating the child (Bastiaensen & Kramer, 2012).

Foster care in the Netherlands can either be short-term or long-term, and the option for either type of foster care as well as the option for reunification can be evaluated repeatedly over time. This organization may contribute to more insecurity about the stability of foster placements as well as to more actual instability of foster placements than in the USA (Barber & Delfabbro, 2005; Van Santen, 2010; Vedder et al., 2015). Disrupted attachment and getting used to a new home and foster family represent developmental challenges for the foster

child, which may have their influence on children's social and emotional functioning (Newton et al., 2000; Stovall & Dozier, 1998). These differences between foster care systems are of importance in the interpretation and generalization of the results of studies. Country specific knowledge on whether and how foster child, foster family, and foster placement characteristics are related to children's social and emotional functioning is needed to validate and supplement previous studies. Policy makers should be wary about generalizing results because of these different conditions between systems (Punselie, 2006; Van Santen, 2010).

Research on Child Characteristics

Several studies have examined the role of child characteristics in relation to foster children's development. Child characteristics are those that children bring with them into the current placement (i.e., age, gender, placement history) or factors that are distinctive for the child in the current placement (i.e., duration of the current placement) (Brooks & Barth, 1998). Knowledge regarding these child characteristics helps to raise foster care professionals' awareness of the increased risk for certain groups of foster children. Studies on child characteristics showed that younger children are reported to have fewer behavior problems at the time of research than older children (Maaskant et al., 2014; Van Oijen, 2010). Furthermore, a history of previous foster placement corresponds to psychosocial problems of foster children (Rubin et al., 2007; Strijker & Knorth, 2009; Strijker et al., 2008). In a longitudinal study, it was found that foster children's behavioral problems are both a cause and a consequence of placement disruption (Newton et al., 2000). With regard to gender and duration of the current placement results are less conclusive (Armsden, Pecora, Payne, & Szatkiewicz, 2000). Although several studies suggest that boys in foster care experience more behavior problems than girls (Rosenthal & Curiel, 2006; Ryan & Testa, 2005; Taussig, 2002), not all studies have shown this gender difference (Maaskant et al., 2014; McWey et al., 2010; Van Oijen, 2010). Findings regarding the duration of the current placement are also inconclusive. In a longitudinal study, the length of time in the foster family appeared uncorrelated to children's functioning (Lawrence et al., 2006), whereas another cross-sectional study (Maaskant et al., 2014) yielded that longer periods in care corresponded to more pro-social behavior. In short, the current study aims to explore whether and how age at the moment of the data collection, gender, and duration of the current placement are related to foster children's functioning. Additionally, this study will examine whether the number of previous placements is related to Dutch foster children's social and emotional functioning.

Research on Foster Family Characteristics

Although in practice a shortage of foster families does not always allow for strict selection criteria, it is helpful to know which foster family characteristics are predictive of foster children's functioning (Brooks & Barth, 1998; Rhodes, Orme, & Buehler, 2001). The most frequently studied characteristic in this domain is the difference between kinship and non-kinship placements. Internationally, placement of children in kinship foster care has increased over the last few years (Cuddeback, 2004; Keller et al., 2001; Vanschoonlandt, Vanderfaeillie, Van Holen, De Maeyer, & Andries, 2012). Although a recent meta-analysis has shown that children

in kinship foster care show better social and emotional functioning than children in non-kinship care (Winokur et al., 2014), Dutch studies are inconclusive in this regard (Maaskant et al., 2014; Strijker, Zandberg, & Van der Meulen, 2003).

Family composition (single-parent or two-parent families) is another foster family characteristic. It is generally suggested that the two main resources that parents provide to their children (money and time) are associated with positive child functioning (Bronfenbrenner, 1990; Soloman & Marx, 1995). Both money and time are associated with family structure in ways that could explain poorer functioning of children in single parent families (Thomson, Hanson, & McLanahan, 1994). Two-parent families face the task of running the family and raising children as a team effort. Compared to single-parent families, they have twice as much time available for earning a living and spending time with their children. However, research on whether foster children's psychosocial functioning differs between single- or two-parent families is scarce. One American study on child maltreatment in foster care pointed at a relation between the high rate of financial stress and the large number of single parents (Zuravin, Benedict, & Somerfield, 1993). However, more research is needed to find out if social and emotional functioning of foster children in single and two-parent foster families differ and whether foster care agencies should be extra supportive of the foster child and foster parent in single-parent families.

Another possible predictor of foster children's functioning is the presence of other children in the foster family, either biological children of foster parents or other foster children. In a review, Oosterman, Schuengel, Slot, Bullens, and Doreleijers (2007) suggested that there is a positive relation between the presence of biological children of the foster parents and placement breakdown. Because the presence of biological children of the foster parents elicits situations of jealousy and rivalry (Bowbly, 1951), it might be that foster children have more behavior problems in the presence of biological children and hence, have a higher risk of experiencing breakdown (Newton et al., 2000; Oosterman et al., 2007; Rock, Michelson, Thomson, & Day, 2015). However, research on this topic has not been conclusive and it is suggested that other factors, such as the motivation of foster parents or the age of the foster child are alternative explanations (Oosterman et al., 2007). Moreover, it could also be argued that children with more problems may be placed in more 'experienced' families, rather than in families without parenting experiences. As regards the presence of other foster children in the foster family, the same mechanism with respect to jealousy and rivalry might be at work, although Trasler (1960) found that placements were more successful if a foster child was placed in a foster family with another foster child. It may be that foster children in a foster family with other foster children are in a more equal position than foster children in families with biological children. It could be that the presence of other foster children evokes recognition and reciprocal support instead of jealousy and rivalry (Trasler, 1960). However, further research is needed to understand this mechanism.

Another relevant foster family characteristic is foster parents' thinking about quitting with foster care. Some studies on the motivation of foster parents and their considerations on quitting found that children's difficult behavior is one of the reasons for foster parents to quit (Rhodes et al., 2001; Rodger, Cummings, & Leschied, 2006; Triseliotis, Borland, & Hill, 1998). These studies have been conducted in the USA and Scotland. In the current study, we examine whether we can replicate this finding in a sample of Dutch foster parents.

Research on Foster Placement Characteristics

The last cluster of foster care characteristics associated with child functioning concerns foster placement characteristics, which can, to some extent, be influenced by foster care agencies and foster care professionals. Examples of such characteristics include planning for reunification, specific interventions aimed at foster children and foster parents, parental visiting, and legal framework (voluntary or mandated care). It stands to reason that the legal framework of the placement is a factor that is difficult to influence, in contrast to, for instance, the choice of specific interventions. The former are more strongly associated with pre-placement adversities and as a consequence are related to children's functioning. Regarding the legal framework, it was indeed shown that foster children in voluntary placements have fewer behavioral and emotional problems (Beatty, 1995). Furthermore, training and support for either foster child or foster parents have been shown to reduce the behavior problems of foster children (Chamberlain et al., 2008; Clark et al., 1994; Fisher & Chamberlain, 2000; Fisher, Gunnar, Chamberlain, & Reid, 2000). The relationship between parental visiting and foster children's functioning appears complex. On the one hand continuing ties and maintaining the biological attachment relationship is important for successful reunification, identity development and self-esteem. On the other hand the contact with biological parents can be disturbing and confusing and children are reported to react badly to visits sometimes (Browne & Moloney, 2002; Haight, Kagle, & Black, 2003; Leathers, 2003; Rosenfeld et al., 1997). Overall, it seems unclear under what conditions parental visits are either positively or negatively related to children's social and emotional functioning (Cantos et al., 1997; McWey & Mullis, 2004; Quinton, 1998; Rosenfeld et al., 1997).

Current Study

This study aims to establish, by using three-step hierarchical regression analyses, the extent to which clusters of characteristics, those akin to either foster child, foster family, or foster placement, are related to foster children's psychosocial functioning at the time of research. It is hypothesized that all three clusters are significantly related to foster children's prosocial and problem behavior. Because few studies have been performed on the clusters simultaneously, we have no indications whether or not one cluster should be hypothesized to be more strongly related to children's outcomes than the other. We also examine whether factors which are assumed to be related to child outcomes based on international research, can be generalized to foster care in the Netherlands. Previous research already gives comprehensive information on whether and in which way several characteristics of the child (e.g., placement history), of the foster family (e.g., kinship/ non-kinship, the presence of biological children, foster parent's thinking about quitting), and of the foster placement (e.g., interventions for foster parents and foster children) are related to foster children's social and emotional functioning, yet these studies have been mainly conducted in the United States, which differs in foster care policy and practice from the Dutch foster care system (Bastiaensen & Kramer, 2012; Punselie, 2006). In addition, we aim to improve and expand our knowledge of foster children's functioning by studying the role of factors for which earlier studies either reported inconclusive findings (e.g., as regards age, gender, duration of foster placement, parental visiting) or which are understudied (e.g., presence of other foster children in the foster family, family composition,

voluntary / mandated foster care, planning for reunification) and deserve further research. The current study aims to inform foster care policies and practices in order to improve the wellbeing and development of foster children and foster families.

METHOD

Participants

Participants in this study were 446 foster children between 3 and 17 years old (M = 10.52, SD = 4.13), including 209 girls (46.9%) and 237 boys (53.1%) living in the Netherlands. Mean time in the current foster placement care was 56.86 months (SD = 49.10 months), and the majority of the foster children had stayed in at least one other foster family before. To ensure independent observations, families with multiple foster children were allowed to participate with one of the foster children only. Almost two-thirds of the children resided in non-kinship foster care (66.1%). The majority of the foster children (91.0%) came from two-parent foster families. Foster families were sampled from all socioeconomic backgrounds. Of the foster mothers, one fifth completed primary or secondary school (20.0%), but most of them also completed secondary vocational education (36.8%) or higher vocational education (32.7%). Less than 10% (7.8%) graduated from university. Of the fathers 13.7% completed primary or secondary school. The percentages for completed secondary vocational education (35.7%), or higher vocational education (31.4%), were roughly the same as for mothers. In addition, 12.1% of fathers holds a university degree. Similar percentages regarding education can be found in the general population (Statistics Netherlands, 2013). Regarding occupational status, more than half (58.7%) of the foster mothers had a job as did 80.5% of fathers.

The initial sample consisted of 549 foster children, but foster children that fell outside the age range 3-17 years (N = 15), without psychosocial functioning scores (N = 43), or residing in part-time foster care (N = 45) were excluded from this study. The final sample consisted of 446 foster children. The response rate was 39.6%. To get an indication whether our sample was representative of the total population of Dutch foster families and foster children, we compared certain foster child, foster family, and foster placement characteristics of our sample (see also Table 4.1) with the characteristics reported in the yearly factsheet of all Dutch foster care institutions (Pleegzorg Nederland, 2014), as has been done by Chamberlain et al. (2006) as well. Compared to the total population of Dutch foster children, our sample had more or less the same age distribution, but had slightly more males (53.1%) compared to an equal (50/50) male/female distribution in the total population of Dutch foster children. Regarding the duration of the current placement, our sample consisted of fewer short placements (< 6 months) than in the general foster population. As a result of the longitudinal design (with a duration of 1 year) which was communicated to foster families at the start of the study, foster families in which the planned stay of the foster child was expected to be less than six months, may have been less likely to participate. In our sample, a small group of children were in their current placement for only half a year (our sample: 9.3% vs. 20% in the total population). The same percentage

of foster children in our sample (9.3%) resided in their current placement for 6 until 12 months compared to 13% in the general population. Almost fifteen percent of the children were in their foster families for one or two years (our sample 13.1% vs. 17% in the total population), and the majority were in their current placements for more than two years (our sample 68.3% vs. 50% in the total population). Regarding foster family characteristics, our sample consisted of somewhat more non-kinship foster families (66.1% vs. 58%). Regarding foster placement characteristics, our sample had a higher percentage of mandated foster placements (76.7%) than the total sample of Dutch foster placements (66%).

Instruments

Foster parents were asked to complete a questionnaire. Completion took foster parents approximately 30 minutes. Questions with respect to the foster child were about the age of the foster child, gender, placement history (whether the foster child had resided in previous placements or not) and duration of the current placement. Questions regarding the foster family were about the type of foster family (kinship or non-kinship), the family composition (single or two-parent household), the presence or absence of biological or other foster children present in the foster family, and foster parents' thinking about quitting foster care. Questions on the foster placement were about the legal framework, planning for reunification, parental visiting, and interventions (aimed at foster children or foster parents). Regarding the questions about interventions, foster parents were asked to indicate whether or not there had been any form of additional support during the current foster placement. It was clarified that this concerned therapy, training, and intervention *over and above the regular support* from the foster care institution. For most of the questions foster parents were asked to report about the current situation in the foster family. As regards the variable on interventions aimed at foster children or foster parents, we asked not only about current interventions, but also about previous interventions because we assumed that previous interventions could have lasting effects on the functioning of foster parents and foster children.

To measure the social and emotional functioning of children, the Dutch version (Van Widenfelt et al., 2003) of the Strengths and Difficulties Questionnaire (SDQ) for parents was used (Goodman, 1997; Van Widenfelt et al., 2003). The SDQ consists of 25 items to be answered on a 3-point Likert response scale ranging from 0 (*not true*) to 2 (*very true*). As previously suggested (Goodman, Lamping, & Ploubidis, 2010), and in accordance with the syntax provided by the SDQ website (http://www.sdqinfo.com/py/sdqinfo/c0.py), in the current study the items were combined in three subscales: internalizing behavior problems, externalizing behavior problems, and prosocial behavior. The subscale internalizing behavior problems consists of ten items covering emotional and peer problems. Sample items are: 'has many worries or often seems worried' and 'picked on or bullied by other children'. The subscale externalizing behavior problems is formed by combining the ten items for conduct and hyperactivity problems. Items are for example 'often lies or cheats' and 'restless, overactive, cannot stay still for long'. The subscale prosocial behavior consists of five items, for instance 'considerate of other people's feelings'. The SDQ is a well-validated screening instrument (Achenbach et al., 2008; Van Widenfelt et al., 2003) and the subscales have been shown to have good convergent and discriminant validity (Goodman et al., 2010). Studies using the

Dutch version of the SDQ found acceptable to good psychometric properties (Muris et al., 2003; Van Widenfelt et al., 2003). In the current study, Cronbach's alpha for internalizing behavior problems was .76, for externalizing behavior problems .84, and .74 for prosocial behavior.

Procedure

The study was approved by the Leiden University Ethics Review Board of the Institute of Education and Child Studies. All foster care agencies (N = 28) in the Netherlands were invited to participate in a three-wave-study on the developmental outcomes of children in foster care. Seven agencies (25%) agreed to participate. An often mentioned reason for not participating was the involvement in other foster care related research and the wish to prevent a research overload for foster families. In the participating foster care agencies, foster parents were informed about the goal of the study and consent was asked by the foster care agencies. The researchers only received contact information for those foster parents who gave consent.

In October 2014, 1,387 foster families were invited by the authors to participate in the study and to complete a questionnaire about the foster placement. The foster parents were informed that participation was voluntary and that they could end their participation at any moment without motivation. It was clarified that all information given by the foster parents to the authors would be handled confidentially and that the research was performed independently of the foster care agencies; neither the foster parent's decision regarding participation nor the information they would give in the questionnaire would in any way affect the course of the foster placement. Both short-term and long-term foster families were invited to participate. Foster families who offered 'crisis foster care' were excluded from participation, because these families formally take care of a foster child for a maximum duration of four weeks. In case of two-parent families, we considered that both foster parents could be primary caregivers so either of the two foster parents could complete the questionnaire. Furthermore, research has shown that there is strong agreement in reporting between foster mothers and foster fathers (McAuley & Trew, 2000; Stanger & Lewis, 1993). Most invitations for participation were sent by e-mail, referring to a link to fill out an online questionnaire. However, a small proportion of the invitations (5.2%) was by sent by regular mail including a paper form and a pre-stamped return envelope to include foster families without access to the internet or foster families whose e-mail addresses were not known by the foster care agencies. Two reminders to fill out the questionnaire were sent, on a two-week interval. Meanwhile, foster care professionals encouraged their foster families to participate and foster care agencies provided extra attention for the research by publicity in their newsletters. Three weeks after the last reminder, the online questionnaire was closed. No more paper forms were returned by regular mail three weeks after the last reminder. A family excursion to an amusement park and several gift vouchers were randomly distributed among participating foster families.

Table 4.1. *Descriptive statistics of foster child, foster family, and foster placement characteristics.*

	Categories	***N*** **(%)**	***n*** **missing (%)**
Foster Child Characteristics			
Age	-		2 (.4%)
Gender	Male Female	237 (53.1%) 209 (46.9%)	0 (.0%)
Placement history	-		21 (4.7%)
Duration placement	-		17 (3.8%)
Foster Family Characteristics			
Type of foster family	Kinship Non-kinship	144 (32.3%) 295 (66.1%)	7 (1.6%)
Family composition	Two parent family Single parent family	406 (91.0%) 40 (9.0%)	0 (.0%)
Biological children foster parents	No Yes	177 (39.7%) 266 (59.6%)	3 (.7%)
Other foster children	No Yes	240 (53.8%) 195 (43.7%)	11 (2.5%)
Foster parent thinks about quitting	Barely - Never Often - Sometimes	344 (77.1%) 377 (19.3%)	16 (3.6%)
Foster Placement Characteristics			
Legal framework	Voluntary Mandated care	97 (21.7%) 342 (76.7%)	7 (1.6%)
Planning for reunification	No Yes	373 (83.6%) 41 (9.2%)	32 (7.2%)
Intervention foster parents	No Yes	198 (44.4%) 242 (54.3%)	6 (1.3%)
Intervention foster child	No Yes	197 (44.2%) 244 (54.7%)	5 (1.1%)
Parental visiting	No Yes	69 (15.5%) 377 (84.5%)	0 (.0%)

Analyses

Data-inspection was performed and indicated no more than 10% missing values on each of the variables (range 0.0 – 7.2%, $M_{missing}$ = 2.0%) (see Table 4.1). Complete cases were present for 342 of the 446 participants. Traditional methods to handle missing data (e.g., pairwise or listwise deletion) are wasteful and may lead to biased or even false results because of a loss of power (Graham, 2009; Rubin, 1987; Schafer & Graham, 2002). An appropriate strategy to handle missing data is multiple imputation, whereby plausible and unbiased values may be used in place of the missing values. Multiple imputation is the method of choice because it enables to incorporate auxiliary information about the missing data,

allows the uncertainty of parameter estimation in the missing data case to be estimated in a reasonable way, and preserves the important characteristics of the data set as a whole (Baraldi & Enders, 2010; Graham, 2009; Graham, Olchowski, & Gilreath, 2007). In the current study, missing data were imputed 20 times, as recommended by Graham et al. (2007). To examine whether foster child, foster family, and foster placement characteristics are related to psychosocial outcomes of foster children, three-step hierarchical regression analyses were performed for internalizing, externalizing, and prosocial behavior. The order of the models in the hierarchical regression analysis was based on the extent to which a group of factors is considered as fixed or not. In the current study, foster child characteristics were entered first because these are the factors that children bring with them into the current placement and are the most fixed or hard to change. Additionally, these factors were controlled for in the second and third step (foster family and foster placement characteristics respectively). Foster placement characteristics were entered in the last step, because these factors are considered as factors which can, more than foster family factors, be influenced by foster care agencies and foster care professionals. For the sake of simplicity, only the pooled results of the regression analyses are reported.

Table 4.2. *Mean, standard deviation, and zero-order correlation matrix Pearson's r (N = 446).*

	Externalizing behavior problems	**Internalizing behavior problems**	**Prosocial behavior**	**Age**	**Placement history**	**Duration**
Externalizing behavior problems						
Internalizing behavior problems	.388**					
Prosocial behavior	-.293**	-.338**				
Age	-.168**	.133**	-.025			
Placement history	.123*	.091	-.081	.104*		
Duration placement (in months)	-.029	-.044	.110*	.308**	-.043	
M (SD)	7.38 (4.52)	5.13 (3.77)	7.08 (2.28)	10.52 (4.13)	1.17 (1.51)	56.86 (49.10)

* = $p < .05$, ** = $p < .01$, *** = $p < .001$.

RESULTS

Table 4.2 presents means and standard deviations of all scales as well as zero-order correlations between scale scores. To get an indication of the level of behavior problems, we compared the mean total behavior problems (internalizing and externalizing behavior problems) of our sample of foster children to the Dutch norm cut-off scores (Goedhart et al., 2003). It appeared that foster children in our study on average scored within the borderline range (above the 90th percentile) on their reported total behavior problems (M = 12.51, SD = 6.91).

To examine whether foster child, foster family, and foster placement characteristics are related to the externalizing, internalizing and prosocial behavior of foster children, three-step hierarchical regression analyses were performed. For each outcome variable, the results for each step are reported in a table. Under each step, the unique individual predictors for that specific step are presented. The last three columns of the table represent the standardized coefficients (b*) of each predictor under the three different steps. Individual significant predictors are indicated with asterisks, but only interpreted when the model of included variables is a significantly contributing step in the explanation (Cramer, 1972; Petrocelli, 2003). The relative weight of standardized coefficients of factors between steps can be found in the last step (the last column). For each of the three steps, the explained variance (R^2), the adjusted explained variance (AdjR^2), the difference in explained variance between two consecutive steps (ΔR^2), the F, and the F-change are reported in the note under the table. A significant F-change means an improvement in explained variance between two consecutive models.

Externalizing Behavior Problems

A three-step hierarchical regression analysis was performed to explore whether foster child, foster family, and foster placement characteristics are related to the externalizing behavior problems of foster children. The results for each step are reported in Table 4.3. The first step, referring to foster child characteristics, explained a relatively small but significant proportion of externalizing behavior problems (AdjR^2 = .041, F-change (4, 434) = 5.692, p < .001). Both age (b* = -.196, t(434) = -3.93, p < .001) and placement history (b* = .147, t(434) = 3.04, p < .01) were significantly related to externalizing behavior problems. Older children, and children with fewer previous foster placements showed fewer externalizing problems. In the second step, the explained variance increased significantly compared to the first step, with foster family characteristics accounting for an additional 3.6% of explained variance (AdjR^2= .067, F-change (5, 429) = 4.485, p < .01). Children in non-kinship foster families (b* = .107, t(429) = 2.09, p < .05) and of foster parents who reported to think about quitting (b* = .105, t(429) = 2.19, p < .05) showed more externalizing behavior problems. Age of the foster child (b* = -.192, t(429) = -3.78, p < .001) and placement history (b* = .113, t(429) = 2.26, p < .05) remained significant predictors in the second model. In the third step, the explained variance doubled compared to the second step (ΔR^2= .087). Foster placement characteristics explained a significant proportion in externalizing behavior problems (AdjR^2 = .146, F-change (5, 424) = 8.911, p < .001). Both foster parent intervention

(b^* = .097, $t(424)$ = 2.013, $p < .05$) and foster child intervention (b^* = .254, $t(424)$ = 5.20, $p < .001$) were significantly related to externalizing behavior problems. Foster children who did not and/or whose foster parents did not receive additional support or interventions during the placement, showed fewer externalizing behavior problems. Furthermore, both age and type of foster family remained significant predictors in the third step of the hierarchical regression analyses.

Table 4.3. *Hierarchical multiple regression analysis predicting externalizing behavior problems.*

Predictor	***b****	***b****	***b****
Step 1: Foster Child Characteristics			
Age	-.196***	-.192***	-.236***
Gender (0=boy, 1=girl)	.025	.010	.013
Placement history	.147**	.113*	.089
Duration placement	.049	.064	.027
Step 2: Foster Family Characteristics			
Type of foster family (0=kinship care, 1=non-kinship)		.107*	.128*
Family composition (0=two-parent, 1=single-parent)		-.004	.007
Biological children foster parents (0=no, 1=yes)		.085	.093
Other foster children (0=no, 1=yes)		-.074	-.061
Foster parent thinks about quitting foster care (0=no, 1=yes)		.105*	.084
Step 3: Foster Placement Characteristics			
Legal framework (0=voluntary, 1=mandated care)			-.050
Planning for reunification (0=no, 1=yes)			-.026
Intervention foster parents (0=no, 1=yes)			.097*
Intervention foster children (0=no, 1=yes)			.254***
Parental visiting (0=no, 1=yes)			.007

* = $p < .05$, ** = $p < .01$, *** = $p < .001$.
Step 1: R^2 = .050, AdjR^2 = .041, ΔR^2 = .050, F = 5.692
Step 2: R^2 = .086, AdjR^2 = .067, ΔR^2 = .036, F = 4.485, F-change = 3.393
Step 3: R^2 = .173, AdjR^2= .146, ΔR^2 = .087, F = 6.332, F-change = 8.911

Internalizing Behavior Problems

Another three-step hierarchical regression model was performed to examine whether foster child, foster family, and foster placement characteristics are related to internalizing behavior problems. The results are presented in Table 4.4. The first step explained a significant 3.6% of the variance in internalizing behaviors of foster children (*F*-change (4, 434) = 4.043, $p < .01$). Only the age of the foster child was a significant predictor ($b^* = .145$, t(434) = 2.87, $p < .01$); younger children showed fewer internalizing problems. The second step adds five foster family characteristics to the regression model, which resulted in a significant increase of 3.2% in explained variance compared to the first step with only the foster child characteristics (Adj$R^2 = .049$, *F*-change (5, 429) = 2.985, $p < .05$). In the second step, again only one predictor turned out to be significantly related to internalizing behavior problems of the foster child: If the foster parents reported to think about quitting with foster care, the foster child was reported to have more internalizing behavior problems ($b^* = .163$, $t(429) = -3.39$, $p < .01$). In the second step, age of the foster child remained a significant predictor. In the third step, five predictors related to the foster placement were added, accounting for an extra 8.5 % explained variance compared to the second step (Adj$R^2 = .125$, *F*-change (5, 424) = 8.492, $p < .001$). Interventions for the foster child was a relatively strong significant predictor ($b^* = .261$, $t(424) = 5.34$, $p < .001$). As was true for externalizing behavior problems, foster children who did not receive an intervention during their placement showed fewer internalizing behavior problems. In the third step, age of the foster child and foster parents' thinking about quitting with foster care remained equally strong significant predictors compared to the second step.

Prosocial Behavior

To study whether foster child, foster family, and foster placement characteristics are related to the prosocial behavior of foster children, a third three-step model hierarchical regression analysis was conducted (see Table 4.5). Although duration of the placement was a significant predictor in the first step ($b^* = .117$, $t(434) = 2.29$, $p < .05$), the overall model of the first step was not significant, making us hesitant regarding its interpretation (AdjR2 = .011, *F*-change (4, 434) = 2.228, $p = .074$). The other foster child characteristics were not significantly related to foster children's prosocial behaviors. The second step explained 9.5% (*F*-change (5, 429) = 7.079, $p < .001$) of the variance in prosocial behavior; a significant increase compared to the first step ($\Delta R^2 = .075$). Foster children in kinship placements ($b^* = -.190$, $t(429) = -3.75$, $p < .001$), without the presence of biological children of foster child characteristics were not significantly related to foster children's prosocial behaviors. The second step explained 9.5% (*F*-change (5, 429) = 7.079, $p < .001$) of the variance in prosocial behavior; a significant increase compared to the first step ($\Delta R^2 = .075$). Foster children in kinship placements ($b^* = -.190$, $t(429) = -3.75$, $p < .001$), without the presence of biological children of foster parents ($b^* = -.147$, $t(429) = -3.01$, $p < .01$), and with foster parents who do not think about quitting foster care ($b^* = -.112$, $t(429) = -2.35$, $p < .05$), were reported to show significantly more prosocial behavior. Duration of the placement was no longer a significant predictor. The third step, composed of five foster placement characteristics did add significantly to the explained variance compared to the second step (Adj$R^2 = .093$, *F*-change (5, 424) = 2.678,

$p < .05$). One predictor (viz., planning for reunification) was significant ($b^* = -.147$, $t(424) = -2.58$, $p < .05$), meaning that children for whom plans for reunification were made, were reported to show less prosocial behavior. Type of foster family and the presence of biological children remained significant predictors in the third model. Foster parents' thinking about quitting foster care was no longer significant.

Table 4.4. *Hierarchical multiple regression analysis predicting internalizing behavior problems.*

Predictor	***b****	***b****	***b****
Step 1: Foster Child Characteristics			
Age	.145**	.121*	.103*
Gender (0=boy, 1=girl)	.075	.070	.067
Placement history	.082	.071	.063
Duration placement	-.083	-.052	-.065
Step 2: Foster Family Characteristics			
Type of foster family (0=kinship care, 1=non-kinship)		-.018	.005
Family composition (0=two-parent, 1=single-parent)		.064	.080
Biological children foster parents (0=no, 1=yes)		.058	.072
Other foster children (0=no, 1=yes)		.030	.028
Foster parent thinks about quitting foster care (0=no, 1=yes)		.163**	.127*
Step 3: Foster Placement Characteristics			
Legal framework (0=voluntary, 1=mandated care)			-.032
Planning for reunification (0=no, 1=yes)			.054
Intervention foster parents (0=no, 1=yes)			.046
Intervention foster children (0=no, 1=yes)			.261***
Parental visiting (0=no, 1=yes)			.071

* = $p < .05$, ** = $p < .01$, *** = $p < .001$.
Step 1: $R^2 = .036$, Adj$R^2 = .027$, $\Delta R^2 = .036$, $F = 4.043$
Step 2: $R^2 = .068$, Adj$R^2 = .049$, $\Delta R^2 = .032$, $F = 3.497$, F-change = 2.985
Step 3: $R^2 = .153$, Adj$R^2 = .125$, $\Delta R^2 = .085$, $F = 5.477$, F-change = 8.492

Table 4.5. *Hierarchical multiple regression analysis predicting prosocial behavior.*

Predictor	***b****	***b****	***b****
Step 1: Foster Child Characteristics			
Age	-.052	-.073	-.087
Gender (0=boy, 1=girl)	.034	.053	.051
Placement history	-.064	-.003	-.005
Duration placement	.117*	.090	.087
Step 2: Foster Family Characteristics			
Type of foster family (0=kinship care, 1=non-kinship)		-.190***	-.205***
Family composition (0=two-parent, 1=single-parent)		-.064	-.074
Biological children foster parents (0=no, 1=yes)		-.147**	-.145**
Other foster children (0=no, 1=yes)		.032	.050
Foster parent thinks about quitting foster care (0=no, 1=yes)		-.112*	-.058
Step 3: Foster Placement Characteristics			
Legal framework (0=voluntary, 1=mandated care)			-.082
Planning for reunification (0=no, 1=yes)			-.147*
Intervention foster parents (0=no, 1=yes)			-.069
Intervention foster children (0=no, 1=yes)			-.047
Parental visiting (0=no, 1=yes)			.010

* = $p < .05$, ** = $p < .01$, *** = $p < .001$.

Step 1: $R^2 = .020$, Adj$R^2 = .011$, $\Delta R^2 = .020$, $F = 2.228$

Step 2: $R^2 = .095$, Adj$R^2 = .076$, $\Delta R^2 = .075$, $F = 4.992$, F-change = 7.079

Step 3: $R^2 = .122$, Adj$R^2 = .093$, $\Delta R^2 = .027$, $F = 4.229$, F-change = 2.678

Chapter 4

DISCUSSION

Although foster care is the preferred alternative for unavailable family care, many foster children still experience challenges in their psychosocial functioning (Lloyd & Barth, 2011). Differences in foster children's functioning exist (Goemans et al., 2015), and efforts to gain knowledge on which factors can explain these differences can help to guide foster care policies and practice and thereby improve foster children's social and emotional functioning. In order to examine which factors matter most, we analyzed foster child, foster family, and foster placement characteristics in relation to foster children's psychosocial functioning in a multivariate model. Additionally, the study also intended to add to our knowledge as a generalization study. Previous research has been done in the context of country-specific policies and practices, and generalization to other contexts is not self-evident (Punselie, 2006). In a large sample of Dutch foster youth, the current study examined the extent to which three clusters of characteristics are related to foster children's psychosocial functioning at the time of research. These clusters were, based on international studies, assumed to be related to children's psychosocial functioning. We wanted to know whether the findings could be generalized to the Dutch foster care setting. By performing a study on foster care outside the United States we may learn which characteristics are only predictive in the United States, and which ones are important to foster children in other regions. Moreover, we wanted to analyze the role of several understudied factors. The analyses were performed for three outcome variables; externalizing problems, internalizing problems and prosocial behaviors.

This study showed that for both types of behavior problems, foster child, foster family as well as foster placement characteristics account for significant differences between foster children's internalizing and externalizing problems. The significance of the placement characteristics is almost completely due to the significance of one placement related characteristic, namely interventions for foster children. Interventions aimed at foster children was the factor most strongly related to behavior problems, also in relation to other significant foster child and foster family characteristics. The association between interventions and outcomes was positive, which means that children receiving interventions have more internalizing and externalizing behaviors than children not receiving interventions. This finding might appear counterintuitive, because one would assume that interventions reduce problem behavior. A possible explanation is that interventions are indicated for those foster children and foster families who are in highest need of additional support (Burns et al., 2004). However, it cannot be excluded that the children already benefitted from the interventions and their behavior problems would have been even more severe if they would not have received the intervention. Neither can it be excluded that interventions contribute to foster children's problem behavior (cf., Dishion, McCord, & Poulin, 1999). The latter explanation, however, seems less likely than the first one, because studies on interventions in foster care show that specific interventions can reduce problem behavior (Chamberlain et al., 2008; Dozier et al., 2006; Fisher & Chamberlain, 2000; McNeil, Herschell, Gurwitch, & Clemens-Mowrer, 2005; Price et al., 2008). However, well-designed longitudinal research is needed to examine in more detail the effects of interventions on the development and placement trajectories of foster children. A difference between the two

types of behavior problems was that the foster placement related characteristic 'interventions for foster parents' was significantly related to externalizing problems, but not to internalizing problems. An explanation can be that externalizing behaviors of foster children are more likely to interfere with the foster family's life and thereby induce family stress (Vanschoonlandt, Vanderfaeillie, Van Holen, & De Maeyer, 2012), which results in the need for support services. In addition, it has been shown that externalizing behaviors are more strongly related to foster care breakdown than internalizing problems (Oosterman et al., 2007). As a consequence, foster care professionals might be particularly prone to initiate additional support when externalizing problems are observed or reported by foster parents.

For foster children's prosocial functioning, a different pattern was found than for behavior problems. Foster child characteristics did not account for significant differences between foster children's prosocial functioning. Furthermore, while foster placement characteristics was the cluster most strongly related to children's behavior problems, only a small but significant increase in explained variance in prosocial behavior was related to this cluster, mainly due to one factor, namely planning for reunification. Foster parents reported less prosocial behavior for foster children for whom plans of reunification were made. It might be that the prospect of reunification results in mixed feelings and loyalty conflicts in foster children, manifested in less prosocial behavior. However, a previous longitudinal study found that children with psychosocial problems were less likely to be reunified (Landsverk, Davis, Ganger, Newton, & Johnson, 1996). Future research is needed to find out the processes in this relation between planning for reunification and prosocial behavior. The foster placement characteristic that was most strongly related to internalizing and externalizing behavior problem, i.e., interventions for foster children, appeared unrelated to prosocial behaviors. An explanation might be that most interventions for foster children are more specifically aimed at decreasing the problem behavior of children than on how to promote prosocial behaviors in foster children (Fisher et al., 2009; Vanderfaeillie et al., 2013). Future research to examine the effect of a more positive approach toward foster care and foster children would be of interest (Oke, Rostill-Brookes, & Larkin, 2011). For prosocial behavior, the cluster of foster family characteristics was most important for explaining foster children's prosocial behaviors. Three out of five foster family characteristics were significantly related to prosocial behaviors. Children in kinship foster families, without the presence of biological children of foster parents, or with foster parents who do not think about quitting foster care, were reported to show significantly more prosocial behavior. It has been suggested that children cared for in stable environments are likely to have more prosocial skills (Campbell, 1995; Ladd & Pettit, 2002). In line with this result, it can be argued that all three foster family characteristics are related to the stability of placement, and thus to more prosocial behavior. For children who are placed in kinship care, the change from living with their family of origin to living with relatives can be considered as smaller than the change to living with a strange family in an unfamiliar home environment. Moreover, a recent meta-analysis showed that children in kinship care had more stable placements and less risk of experiencing a placement disruption than children in non-kinship care (Winokur et al., 2014). In addition, foster parents' thinking about quitting with foster care might result in feelings of instability for foster children. The third foster family characteristic that was shown to be related to less prosocial behavior was the presence of biological children in the foster

family. As suggested in previous studies, the presence of biological children may elicit situations of jealousy and rivalry which neither benefit the prosocial behaviors of foster children nor the stability of the placement (Rock et al., 2015). It could also be that foster parents without biological children simply have more time and attention for their foster children.

This study also tried to identify whether knowledge on factors which, based on international studies, are known to be related to foster children's outcomes, can be applied to foster care policies and practices in the Netherlands. The results for most significant relations are in line with international research. However, several factors that have been found to be related to foster children's social and emotional functioning in international studies, such as placement history or duration of the placement, were not related to foster children's functioning in this Dutch sample. An explanation can be that in a multivariate model, the small influence of several individual factors is suppressed by certain key factors. However, the most notable absent relation was between placement history and foster children's outcomes. Placement history has been shown to be a strong predictor for psychosocial functioning and placement breakdown (e.g., Newton et al., 2000). In the current study, Pearson's correlation between placement history and externalizing behavior was significant (Table 4.2), but in the multiple regression the number of former placements in care was neither related to behavior problems nor to prosocial behaviors. Although this finding was unexpected in light of international studies, it can be questioned whether placement history is in fact a key predictor in the Netherlands. Previous Dutch studies showed that placement history was a significant individual risk factor related to child outcomes (Maaskant et al., 2014; Strijker et al., 2008), but that it no longer was when it was included in a multiple regression model (Maaskant et al., 2014). In Maaskant et al. (2014), only age of the child remained a significant predictor. Similar suggestions have been made by Oosterman et al. (2007) with regard to number of former placements in relation to foster care breakdown. Univariate studies yielded larger effect sizes than multivariate studies, and the authors conclude that based on multivariate results it could be doubted that placement history is a significant independent predictor (Oosterman et al., 2007). Another explanation for the absent relation between placement history and foster children's psychosocial functioning can be that our sample was characterized by low frequencies of former placements ($M = 1.17$), which was similar to the frequency reported by ($M = 1.15$, Maaskant et al., 2014). Almost 37% of the foster children in our sample experienced no previous placements, and approximately 32% experienced only one former placement. In comparison with another, less recent Dutch study (Strijker et al., 2008), there seems to be a slow shift toward a placement history consisting of fewer former placements. It might be that the increased attention over the years for prevention of breakdown and the detrimental effects of placement changes on foster children's functioning yielded positive results. Therefore, professionals should remain attentive to avoid breakdown and multiple placements in the Netherlands. However, attention for multiple placements and breakdown should go together with an extra focus on key predictors like interventions aimed at foster children.

The low number of former placements and the absent relation between placement history and foster children's social and emotional functioning also helps to frame the findings in light of the Dutch foster care context. In the introduction we suggested that it is important to be aware of the link between study findings and the foster systems that form the context of

the studies. We gave the example of planning for reunification. The Dutch policies regarding planning for reunification can trigger more insecurity about the stability of the placement and as a consequence have negative consequences on foster children's behavioral functioning and permanency planning. If plans for reunification are not made, insecurity about the stability of the placement remains, because for many foster placements without reunification plans, none of the parties involved knows whether the foster child will remain in the foster family or whether eventually the child will be reunited with the biological parents. However, the foster children in our sample did not experience more placement changes compared to American samples of foster children (Barth et al., 2007; Connell et al., 2006; Newton et al., 2000). Although it might be that the Dutch system of permanency planning allows for more instability, the possibly greater instability does not correspond to more placement changes in our study. Our study also showed that planning for reunification was significantly related to prosocial behavior, though it was not in a way we would have expected based on Dutch policies on permanency planning. While we assumed that insecurity on reunification prospects would result in more behavior problems, this study showed that foster children showed less prosocial behavior when it was decided that they would return to their family of origin. Overall the findings provide some support for the conclusion that there are no clear-cut differences between developmental outcomes of foster children due to differences in foster systems between the Netherlands and the United States.

This study also examined the role of several understudied factors. Yet only one of these factors (viz., planning for reunification), which effects we have already discussed above, turned out to be significant in relation to prosocial behaviors. Planning for reunification was negatively related to prosocial behaviors in foster children. An implication based on this finding can be that foster care professionals should be attentive to the behavior functioning of foster children when it comes to reunification. However, for professionals to anticipate and respond correctly to issues of permanency planning, more research on reunification is needed, especially longitudinal research, to examine, for instance, whether plans for reunification lead to a decrease in prosocial behavior, or vice versa. Furthermore, in this study the role of the other understudied factors appeared not clearly distinct and important. Factors on family composition, the presence of other foster children in the foster family, and the legal framework of the foster placement were not significantly related to internalizing, externalizing, or prosocial functioning of foster children. To conclude, these findings add to our understanding because they provide information on what is and what is not predictive of foster children's psychosocial functioning. In a multivariate model it was shown that the role of most understudied factors was not meaningful. This result gives further justification for focusing on those factors which in the current and earlier studies were found to be significantly related to foster children's functioning.

Limitations

The current study examined the relationship between foster child, foster family and foster placement characteristics and children's social and emotional functioning in a sample of Dutch foster children. Longitudinal studies are needed to understand the processes and mechanisms underlying foster children's functioning and the direction of effects (Heath et al.,

1994; McWey et al., 2010; Simmel et al., 2007; Taussig, 2002). For example, is it foster parents' thinking about quitting with foster care that results in behavioral problems in foster children, or does the stress associated with foster children's functioning lead to foster parents' doubts about continuing with foster care? Additionally, we argued that children cared for in stable environments are more likely to have more prosocial behavior. However, in previous research it has been suggested that children may also have an effect on their environment and parenting behavior (Bell, 1968). Longitudinal research to examine the direction, strength, causality, or reciprocity of relations is needed.

Another limitation is the exclusive reliance on foster parent reports. From previous studies it is known that foster parents do not always report in a way and intensity that is similar to reports of foster children themselves, or their teachers (McAuley & Trew, 2000; Strijker, Van Oijen, & Knot-Dickscheit, 2011). For example foster parents have been shown to report more behavior problems than teachers (McAuley & Trew, 2000). On the other hand, it is also suggested that teachers are less sensitive to internalizing behaviors compared to externalizing behaviors (Dubowitz, Zuravin, Starr Jr, Feigelman, & Harrington, 1993; Stanger & Lewis, 1993; Tarren-Sweeney, Hazell, & Carr, 2004). In future research, the use of multiple informants is desirable (Achenbach, McConaughy, & Howell, 1987; Ferdinand, Van der Ende, & Verhulst, 2004; Strijker, Van Oijen, & Knot-Dickscheit, 2011; Van Oijen, 2010).

A last point of attention is the representativeness of the sample. In comparison with the total sample of Dutch foster placements, our sample consisted of fewer short-term placements (< 6 months), more kinship foster families, and more mandated placements. This should be taken into account when interpreting the results of our study.

Conclusion

The current study showed that the behavioral functioning of children in foster care is related to foster child, foster family, and foster placement characteristics. For behavioral problems, interventions aimed at foster children turned out to most strongly account for differences in internalizing and externalizing problems. Because interventions can be developed and implemented by foster care experts and professionals, the findings of the current study suggest important implications for policy and practice in but also outside the Netherlands. In this study it was found that children with many problems more often received additional support than children with fewer problems. This finding is in line with the study of Burns et al. (2004) in which it was shown, in a large nationally representative sample of U.S. children who were investigated by child welfare agencies, that the level of clinical need was the key factor that distinguished foster children who did or did not receive mental health services. At the same time the authors showed that although the degree of behavior problems was not as high as for children who receive support, it was still challengingly high for many foster children who did not receive support (Burns et al., 2004). The foster children in our Dutch sample who did not receive support also scored toward the higher (more problems) end of the 'normal range', though their level of behavioral problems could currently not be categorized as 'borderline' or 'clinical'. On the one hand, this may indicate that needs assessment and indications for interventions are well-implemented and available to those who most urgently need it. On the other hand, the mean scores toward the higher end of the 'normal range' of foster children

not receiving support should also be a clear signal to foster care professionals to carefully monitor the development of all foster children's functioning. Those foster children who receive no intervention are at risk of developing more serious problems. Therefore, routine screening to identify developing problems and to prevent them from worsening is essential. Fortunately, the need for systematic and standardized screening of foster children is an important point that is increasingly recognized by researchers (Chambers et al., 2010; Garwood & Close, 2001; Jee et al., 2010; Tarren-Sweeney, 2007) and progressively comes on the agenda of policy makers and others professionals in foster care (AAP, 2005). Careful screening and monitoring of the development of foster children helps to identify developmental problems at an early stage, and to offer (preventive) support for those foster children and families who need it. Timely recognition and efforts to lower the burden of the foster family are highly valued by foster parents, and related to their motivation to continue with foster care (Rhodes et al., 2001; Van den Bergh, 2013). Thinking about quitting with foster care was one of the foster family characteristics that was also significantly related to foster children's social and emotional functioning in the current study. The shortage of foster families to care for children who cannot be cared for by their own parents and the highly valued benefits of foster care over other forms of out-of-home care stress the importance to carefully screen and monitor, and listen to signals of foster parents so that they feel valued and remain motivated to take care of the vulnerable population of foster children.