Title: Parenting Stress among Norwegian Kinship and Non-kinship Foster Parents

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Abstract

There are several studies conducted on parenting stress, and the conclusion in the parenting stress research literature is generally that parenting stress decreases the quality of the parent-child relationship. There are however few studies on parenting stress comparing kinship homes to ordinary types of foster homes. The aims of this study were to measure parenting stress in kinship and non-kinship foster homes and to explore factors that predict parenting stress related to the child and to their role as foster parents. Results show that kinship-foster parents experienced higher stress related to the parent domain i.e. depression and relationship problems with the spouse. This was associated with kinship foster parents being of older age and receiving fewer social support services. Non-kinship foster parents experienced higher parenting stress related to the child domain i.e. child's acceptability and adaptability in the family. This was associated with children in non-kinship foster homes having higher internalizing and externalizing mental health problems. The implications are that different types of support are needed for kinship foster parents and non-kinship foster parents. More differentiated support for foster parents may help prevent parenting problems and increase placement permanency.

Introduction

In Norway, child protection services (CPS) have a family service orientation. This means that CPS does not only investigate cases for the purpose of substantiation of suspected abuse or neglect, but has a broader mandate to identify needs and offer home based services for children and families. Sometimes though, children need to be removed from their homes due to abuse, neglect, or other forms of maltreatment. In Norway, only about 1.4 % of all cases reported to child welfare services in 2014 were taken to child and family court for decision about foster care placement. Kinship foster homes have the same formal status as non-kin foster homes and the standards for approval should be the same. This means that the parents must be pre-approved as foster home by CPS, and that the foster parents should be offered a 20 hour introductory training in their role as foster parents. The foster parents receive some economic support and if the child has any special needs the foster parents should be offered additional supervision. At the time this study was carried out there were no training or supervision specifically aimed at kinship foster parents. The proportion of children living in kinship foster care in Norway has been increasing the last 15 years as a result of a shift in policy towards more use of kinship care. At the end of 2015, 17 337 children were living in foster homes in Norway, 23.6 % of those were kinship placements (Statistics Norway 2015). It is not known whether this shift in placement practice over time has resulted in lower approval standards for kinship placements, as has been the case in the UK (Farmer, 2009). In Norway increased use of kinship placements have not been followed by attention to whether or not this change in social care policy should be followed by development of new support services for foster parents. More knowledge about the

support needs of kinship foster carers is therefore needed in order to better support foster families. Support for foster parents may prevent placement breakdowns and prevent parenting stress (Winokur, Holtan and Batchelder 2014).

Being a parent can be challenging for anyone, and many parents find the parenting role to be stressful at times due to daily hassles associated with child rearing (Crnic and Greenberg 1990). Such challenges can be temporary and is usually overcome without any need for health or social service. Parenting stress is a term that has been used to describe stress associated with being a parent. There are numerous studies conducted on parenting stress. A significant finding in the parenting stress research literature is that high levels of parenting stress decrease the quality of the parent-child relationship (Neece, Green and Baker 2012). Parenting stress is strongly related to poor parenting, family conflict and marriage breakdown; this in turn can have a negative impact upon children's behaviour (Sanders, Markie-Dadds and Turner 2003). Parenting stress may cause inadequate or dysfunctional parenting, which in turn may lead to mental health problems or conduct problems in children. Some studies have shown that parents who report higher levels of parenting stress are more likely to be authoritarian, harsh, and negative in their interactions with their child (Reedtz 2010). The relationship between parenting stress and mental health problems for children are assumed to interact over time. One study that investigated how the developmental patterns of parenting stress are related to children's internalizing and externalizing problems found evidence for reciprocity for children's externalizing problems and parenting stress. Decreases in parenting stress over time were related to larger decreases in externalizing problems. Decreases in parenting stress were however not associated with decreases in children's internalizing problems over time (Stone et al. 2016).

Compared to the general population, foster children experience a higher incidence of physical, cognitive, developmental emotional and behavioural problems (Blythe et al. 2013; Carbone et al. 2007). Many children living in care, with foster families or in residential care facilities, have high levels of externalizing problems (Holland and Gorey, 2004; Vanderfaeillie, et al. 2012). Because parenting stress may relate to the levels of internalizing and externalizing problems among the foster children they care for, many foster parents are likely to experience stress in relation to the care-giver role. Studies show that children living in kinship foster care on average have less internalizing and externalizing problems compared to children in non-kin foster homes (Holtan et al. 2005; Vis et al. 2014). It is therefore possible that there are differences in levels of parenting stress between kinship foster parents and non-kinship foster parents. One study that assessed the differential effects of children's mental health problems on kinship and non-kinship foster parents parenting stress found that kinship foster parents rated the child's behaviour problems as less severe but that they rated themselves as significantly more stressed. (Timmer, Sedlar and Urquiza 2004). The study did not aim to investigate if other factors may contribute to this effect.

The existing literature on parenting stress in a kinship foster care context is limited. One American study documented increased levels of distress in grandparents raising grandchildren (Kelley 1993). In this study of 41 grandparents raising their grandchildren, almost half the sample scored within the clinical range of the Parenting Stress Index (PSI). The most important predictors of stress in the study were *social isolation* and *restriction of role*. Social isolation refers to grandparents being isolated from peers due to demands of raising young children at a point in life where they would otherwise have few child-care responsibilities. Restriction of role means that assuming

full-time parenting responsibilities for grandchildren may prevent grandparents from adopting a more adult lifestyle (Kelley 1993). This in turn may lead to resentment and anger towards the child or the spouse (Abidin 1995). These parents are at additional risk of developing depressive symptoms, perhaps in response to conflicting feelings of resentment and guilt associated with not being able to pursue other goals in life (Adnopoz 2007).

Symptoms of depression is a stress factor that impacts parental capacity for caregiving. Predictors of depressive symptoms among foster caregivers were investigated by Cole and Eamon (2007). They found that higher income among foster parents increase risk of exhibiting depressive symptoms. This is contrary to findings from studies focusing on the general population where associations between low income and symptoms of depression have been identified. Other factors that predict foster parents depressive symptoms are less than good health, their own trauma history and their levels of responsibility. Foster parents with helpful support had less risk of depressive symptoms (Cole and Eamon 2007).

In addition to differences in parenting stress caused by child mental health problems and parents depression it is known that kinship foster parents are less frequent users of mental health services for their children, that they receive less supervision by caseworkers and that they are given less training and resources to cope with being a foster parent (Timmer, Sedlar and Urquiza 2004). In a case file review of 270 cases in the UK, of which about half were kinship placements, Farmer (2009) found differences in level of services received by kin carers and non-kin carers. Kinship foster carers were more likely to receive low levels of services (69%) compare to unrelated foster carers (47 %). The study found that that there were more often high levels of conflict with

parents in the kinship placement group and that kinship carers were in need of support in contact issues. Interviews revealed that access to consultation groups for kinship carers could be helpful for some carers in lessening their sense of isolation and stress. In a study of placement stability in kinship care (Lutman, Hunt and Waterhouse, 2009) a range of services were identified that may prevent placement disruption. Among these was support with accommodation to reduce pressure on other children in the family, respite care, a consistent social worker and therapy for the child.

One study (Harnett, Dawe and Russell 2014) that looked at both child and carer characteristics as predictors for parenting stress found that grandparents in 17.0 % of cases, experienced personal distress in the caring role above clinical cut-off (on the Parent domain of the Parent Stress Index instrument). This is compared to 4.9 % of non-kin foster parents. Although both groups of carers may benefit from additional support from treatment services the authors argue that grandparents as caregivers may have different needs than other foster carers and that encouraging grandparents to come into treatment should be an important goal for social services.

In a systematic review of the research literature Cuddebach (2004) found strong evidence that grandparents report more limitations of daily activities, increased depression and lower levels of marital satisfaction compared to grandparent that are not foster parents. The review found some evidence that grandparent caregivers may benefit from participation in support groups, but concluded that the findings have limited generalizability. This review also fount that there were strong evidence that kinship foster families receive less training and fewer services and support compared to non kin foster families. The findings were characterized as robust. In a different literature review of stressors that affect kinship foster carers Dunne and Kettler (2006)

identified economic disadvantage, health issues and lack of resources as sources of stress for kinship foster parents.

Aims of the study

The purpose of the present study was to examine differences between perceived parenting stress among kinship foster parents and non-kin foster parents. A secondary goal was to investigate differences in support and services received by non-kin and kinship foster parents. Lastly, we aimed to study how the characteristics of kinship and non-kin foster homes, support and services, and the mental health characteristics of foster children living in kinship and non-kin foster homes, predicted parenting stress among foster parents.

Methods

Participants

Participants in this study were non-kin and kinship foster homes in Norway. This article use data collected in the year 2000 for a longitudinal study of kinship and non-kinship foster homes. Mental health profiles for children in this sample have been reported in several previous studies (Holtan et al. 2005; Vis et al. 2014). The sample consists of 209 homes where a child had been placed in foster care or kinship care at young age (M = 2.2 years, SD = 1.0). On average the children had been living with the caregivers for about five years at the time of the study. There were 95 ordinary foster homes and 114 homes of kinship foster care. Both foster care and kinship care placements were court ordered.

Design and procedure

This study use data from a longitudinal study about kinship foster care in Norway. The current study is a cross sectional study, examining differences in kinship foster care and non-kin foster care. Data were collected trough questionnaires that were completed by the caregivers. The study was approved by the regional committees for medical and health research ethics in Norway, and was conducted in line with the Helsinki Declaration of ethical principles for medical research involving human subjects published by the World Medical Association (WMA 2008).

Measures

The questionnaire included the following topics:

Demographic characteristics of foster mothers. Personal demographic variables included age, marital status, number of children in household, education, family income, and whether or not the foster home was situated in the same local community the child used to live in before the child was taken into foster care. Additionally, the foster carers were asked to state whether or not they had contemplated termination of the foster care contract.

Demographic characteristics of foster children. Personal demographic variables included age and years in current foster home.

Parenting stress. Parenting stress was measured using the Parent Stress Index, version 3 (Abidin 1995). Parents completed the PSI questionnaire, which consists of 101 items rated on a five point Likert scale measuring parents' perceived total stress (Abidin 1995). Internal consistency was high (α = .99). The index consists of two stress domains. The Child Domain consist of child characteristics that contribute to parenting stress, i.e. Adaptability (the child's ability to adapt to changes in the environment), Acceptability (the child is not as attractive or pleasant as the parent had hoped), Demandingness (in older

children, as in this sample, demandingness relates to problems with compliance), and Distractability/Hyperactivity (behaviours associated with attention and hyperactivity disorders). The Parent Domain consists of sources of stress that are related to parent's functioning, i.e. Depression (that parent find it difficult to mobilize energy to fulfil parenting responsibilities), and Relationship with spouse (emotional and practical support in upbringing of the child),

Scores above 85 percentile on the 8 year norms (Abidin 1995) were used as indication of clinical significance of problems. This equals Total Stress scores above 250.

Children's mental health problems. Children's externalizing and internalizing problems were measured with Child Behavior Checklist (CBCL). The problem part of the CBCL consists of 118 items rated on 0–2 scale addressing various emotional and behavioural problems (Achenbach 1991). Externalizing problems are problems related to aggressive and delinquent behaviour. Internalizing problems are related to anxiousness/ depression and withdrawnness. Total problems are the sum of internalizing and externalizing problems. To determine if problems were in clinical range the total problem score was converted to *t*-scores using the ASEBA software package (Assessment Data Manager ver. 7.2). A t-score above 60 points was defined as clinical range (Achenbach 1991).

Support and services for foster parents. The type of health and social services the foster parents had received were measured by asking the foster parents to indicate which services they had received during the last 24 months. The questionnaire listed 10 types of services, shown in Table 3.

Data analyses

Descriptive statistics were used to explore the characteristics of foster homes and foster children. T-tests and chi square tests were used to assess the differences between non-kin and kinship foster families. T-tests were used to compare non-kin and kinship foster parents' scores on the PSI. Chi square tests were used to assess differences in perceived support and services available for non-kin and kinship foster families.

Hierarchic, linear regression analysis was used to study which factors predicted foster parents parenting stress on both the parent domain and the child domain variables.

Child characteristics were entered as step one because previous research have identified a relationship between child mental health and parenting stress. Foster homes were entered at step two to test for the significance of family characteristic upon parenting stress, when child problems had been controlled for. Amount of services were entered as step three.

Results

There were several differences in caregiver characteristics between the foster care group and the kinship care group (Table 1). Most notably did kinship foster parents have lower education and income. Almost 80 per cent of the kinship foster mothers were married, while as 89 per cent of the non-kin foster mothers were married. The kinship foster homes were more likely to be located in the same local community as the child used to live in prior to placement in foster care. Additionally, were the kinship foster parents less likely to have considered terminating the foster care contract. The average age of the foster children were 8.6 (SD = 2.5) years. The children in non-kin foster care scored higher on internalizing and externalizing problems and on total problems, as measured by the Child Behaviour Checklist (CBCL). This indicates that non-

kin foster parents rate the child as having more symptoms of mental health problems compared to kinship foster parents. It was no difference between foster care children and kinship care children with regards to the proportion of children that scored within clinical range for symptoms of mental health problems. Detailed demographic information is displayed in table 1.

Insert table 1 here.

There were no significant differences in total parenting stress between the two groups of foster parents. There were however significant differences between the two groups on both the child domain scores and the parenting domain scores. The non-kin foster mothers reported higher levels of stress related to four sub-scales in the PSI Child Domain. The subscales the non-kin foster mothers scored higher on were: Adaptability, Acceptability, Demandingness and Distractability/Hyperactivity. In the PSI Parent Domain, the non-kin foster parents scored significantly lower on two sub scales. These subscales were: Depression Relationship with spouse Some of the foster parents (15.2 %) experienced clinical significant levels of stress.

- Insert table 2

There were some significant differences in the support and services available for the two groups of foster parents. Kinship foster mothers reported to be significantly less involved in service planning. They also reported less access to professional guidance on parenting and less access to follow up from special education counsellors. Furthermore, the kinship foster parents had to a lesser extent participated in introduction

programmes for foster parents. They also reported to have less access to economic compensation to be able to have paid leave in order to take care of the child.

- Insert table 3

Significant predictors of parenting stress were identified. On the PSI Parent Domain (i.e. stress related to parent functioning), we found that both child characteristics and parental characteristics explained levels of parenting stress. Amount of professional support did not explain stress related to the parents functioning. Notably did high age in foster mother and high income help predict parenting stress in the PSI Parent Domain. Stress on the PSI Child Domain (i.e stress related to qualities displayed by the child) was predicted by child characteristics and amount of professional support but not by foster parents characteristics. The strongest predictors of Child Domain stress were child gender (boys), externalizing and internalizing problems. Lack of access to professional services predicted a small proportion of the variance in the PSI Child Domain scores.

- Insert table 4

Discussion

The study shows that about 15 per cent of the foster parents experienced parenting stress above clinical cut-off. This is considerably lower than in other studies that focused on stress among grandparents as caregivers (Kelly 1993; Harnett et al. 2012) Parenting stress in this study sample, was no higher than in the normal population. Still, the findings indicate that some of the parents experience high levels of stress. The findings show that families who receive more support, guidance and follow up from specialist services experience less stress related to the child's

problems. This is an indication that support and assistance in caring for their foster child or in their role as foster parent is helpful for foster parents.

The proportion of parents that scored above clinical cut-off was equally high among kinship and non-kinship foster parents. This is contrary to the findings in the study by Harnett et al. (2012) who in an Australian sample reported a higher proportion of clinical parenting stress among carers that were grandparents. This and our study are however not directly comparable because we did not separate between grandparents and other relatives as kinship carers in this study. It is therefore possible that there are some extra stressors related to being a grandparent and a foster carer that we were not able to isolate in this study.

There were several demographical differences between the two groups of foster carers in this current study. We found that kinship foster parents were older and had a lower socio-economic status than non-kin foster mothers. Even though there were no significant differences in overall parenting stress, as measured by the PSI Total Score , the PSI sub Domain Scores indicated that the two groups experienced different kinds of stressors related to being a foster parent.

Non-kin foster parents experience more stress in the child domain compared to the kinship foster parents. This was to a large degree explained by the children in non-kinship families displaying higher levels of externalizing and internalizing mental health problems. When controlling for these differences non-kin foster careers does not seem to experience more stress related to the child's behaviour than do non-kin

foster carers. Foster home characteristics did not explain any significant proportion of variation in stress related to the overall Child Domain scores.

On the PSI Child Domain, non-kin foster carers scored higher on four subscales. They reported higher stress related to the child's adaptability One possible explanation may be that children in non-kin foster homes have a harder time adapting to the new life situation after having been placed in foster care than children that have been placed in kinship foster care. This may become particularly evident if the child also has significant mental health problems. Non-kin foster mothers also reported to have higher levels of stress related to their feelings of acceptability towards the child. This may indicate that kinship foster parents knows the child better before taking on the role as foster parents and therefore have a more realistic view of how acceptable the child is to them. It is also possible that there are different motivations for taking on a foster child when the child is a kin. There is often a sense of duty (Thørnblad 2011) associated with becoming a kinship foster parent whereas many non-kin foster parents may also motivated by fulfilment of own personal and family goals, i.e. having a child in the family. It is likely that difference in motivation towards engaging in a foster care arrangement impacts the threshold for how acceptable parents do find the foster child to be. This interpretation is further supported by the finding that non-kin foster parents were significantly more likely to have considered termination of the foster care contract than were kinship foster parents. Non-kin foster mothers additionally scored higher on stress related to the Demandingness and Distractability and Hyperactivity domains. This should be seen in relation to the higher scores on CBCL, found among children in non-kin foster homes. It is likely that increased parenting stress related to the child's demandingness and hyperactivity is a function of more symptoms of behaviour problems and emotional problems among the children in non-kin foster homes.

The kinship foster carers scored higher on parent domain stress. This indicates that kinship carers to a larger degree experience stress that is not directly related to the child. Kinship foster parents scored significantly higher on the Depression and Relationship With Spouse sub domains. This indicated that the kinship foster mothers had more depressive symptoms related to the situation. This may be due to several reasons. One explanation may be grief connected to the situation that caused a family member to lose parental responsibilities in the first place. Often the kinship foster mothers are the grandparents of the foster child, and they may have experiences traumatic situations related to their own child's situation that led to the foster placement in the first place, e.g., substance abuse disorders or parental mental illness. Another significant difference in the Parent Domain scores was related to Relationship with the spouse. Non-kin foster mothers had significantly less stress related to the relationship with their spouse. A possible explanation to this may be that non-kin foster parents to a larger extent have commonly decided to become foster parents, and actively pursued the status as foster parents. Kinship foster homes however may have other reasons for having agreed to become foster parents, e.g., familial commitment and sense of duty.

The regression model that was developed in order to identify predictors for Parent Domain stress did show that higher foster carer age and higher family

income predicted stress on the Parent Domain over and above kin/non-kin relationship. It is possible that the age effect in this model is caused by the fact that our kinship group contains both grandparents and other relatives such as aunts and uncles as foster carers. Care should therefore be taken before concluding that kinship is not an important predictor for parent domain stress. It is possible that increased levels of depression as well as stress related to relationship with spouse is more pronounced among kinship carers that are grandparents than they are among aunts and uncles.

The finding that higher family income predicts Parent Domain stress is in line with Cole and Eamons (2007) findings that foster carers with higher income are at higher risk of exhibiting depressive symptoms. The explanation for this effect is not entirely clear. It is however possible that families with lower socioeconomic status have lower expectations towards the child's behaviour and academic achievements and therefore are more accepting of children with problems.

Study limitations

The study has some notable limitations. Because there are no available Norwegian norms for older children (Kornør and Martinussen 2011), the US norms displayed in the PSI manual were used to determine clinical cut-off levels. This may have lead to inaccurate estimates of the proportion of foster carers that score in clinical range. Because of the limited sample size used for this study we were not able to conduct separate analyses for different types of kinship foster homes. We were therefore not able to confidently identify predictors of parenting stress that pertains specifically to grandparents. Because the study design is cross-sectional we are not able to

determine causation of the relationship between child mental health problems and parenting stress. Because the sample was recruited for a longitudinal study in year 2000 it is not known how representative the sample is for foster carers that care for young children today. Because the sample used in this study consists of stable foster homes, where a child had been placed in foster care or kinship care at a young age the conclusions are not necessarily valid for all types of foster care placements. For example is it likely that taking care of youths placed in care in adolescence might cause other types of stress among kinship and non-kinship foster parents. A foster parent self-report was used to measure both their own levels of stress and the children's mental health and social functioning. Use of multi informants for assessment of mental health problems among young children is preferable therefore a more accurate measure of child mental health could have been obtained. It is possible that stress levels of the foster parents impacted the rating of mental health symptomatology among their foster children. Additionally there were several differences between the two groups of kinship and non-kinship foster families that that may have biased the results, e.g. number of children, age, education and family income.

Conclusion

Norwegian foster parents, including non-kin and kinship foster parents, score comparable to the normal population on overall parenting stress. However, the stress the two groups report, seem to have different sources. Non-kin foster parents' stress is more likely to be linked to the child's behavioural and mental health

problems. Kinship foster parents do to a larger extent report stress in relation to depression and lack of support from partner. The implications are that different types of support are needed for kinship foster parents and non-kinship foster parents. In particular may non kin foster parents benefit from support in their parenting role that is directly related to management of the child's emotional and behavioural problems and perhaps also preparation for what it is like to be caring for a child that have experienced traumatic incidents earlier in their upbringing. Kinship foster parents on the other hand may be more in need of support and preparation for how being a parent at older age affects family life, and what it is like being both a relative and at the same time providing a paid care service for the child. More differentiated support for foster parents may help prevent parenting problems and increase placement permanency. Management of contact and conflict with the biological parent may also be especially challenging for kinship foster carers and special counselling for assistance with this may be needed. Grandparents that are foster carers may be in need of more respite care to be able to be able to manage to care for a young child at a late stage in life. It is worrying that kinship foster parent receive significantly less help and assistance for the child and receive less training and guidance in preparing and managing their role as foster parents. Kinship foster parents should have better access to support systems and specialist services. A first step towards achieving this could be to further investigate the reasons why kinship foster carers does not receive the same support services as non-kin foster carers.

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Table 1: Characteristics of foster homes and foster children

	Kin	Kin		tin	p- value
	M	SD	M	SD	
	(n)	(%)	(n)	(%)	
Caregiver characteristics					
Age of foster mother	47.1	8.7	42.5	5.3	***
Number of other children in the household	.7	1.0	1.3	1.0	***
Marital status					
Married or co-habiting as married	91	79.8	89	93.7	**
Single household	23	20.2	6	6.3	
Highest family education					
Low Compulsory school ≤ (9 years)	75	65.8	44	46.3	**
High Compulsory school ≥ (9 years)	39	34.2	51	53.7	
Family income					
Low (≤ 400 000 NOK)	59	55.7	21	28.0	***
Normal or high	47	44.3	54	72.0	

No 94 89.5 57 75.0 Foster home is locate in the same local community as child used to live Yes 70 61.4 39 41.5 ** No 44 38.6 55 58.5 Parent stress above 85 percentile (PSI total stress > 250) No 68 81.9 66 88.0 Ns Yes 15 18.1 9 12.0 Child characteristics Age of foster child 8.5 2.4 8.7 2.6 Ns Externalizing problems (CBCL) 8.5 8.4 11.8 9.3 ** Internalizing problems (CBCL) 8.5 8.4 11.8 9.3 ** Internalizing problems (CBCL) 5.2 6.3 7.0 7.3 * Total problems (CBCL) 22.9 20.7 33.4 24.1 ** CBCL total problems in clinical range Yes 33 31.7 29 32.2 Ns	Have considered to terminate the foster care contract	11	10.5	19	25.0	*
Foster home is locate in the same local community as child used to live Yes 70 61.4 39 41.5 ** No 44 38.6 55 58.5 Parent stress above 85 percentile (PSI total stress > 250) No 68 81.9 66 88.0 Ns Yes 15 18.1 9 12.0 Child characteristics Age of foster child 8.5 2.4 8.7 2.6 Ns Years in current foster home 5.0 2.7 5.0 2.6 Ns Externalizing problems (CBCL) 8.5 8.4 11.8 9.3 ** Internalizing problems (CBCL) 5.2 6.3 7.0 7.3 * Total problems (CBCL) 5.2 6.3 7.0 7.3 * CBCL total problems in clinical range Yes 33 31.7 29 32.2 Ns	Yes	11				•
used to live Yes 70 61.4 39 41.5 *** No 44 38.6 55 58.5 ** Parent stress above 85 percentile (PSI total stress > 250) Stress of the color	NO	94	89.5	5/	/5.0	
No						
Parent stress above 85 percentile (PSI total stress > 250) No 68 81.9 66 88.0 Ns Yes 15 18.1 9 12.0 Child characteristics Age of foster child 8.5 2.4 8.7 2.6 Ns Years in current foster home 5.0 2.7 5.0 2.6 Ns Externalizing problems (CBCL) 8.5 8.4 11.8 9.3 ** Internalizing problems (CBCL) 5.2 6.3 7.0 7.3 * Total problems (CBCL) 22.9 20.7 33.4 24.1 ** CBCL total problems in clinical range 33 31.7 29 32.2 Ns	Yes	70	61.4	39	41.5	**
Parent stress above 85 percentile (PSI total stress > 250) No Yes 68 81.9 66 88.0 Ns Yes 15 18.1 9 12.0 Child characteristics Age of foster child 8.5 Years in current foster home 5.0 Externalizing problems (CBCL) 15 18.1 18 9 12.0 Ns Years in current foster home 5.0 2.7 5.0 2.6 Ns Externalizing problems (CBCL) 8.5 8.4 11.8 9.3 ** Internalizing problems (CBCL) 22.9 20.7 33.4 24.1 ** CBCL total problems in clinical range Yes 33 31.7 29 32.2 Ns	No	44	38.6	55	58.5	
No 68 81.9 66 88.0 Ns Yes 15 18.1 9 12.0 Child characteristics Age of foster child 8.5 2.4 8.7 2.6 Ns Years in current foster home 5.0 2.7 5.0 2.6 Ns Externalizing problems (CBCL) 8.5 8.4 11.8 9.3 ** Internalizing problems (CBCL) 5.2 6.3 7.0 7.3 * Total problems (CBCL) 22.9 20.7 33.4 24.1 ** CBCL total problems in clinical range Yes 33 31.7 29 32.2 Ns						
No 68 81.9 66 88.0 Ns Yes 15 18.1 9 12.0 Child characteristics Age of foster child 8.5 2.4 8.7 2.6 Ns Years in current foster home 5.0 2.7 5.0 2.6 Ns Externalizing problems (CBCL) 8.5 8.4 11.8 9.3 ** Internalizing problems (CBCL) 5.2 6.3 7.0 7.3 * Total problems (CBCL) 22.9 20.7 33.4 24.1 ** CBCL total problems in clinical range Yes 33 31.7 29 32.2 Ns	Parent stress above 85 percentile (PSI total stress > 250)					
Child characteristics Age of foster child 8.5 2.4 8.7 2.6 Ns Years in current foster home 5.0 2.7 5.0 2.6 Ns Externalizing problems (CBCL) 8.5 8.4 11.8 9.3 ** Internalizing problems (CBCL) 5.2 6.3 7.0 7.3 * Total problems (CBCL) 22.9 20.7 33.4 24.1 ** CBCL total problems in clinical range Yes 33 31.7 29 32.2 Ns	· · · · · · · · · · · · · · · · · · ·	68	81.9	66	88.0	Ns
Child characteristics Age of foster child 8.5 2.4 8.7 2.6 Ns Years in current foster home 5.0 2.7 5.0 2.6 Ns Externalizing problems (CBCL) 8.5 8.4 11.8 9.3 ** Internalizing problems (CBCL) 5.2 6.3 7.0 7.3 * Total problems (CBCL) 22.9 20.7 33.4 24.1 ** CBCL total problems in clinical range Yes 33 31.7 29 32.2 Ns	Yes	15	18.1	9	12.0	
Age of foster child 8.5 2.4 8.7 2.6 Ns Years in current foster home 5.0 2.7 5.0 2.6 Ns Externalizing problems (CBCL) 8.5 8.4 11.8 9.3 ** Internalizing problems (CBCL) 5.2 6.3 7.0 7.3 * Total problems (CBCL) 22.9 20.7 33.4 24.1 ** CBCL total problems in clinical range Yes 33 31.7 29 32.2 Ns				-		
Years in current foster home 5.0 2.7 5.0 2.6 Ns Externalizing problems (CBCL) 8.5 8.4 11.8 9.3 ** Internalizing problems (CBCL) 5.2 6.3 7.0 7.3 * Total problems (CBCL) 22.9 20.7 33.4 24.1 ** CBCL total problems in clinical range Yes 33 31.7 29 32.2 Ns	Child characteristics					
Years in current foster home 5.0 2.7 5.0 2.6 Ns Externalizing problems (CBCL) 8.5 8.4 11.8 9.3 ** Internalizing problems (CBCL) 5.2 6.3 7.0 7.3 * Total problems (CBCL) 22.9 20.7 33.4 24.1 ** CBCL total problems in clinical range Yes 33 31.7 29 32.2 Ns	Age of foster child	8.5	2.4	8.7	2.6	Ns
Externalizing problems (CBCL) 8.5 8.4 11.8 9.3 ** Internalizing problems (CBCL) 5.2 6.3 7.0 7.3 * Total problems (CBCL) 22.9 20.7 33.4 24.1 ** CBCL total problems in clinical range Yes 33 31.7 29 32.2 Ns	S .	5.0	2.7	5.0	2.6	Ns
Internalizing problems (CBCL) 5.2 6.3 7.0 7.3 *					9.3	**
Total problems (CBCL) 22.9 20.7 33.4 24.1 ** CBCL total problems in clinical range 33 31.7 29 32.2 Ns			6.3		7.3	*
CBCL total problems in clinical range Yes 33 31.7 29 32.2 Ns		22.9				**
Yes 33 31.7 29 32.2 Ns	10441 \$100101110 (02.02)			00.1		
Yes 33 31.7 29 32.2 Ns	CBCL total problems in clinical range					
		33	31.7	29	32.2	Ns
	No	71	68.3	61	67.8	

Table 2: Comparison of kinship foster care Parenting Stress Index Scores to foster parents in non-kin foster care

	Kin (n=	= 83-114)	Non-kin (n= 75-95		p-value	
	M (n)	SD (%)	M (n)	SD (%)		
Child domain score	99.2	25.4	107.4	22.7	*	
Adaptability	23.5	6.1	26.1	7.0	**	
Acceptability	12.7	4.0	14.3	4.7	*	
Demandingness	19.2	6.3	21.3	6.7	*	
Mood	10.1	3.7	11.0	3.3	Ns	
Distractibility/Hyperactivity	22.8	5.7	24.3	5.0	*	
Reinforces parent	11.5	3.7	11.3	3.6	Ns	
Parent domain score	111.1	19.9	104.8	19.1	*	
Depression	17.4	4.1	15.4	4.4	**	
Attachment	13.1	3.1	13.2	3.0	Ns	
Role restriction	15.9	4.4	16.1	3.7	Ns	
Parenting Competence (CO)	27.6	4.8	26.4	4.7	Ns	
Social isolation (IS)	11.4	3.0	10.8	3.3	Ns	
Relationship with spouse (SP)	15.0	4.7	13.5	4.0	*	
Parent health (HE)	10.6	2.6	10.2	2.8	Ns	
Life stress	6.1	7.1	7.0	6.6	Ns	
PSI total score	209.8	42.8	213.0	35.6	Ns	

Table 3: Difference in support and services received

	Kin		Non-kin		p- value
	n	(%)	n	(%)	
Caregiver participate in service planning					**
Yes	14	16.9	28	40.0	
No	69	83.1	42	60.0	
Respite care					Ns
Yes	36	37.0	39	47.0	
No	61	63.0	44	53.0	
Support for child's leisure activities					Ns
Yes	15	17.0	11	16.4	
No	73	83.0	56	83.6	
Professional guidance on parenting					*
Yes	28	32.6	36	48.0	
No	58	67.4	39	52.0	
Paid work leave to care for the child					*
Yes	15	18.5	25	33.8	
No	66	81.5	49	66.2	
Follow up from hospital or medical specialist					Ns
Yes	19	20.1	21	25.3	
No	73	79.3	62	74.7	
Follow up from mental health specialist					Ns
Yes	20	21.3	26	31.7	
No	74	78.7	56	68.3	
Follow up from special education counsellor					*
Yes	27	27.6	38	43.2	
No	71	72.4	50	56.8	
Follow up from physiotherapist or similar				00.0	Ns
Yes	10	11.4	17	20.0	1.0
No	78	88.6	68	80.0	
Participated in introduction program for foster	, 0	0010	20	0010	***
parents					
Yes	75	70.1	70	93.3	
No	32	29.9	5	6.7	

Table 4: Predictors for parenting stress

	Dependen	ıt ^a :	Depender	nt ^b
	Parent		: Child	
	domain		domain	
	stress		stress	
Variables	ΔR^2	ßc	ΔR^2	ß
Step 1:Child	0.22***		0.65***	
characteristics				
Age		12		.03
Sex (0=male)		06		13*
Externalizing problems		.26*		.37***
Internalizing problems		.35**		.36***
Step 2: Family characteristics	0.12*		0.02	
Foster mother age		.29*		.04
Number of other children		10		.07
Marital status (0 = married)		.01		.05
Education (0 = low)		06		00
Income (0 = low)		.23*		.09
Location in same local		01		.05
community (0 = yes)				
Kinship foster care (0 = yes)		11		.01
Step 3: Professional support	0.01		0.01*	
Number of professional services receiv	red	.14		0.15*
$\overline{R^2}$	0.36***		0.68***	

Note: a n = 141, b n = 165, cCoefficients are standardized.