

CHAPTER II: METHODS

Research Design

The study included structured interviews with 207 kinship caregivers, conducted in their homes or another location of their preference. The interviews incorporated established measures of child functioning, caregiver stress, family functioning, social support, family resources, and a simple measure of stability of living arrangement. These interviews also included collection of demographic data describing the caregiver, child, and family, as well as open-ended questions that solicit caregivers' perceptions of the reasons the child is in kinship care, the strengths of their family, relationships between children, parents and caregivers, sources of support and help, and service needs that the family may have. We also conducted follow-up interviews with over 80% of these caregivers again six, twelve and eighteen months later, using the same measures used in the initial interview.

In addition, one-time qualitative interviews were conducted with 56 children to explore their conceptions of family, and perceptions of belonging, permanence, and stability. Children were eligible to participate in interviews if they were eight years of age or older and were the focus of the child behavioral functioning measure in the caregiver interviews. We also conducted one-time interviews with 30 parents of children who were the focus of caregiver interviews to solicit their views of kinship care and their current and future roles in the lives of their children. Caregivers received a financial incentive of \$25 for each interview in which they participated. The 30 parents we interviewed also received \$25 for their participation. The 56 children received fast food gift certificates worth \$10 for their participation in an interview.

Sampling Plan

Power calculation. In our original research plan we projected a sample size of 300 families to ensure adequate power to test our research hypotheses (Cohen, 1977; Green, 1990;

Rochon, 1991). Power in repeated measurement designs depends on the effects of independent variables across time, the within-groups variances at the different time points, the number of repeated measurements, the pattern of the inter-correlations of these measures, and parameters common to estimation of sample size (Overall & Doyle, 1993). As Green (1990) indicated, an average correlation among the repeated measures is an adequate estimate for power calculation for repeated measurement designs, even though these serial correlations may not be uniform. We estimated an average correlation among our repeated measures (child functioning, measured by Child Behavior Checklist) to be .30. Based on the work by Green (1990) and Overall and Doyle (1993), we estimated that a sample size of 192 to be optimal for a design with 4 repeated measures and .30 average correlation to detect a meaningful effect size (.12) with .80 power at the .05 level. Our original goal was to recruit 300 families, taking attrition into account. However, we were not able to recruit a sample this large, even though we extended the recruitment phase of the project by an entire year. Informal kinship caregivers are a relatively hidden population. By definition they are not connected to the child welfare system and many are not connected to any service systems. Therefore, there is no complete sampling frame from which to draw a sample. In addition there are many barriers to recruitment of informal kinship caregivers; for example, caregiver distrust of research and researchers, fear that researchers may report the family to the child welfare system or are actually working for the child welfare system and may take children away from the family and place them in foster care. Although we did not reach our original recruitment target, our analyses suggest that the 207 families with 80% retention through four waves of data collection provide sufficient statistical power to achieve project objectives.

Sample selection. Caregivers were eligible to participate in the study if they were caring for at least one related child, between the ages of 18 months and 10 years of age, for whom they were not the parents. For one family in our sample, the focus child turned 11 years old just before the initial caregiver interview was conducted. Initially we restricted our sample to caregivers living in or actively involved in the greater Grand Boulevard community in Chicago. However, we expanded the geographic area to include all of Cook County (which includes Chicago) and the Collar Counties surrounding Chicago, once it became clear that we would be unable to recruit sufficient numbers of kinship caregiving families into the study sample within a reasonable period of time if we restricted eligibility to the Grand Boulevard community.

It was not possible to identify a complete sampling frame for this study and we did not have the resources to conduct a community household survey to ensure a representative sample. Rather, we reached out to all families who were eligible for this study, focusing most of our energy on communities in the city of Chicago that are known to have high rates of kinship care. Grandparents and other relatives were eligible for this study if:

- The family was not involved with the Department of Children and Family Services at the time of this first interview;
- The child had not been adopted by the caregiver; and
- The child was not previously involved with DCFS and discharged to the relative caregiver through subsidized guardianship.

In two parent families, the person identified by the family as the primary caregiver was interviewed. If there were two or more related children between the ages of 18 months and 10 years of age³ who lived in the home, the child whom the caregiver believed to be most likely to

³ In one family the child had just turned 11 years of age when the caregiver was interviewed.

remain in the home for at least the next two years (to allow for four data collection points over 18 months) was selected as the focus child. If there was more than one child who fit this category, the interviewer selected the child using a random selection process (for example, flipping a coin or writing names on pieces of paper and drawing one blindly). The focus child is the child about whom child functioning and stability of living arrangement data were collected.

Recruitment procedures. Grand Boulevard Federation provided the leadership in recruiting families into the study. The Grand Boulevard Federation hosted community meetings for the purpose of explaining the importance of the study to kinship families and persons who come into contact with these families. These meetings provided opportunities for participants to ask questions and air concerns about the research. Grand Boulevard Federation staff also worked with the project coordinator and research assistants to recruit families into the study at health fairs, parades, celebrations, and other community events. Families were recruited through local schools, churches, recreational programs, and community agencies. Grand Boulevard Federation staff and the Jane Addams College research staff stood outside of schools on report card pick-up days to hand out recruitment flyers. Public service announcements were played on Gospel and popular music radio stations. Gwen Talley hosted panel discussions on two cable TV programs and both of our project coordinators and a number of kinship caregivers participated as discussants. We also reached out to staff of Extended Family Support programs throughout the Chicago area. These programs serve extended families caring for children who were diverted from the child welfare system's custody. Extended Family Support program supervisors were asked to encourage their staff members to distribute recruitment flyers to families that they served who met the project eligibility criteria. Grand Boulevard Federation and Jane Addams College research staff also walked through communities posting and distributing recruitment

flyers and discussing the project with anyone who would listen. We purchased advertising space on CTA buses and in a number of newspapers. We wrote letters to school principals, made presentations to church congregations, and spoke to a staff meeting of over 400 Chicago Public School social workers to ask for their help in recruiting families who might be eligible for the study. We also sent recruitment flyers to families receiving the TANF child-only grant, since a high percentage of these families are receiving this grant to help them care for a relative's child. We also wrote letters and sent recruitment flyers to persons who were listed in public records as having been awarded private guardianship (in probate court) of children who would be of the age to be eligible for the study. We also sent mass mail letters and flyers to all households in communities that were known to have high rates of kinship care. Barb Schwartz of the Illinois Department on Aging was very helpful, particularly late in the recruitment phase. She sent letters and made phone calls to coordinators of all of the grandparent support groups in the Chicago area, encouraging them to distribute flyers to their support group members and to invite these members to consider participating in the study.

We extended our recruitment to the end of October 2003, a year longer than projected in our original proposal with a revised goal of completing interviews with 215 caregivers. October 2003 was the latest we believed we could enroll families, complete the initial interview, and still have time to complete three follow-up interviews, even projecting the possibility of a one-year no-cost extension. We exceeded this revised goal and completed interviews with 219 caregivers, but through interviews at later waves discovered that 12 of the caregivers/families were not eligible for the study (e.g. related children had been adopted prior to the initial interview, were in the custody of the child welfare system, or were not actually living in the home). The final sample included 207 families.

Importance of the Grand Boulevard Federation-Jane Addams College Collaboration

The collaboration of Grand Boulevard Federation and the Jane Addams College of Social Work was essential to ensuring the relevance and usefulness of this research. First, Grand Boulevard Federation is a community-based agency that truly represents the interests of African American families. The organizational leadership and the overwhelming majority of staff are African American and the staff members that worked with this project were also kinship caregivers. The collaboration of this agency and the Jane Addams College grew out of work the Federation was doing to address the needs of these kinship caregiving families and the Jane Addams College of Social Work's research on kinship care. The Federation invited the Jane Addams College to participate in this effort. The Federation was awarded a grant from the Casey Foundation to support development of systems of support for kinship caregiving families. The Jane Addams College participated in this effort. Also, the Jane Addams College was awarded a research fellowship grant for doctoral students and faculty; the faculty project funded a pilot project in collaboration with the Grand Boulevard Federation that provided the foundation for the longitudinal study described in this report. The Grand Boulevard Federation and the Jane Addams College staff worked together during the pilot study to design the larger study. Together we selected measures that would be appropriate for use with kinship caregivers and the children and parents, and designed and tested the recruitment procedures and the measures to be used in the larger study.

The Jane Addams College and Grand Boulevard Federation collaborated in the development of the grant proposal for this study. The grant was awarded to the Jane Addams College at the University of Illinois at Chicago and the College subcontracted with the Grand Boulevard Federation. All major decisions, including hiring decisions involved Grand Boulevard

Federation and the Jane Addams College staff through all four waves of data collection.⁴ The involvement of Grand Boulevard Federation in this process was to ensure that the research assistants had prior experience and attitudes consistent with a culturally competent, respectful approach to families. It was very important to us that the research assistants valued the families and were able to observe both the strengths displayed by these families and the challenges they experience. We were able to assemble an excellent, talented, diverse team. Over the life of this project, the composition of 29 staff persons working directly on this project from both the Jane Addams College of Social Work and Grand Boulevard Federation was 55% African American, 31% Caucasian, 7% Latino, and 7% Asian heritage.

The Grand Boulevard Federation also solicited and monitored community feedback regarding how the research was conducted and participated in dissemination of the results of this project. The Federation staff and Jane Addams College staff participated in regular research team meetings throughout the recruitment and data collection phases of the project. All project staff, both Grand Boulevard and Jane Addams College staff, reviewed summary reports that were completed after the first 95 initial caregivers interviews were conducted and analyzed, and after data collection was completed and a preliminary report generated. The Grand Boulevard Federation staff convened members of their kinship caregiver support group to review the report of the first 95 interviews and met with Jim Gleeson to provide feedback on the report prior to wider distribution. A forum was held in May of 2005 for caregivers who participated in the study and current and former research staff persons, to provide feedback on the preliminary results once all data collection was completed. We later invited caregivers who participated in the study

⁴ All research assistants who interviewed caregivers, children or parents were interviewed by Gwen Talley as well as Jim Gleeson and the project coordinator. Three research assistants who participated in subject recruitment, data entry, transcriptions, or initial data analysis were not interviewed by Gwen Talley; however Jim Gleeson and Gwen Talley did discuss and agree with hiring these staff members.

and the May forum to serve on a kinship caregiver research advisory committee. We convened a meeting of this advisory committee on July 26, 2006 where we again reviewed findings and a preliminary report. The final report has incorporated feedback from participants in all of these events.

Human Subjects Protections and Research Ethics

This study was reviewed and approved by the University of Illinois at Chicago (UIC) Institutional Review Board (IRB#2001-0824). All Grand Boulevard Federation and Jane Addams College of Social Work Staff successfully completed the UIC IRB Investigator Training prior to participating in recruitment of study participants, interviews, data cleaning/verification or data analysis. Our recruitment procedures assured written, prospective, voluntary and informed consent for kinship caregivers and biological parents invited to participate in the study. Procedures for inviting children to participate included caregiver permission, child assent, and if the caregiver was not the legal guardian of the child we attempted to get parental permission as well. If the focus child was at least 8 years of age, we asked the kinship caregiver to consider allowing us to invite the child to participate in an interview. We reviewed a permission form with the caregiver that included all elements of parental/caregiver permission and informed consent. If the kinship caregiver was not the legal guardian but agreed that we could invite the child to participate in an interview, we made good faith efforts to contact the biological parent for their permission. If we were able to reach the parent, we reviewed the parent/guardian permission form with the parent. We received IRB approval to conduct this parental permission process by phone; in these situations we received a waiver of documentation of parental permission and were able to accept verbal permission. If the parent declined, we did not interview the child. The UIC IRB approved a waiver of parental permission in one specific

circumstance: if we received permission from a non-guardian caregiver to interview the child but were unable to reach a biological parent after repeated documented attempts.

We were also careful to protect confidentiality of all study participants using standard procedures such as locked file cabinets, identifiers stored separate from data, etc. It was also important to build in extra protections to ensure study participants that information shared with research assistants would be shared with Grand Boulevard staff only in aggregate; not in ways that could identify the person sharing specific information. Grand Boulevard Federation staff thought that this was a particularly important protection to build in, since some of the study participants were involved in services provided by the agency.

Training and Supervision of Research Assistants who Conducted Interviews

Research assistants hired to conduct interviews had significant human service experience. Most had worked either in child protective service programs providing in-home services to families subsequent to an investigation of child abuse or neglect or in services to families living in public housing developments. Several of our research assistants had both of these types of experience. All displayed respect for the families that we engaged in this study and worked hard to accurately reflect the views of these families.

After completing the required IRB training, research assistants hired as interviewers were trained to conduct interviews with caregivers, children, and parents using the interview protocols developed for this study. The project coordinator conducted this training. Once we had a cadre of trained interviewers, new research assistants also shadowed a trained interviewer for one or more interviews prior to conducting an interview independently.

The project coordinator was responsible for assigning research assistants to interview caregivers, children and parents; however, these decisions were most often made collaboratively

with the research assistants. The project coordinator was also available to consult with research assistants on a regular basis. The principal investigator, co-investigator, and research assistants also met weekly as a research team throughout the sample recruitment and data collection phases. Grand Boulevard staff joined this meeting on a monthly basis. We sometimes met at the Jane Addams College of Social Work and at other times at the Grand Boulevard Federation office.

Data Collection

Interviews with Caregivers

The overwhelming majority of interviews were conducted with kinship caregivers in their own homes. In a few instances caregivers preferred to be interviewed in another location. Trained research assistants conducted these interviews, which averaged approximately 90 minutes, although one interview lasted four hours and a few follow-up interviews were very short. Each caregiver was asked to participate in a total of 4 interviews over an 18-month period (one initial interview and three 6-month follow-up interviews).

The structured interviews included existing empirical measures of child functioning, caregiver stress, family functioning, social support, and family resources. These interviews also posed questions about demographic data describing the caregiver, child, and family, as well as open-ended questions that solicited the caregiver's perception of the reasons the child resides in the home, sources of support and help, and service needs that the family may have. We measured stability of the child's living arrangement by asking whether the child who was the central focus of the interview was still living in the home at time of the second, third and fourth interviews.

Measures Included in Caregiver Interviews

We selected the measures for this study through a thorough review of the research and in consultation with Grand Boulevard Federation staff members who were themselves kinship caregivers and worked closely with kinship caregivers. It was very important to us that the measures we selected were not only methodologically rigorous, but also relevant to the kinship caregivers who would participate in the study. Each of the measures is briefly described in this section. The initial interview protocol is in the Appendix. This protocol includes all of the measures that were used during each of the four interviews, with the exception of the Child Behavior Checklist (CBCL) and the Parenting Stress Index (PSI) because the publishers do not allow duplication of these measures.

Child behavioral functioning is measured using the Child Behavior Checklist (CBCL) Parent Report form. The CBCL is one of the most common measures of child functioning used in research on child welfare and child mental health (Achenbach, 1991; Achenbach & Rescorla, 2001). The CBCL for children 6 to 18 years of age is a 113-item behavior problem checklist. The CBCL for children ages 18 months to five years is a 100-item behavior problem checklist. Higher behavior problem scores indicate that a child has more behaviors in common with behaviorally disordered children. The CBCL has a fifth grade reading level and takes most parents 15 to 17 minutes to complete. However, we used an interview format to ensure that caregivers understood all of the items on the scale, although this increases the administration time.

The reliability and validity of the CBCL have been repeatedly demonstrated. It is the standard against which other measures of child functioning are judged (Doll, 1988). The CBCL has been used in hundreds of research studies. The CBCL has been used in child welfare, special education, and mental health research with diverse populations. Reliability of the CBCL is high

largely because of the very specific descriptions of behaviors that comprise each item. The behaviors are easily understood because they are so clearly and specifically defined.

In this study we use the internalizing, externalizing, and total problem behavior scales. Achenbach and Rescorla (2001) report Cronbach's alpha coefficients of .89, .92, and .95, respectively for these scales. Test-retest reliability is equally strong, .90, .87, and .90 respectively. Good content validity is demonstrated by findings that nearly all items discriminate between children referred for services and non-referred children, and by the thorough and extensive process by which items were selected. Criterion validity is supported by significant discrimination between referred and non-referred children. Concurrent and predictive associations with a number of other measures support construct validity. Since the CBCL is such a well established measure, we relied on prior studies that established the reliability and validity of this measure. We used t-scores rather than raw scores in all of our analyses.

Caregiver stress was measured using the Parental Distress subscale of the short form of the Parenting Stress Index [PSI] (Abidin, 1995). High scores on this subscale suggest high levels of parental stress. In the pilot study we used the longer original version of the PSI but discovered that many of the items on that scale were not relevant to many kinship care situations (e.g. referring to how the caregiver felt upon taking the child home from the hospital). Most items on the short form are relevant to the majority of kinship care situations.

The Parental Stress Index has been used in numerous studies and demonstrates excellent reliability and validity. Abidin (1995) reports six-month test-retest reliability of .84 with a sample of 270 and a Cronbach's alpha of .91 with a sample of 800 for this subscale. The validity of the longer version of the PSI has been repeatedly demonstrated and the short form is highly correlated with the total stress score of the full-length PSI ($r = .77$) and the parent domain of the

full length PSI ($r = .92$). Since the PSI is a well established and well research measure, we relied on prior studies that have established the measure's reliability and validity. While the Parental Stress Index may be completed independently by the parent, in this study research assistants completed the PSI with caregivers in an interview process.

Family functioning is measured in this study with the Beavers Self Report Family Instrument [SFI] (Beavers, Hampson, & Hulgus, 1990). The SFI is a 36-item instrument based on the Beavers-Timberlawn Model of Family Competence. Normally a measure that was normed on college students, as the SFI was, would have been rejected by our research team. However, after reviewing a number of measures of family functioning, we selected the SFI because it appeared to be relevant to the experiences of kinship caregivers in our study and because it does not define "family," allowing the respondents to use their own conceptions of family as a referent. The SFI is meant to be completed by many family members, but in this study it was administered interview style with the kinship caregiver. Internal consistency reliability of the SFI subscales are reported to be in the .78 to .85 range and concurrent validity is reportedly adequate.

The total SFI includes 36 items assessing 5 areas: Family Health/Competence, Conflict, Cohesion, Expressiveness, and Directive Leadership. The items and scoring for the total scale are summarized here: sfi1-sfi36, with sfi5, 8, 10, 13, 14, 18, 19, 24, 25, 27, 30, 31 reverse scored. The items and scoring for each of the subscales follow: Health/Competence = Items 2, 3, 4, 6, 12, 15, 16, 17, 18R, 19R, 20, 21, 24R, 25R, 27R, 28, 33, 35, and 36; Conflict = Items: 5R, 6, 7, 8R, 10R, 14R, 18R, 24R, 25R, 30R, 31R, and 34; Cohesion = Items 2, 15, 19R, 27R, and 36; Expressiveness = Items 1, 9, 13R, 20, and 22; and Leadership = Items 8R, 16, and 32. We calculated the internal consistency reliability of the SFI with our sample for an overall scale

score (table 1) and subscales (table 2) using Cronbach's alpha for each wave and for all waves combined.

Table 1: Internal Consistency Reliability of SFI Total Scale

	<i>Cronbach's alpha</i>	<i># of valid cases^a</i>	<i># of total cases</i>
1 st wave	0.915	181	207
2 nd wave	0.931	164	177
3 rd wave	0.916	170	170
4 th wave	0.927	168	171
Total	0.922	683	725
# of total items	36		

^a Cases with missing data on a single item are deleted by default (listwise deletion). The valid number of cases is the number of cases included in computing Cronbach's alpha.

Table 2: Internal Consistency Reliability of SFI Subscales

		<i>Cronbach's alpha</i>	<i># of valid cases^a</i>	<i># of total cases</i>
Health/Competence	1 st wave	0.895	190	207
	2 nd wave	0.904	168	177
	3 rd wave	0.895	170	170
	4 th wave	0.907	169	171
	Total	0.900	697	725
	# of items	19		
Conflict	1 st wave	0.847	196	207
	2 nd wave	0.870	171	177
	3 rd wave	0.835	170	170
	4 th wave	0.870	171	171
	Total	0.856	708	725
	# of items	12		
Cohesion	1 st wave	0.681	204	207
	2 nd wave	0.721	173	177
	3 rd wave	0.735	170	170
	4 th wave	0.693	170	171
	Total	0.706	717	725
	# of items	5		
Expressiveness	1 st wave	0.731	199	207
	2 nd wave	0.833	174	177
	3 rd wave	0.759	170	170
	4 th wave	0.760	170	171
	Total	0.772	713	725
	# of items	5		
Leadership	1 st wave	0.286	205	207
	2 nd wave	0.071	175	177
	3 rd wave	0.098	170	170
	4 th wave	0.373	171	171
	Total	0.225	721	725
	# of items	3		

^a Cases with missing data on a single item are deleted by default (listwise deletion). The valid number of cases is the number of cases included in computing Cronbach's alpha.

Our review of the literature did not indicate that a total scale has been used or that reliability or validity of the total scale has been established. Therefore, we did not use this measure in later analyses. Our review indicates that subscales of this measure are most often used. Internal consistency reliability is strong for the Health/Competence and Conflict subscales, acceptable for the Cohesion and Expressiveness subscales, and very poor for the Leadership subscale. In all later analyses we use the Family Health/Competence scale, which has the strongest internal consistency reliability and provides the best measure of overall family functioning, among the subscales.

Social support is measured with the Family Support Scale (Dunst, Jenkins, & Trivette, 1984). The Family Support Scale has 18 items each representing a different potential member of the respondent's social network (e.g. parents, partner, friends, etc). Respondents rate the helpfulness of each in raising children over the past three to six months (1=not at all helpful; 5=extremely helpful). There are two additional items that allow respondents to include others not listed in the 18 preceding items; these two items are also rated on the same five-point scale.

The Family Support Scale has been used in a number of studies that examined the effect of social support on parent health and well-being, family integrity, parental perceptions of child functioning, and styles of parent-child interaction. Internal consistency reliability reported by the authors is .77 and validity is reported to be good. There are a substantial number of items that are rated either as not applicable or not available; we treated these items as missing when we scored the scales and subscales. We scored the scale and subscales by adding responses and dividing by the number of items to which the caregiver responded; this allowed us to include all respondents even if they did not respond to all items. However, when we calculated Cronbach's alpha we treated not available as "0". To treat this value as missing would result in far too few items to

calculate a reliability coefficient that we could depend upon. The items for the Informal Kinship subscale are items 6, 7, 8, 9, and 13; for Social Organization items 10, 11, and 12; for Formal Kinship items 1, 3, and 4; for Immediate Family items 2 and 5; for Specialized Professional Services items 15, 16, and 17; and for Generic Professional Services items 14, and 18. Internal consistency reliability is presented for the total scale for our sample in table 3 and for the subscales in table 4. Cronbach's alpha is presented for each wave and for all waves combined. Internal consistency reliability is adequate for the total scale and marginal to very poor for the subscales. We used the total scale score in all subsequent analyses.

Table 3: Internal Consistency Reliability of Family Support Total Scale

	<i>Cronbach's alpha</i>	<i># of valid cases^a</i>	<i># of total cases</i>
1 st wave	0.763	196	207
2 nd wave	0.714	174	177
3 rd wave	0.735	167	170
4 th wave	0.765	169	171
Total	0.746	706	725
# of total items		18	

^aCases with missing data on a single item are deleted by default (listwise deletion). The valid number of cases is the number of cases included in computing Cronbach's alpha.

Table 4: Internal Consistency Reliability of Family Support Subscales				
		<i>Cronbach's alpha</i>	<i># of valid cases^a</i>	<i># of total cases</i>
Informal kinship	1 st wave	0.541	205	207
	2 nd wave	0.556	176	177
	3 rd wave	0.467	170	170
	4 th wave	0.566	170	171
	Total	0.536	721	725
	# of items		5	
Social organization	1 st wave	0.609	204	207
	2 nd wave	0.456	176	177
	3 rd wave	0.428	170	170
	4 th wave	0.482	170	171
	Total	0.500	720	725
	# of items		3	
Formal kinship	1 st wave	0.397	205	207
	2 nd wave	0.379	177	177
	3 rd wave	0.367	168	170
	4 th wave	0.378	170	171
	Total	0.380	720	725
	# of items		3	
Immediate family	1 st wave	0.525	206	207
	2 nd wave	0.639	177	177
	3 rd wave	0.489	169	170
	4 th wave	0.585	170	171
	Total	0.564	722	725
	# of items		2	
Specialized professional services	1 st wave	0.534	205	207
	2 nd wave	0.540	175	177
	3 rd wave	0.650	170	170
	4 th wave	0.583	169	171
	Total	0.578	719	725
	# of items		3	
Generic professional services	1 st wave	0.267	204	207
	2 nd wave	0.144	177	177
	3 rd wave	0.329	169	170
	4 th wave	0.368	169	171
	Total	0.282	719	725
	# of items		2	

^a Cases with missing data on a single item are deleted by default (listwise deletion). The valid number of cases is the number of cases included in computing Cronbach's alpha.

Family resources are measured using the Family Resource Scale created by Leet and Dunst (in Dunst, Trivette, & Deal, 1988). This 31 item scale measures the adequacy of different financial, material and other resources in households with children. Dunst, Trivette, and Deal (1988) report that the reliability and validity of the measure were established in a study of young

mothers with special needs children, revealing internal consistency reliability over .90 and good validity.

A number of studies have been conducted to determine what subscales can be constructed from this scale, with considerably different results. Dunst and Leet (1987) identify seven subscales: (1) Food and shelter; (2) Financial resources; (3) Time for family; (4) Extrafamily support; (5) Childcare; (6) Specialized child resources; and (7) Luxuries. Dunst, Trivette, and Deal (1988) describe the subscales defined by Dunst and Leet a bit differently: (1) Growth and Financial Support; (2) Health and Necessities; (3) Primary Nutrition and Protection; (4) Physical Shelter; (5) Intrafamily Support; (6) Communication and employment; (7) Child care; and (8) Independent Source of Income. Herman and Thompson (1995) identified four subscales: (1) Basic Resources; (2) Time Resources; (3) Money Resources; and (4) Child-related Resources. Van Horn, Bellis, and Snyder (2001) also identified four subscales, with the first two similar to Herman and Thompson: (1) Basic Needs; (2) Money; (3) Time for Self; and (4) Time for Family. Brannan, Manteuffel, Holden, and Heflinger (2006) identified six subscales: (1) Basic needs; (2) Housing and Utilities; (3) Benefits; (4) Child Care; (5) Social Needs/Self care; and (6) Extra Resources.

We used the total scale score and did not analyze subscales for this measure. We scored the scale and subscales by adding responses and dividing by the number of items to which the caregiver responded; this allowed us to include all respondents even if they did not respond to all items. However, when we calculated Cronbach's alpha we treated "does not apply" as "0". To treat this value as missing would result in far too few items to calculate a reliability coefficient that we could depend upon. The internal reliability of the Family Resource Scale total score is quite good for each wave and all waves combined (table 5).

Table 5: Internal Consistency Reliability of Family Resource Total Scale

	<i>Cronbach's alpha</i>	<i># of valid cases</i>	<i># of total cases</i>
1 st wave	0.881	188	207
2 nd wave	0.893	172	177
3 rd wave	0.883	167	170
4 th wave	0.887	170	171
Total	0.887	697	725
# of total items		31	

Stability of living arrangement was measured with a simple dichotomous measure. As each follow-up interview was scheduled, caregivers were asked whether the child was still living with the family. If the child still resided with the caregiver, stability was coded “1”. If the child no longer lived with the family, stability was coded “0”.

Interviews with Children

Fifty-six children were interviewed in their caregivers’ home. Caregivers were asked to help the research assistants by locating a private area of the family home to conduct the interviews. This was not always possible given limited space and the large number of persons in some of the caregivers’ homes. We began the interviews only after explaining the study to the children and conducting the assent process. If children provided their written assent we began the interviews using a modified version of procedures developed by Altshuler (1999) to interview children in formal kinship care living arrangements. Altshuler began interviews with children by asking the children to participate in construction of a genogram depicting the family. In our study, research assistants drew a “family tree” with the children, asking them to identify all persons they considered to be members of their family. Names of these family members were written on limbs of the tree. We found this to be a successful way of engaging the child in the interview process and learning about the child’s conception of family. The children were also

asked to indicate which of the family members they felt closest to. This was followed by a small number of open-ended questions, which explored the child's sense of belonging, the degree to which they feel like a member of a family, sense of permanence, and sense of stability in their living arrangement.

Interviews with Biological Parents

In-depth, qualitative interviews were conducted with a sub-sample of 30 biological mothers and fathers of the children in our sample. These interviews examined their perceptions of the reasons that their children were living with kin, their satisfaction and dissatisfaction with kinship care, their perceptions of their role in the child's life and in the life of the family providing a home for the child. We also examined the parents' views of their children's futures and their involvement in those futures.

Data Analysis

Analysis of Quantitative Data

Quantitative data were coded and entered into a machine-readable format. Data cleaning was performed, followed by verification of the accuracy of all data by two research assistants. Univariate analyses were conducted to examine the distribution of data for each variable. Multivariate analyses were then conducted to address the major research hypotheses.

Given the multi-wave data, we had planned two major longitudinal data analytical strategies: event history analysis (Allison, 1984) and hierarchical linear models (Bryk & Raudenbush, 1987; 1992). We intended to use event history analysis to assess stability of living arrangement over time, since this is a discrete binary measure (Allison, 1982; 1995). However, a combination of missing data and insufficient variance on this variable prevented us from conducting the planned analysis; rather we merely described the living arrangements of children that we knew left the caregivers' homes during the course of the study.

We use hierarchical linear models to assess changes in child behavioral functioning and caregiver stress over time; both of these variables are continuous measures. In these analyses we investigated the relationships between child behavioral functioning, caregiver stress, family functioning, social support, and family resources, controlling for a number of individual and family characteristics. A major advantage of hierarchical linear models over traditional group mean trend analysis is the ability to include individual differences in trends. Variants of hierarchical linear models have been developed under a variety of names including: random-effects models (Laird & Ware, 1982), multilevel models (Goldstein, 1995), random coefficient models (DeLeeuw & Kreft, 1986), mixed models (Longford, 1987). Recent advancement in analytical methods has enabled the hierarchical linear models to handle missing data (e.g., Hedeker & Gibbons, 1994; Gibbons & Hedeker, 1994). When assessing changes in child behavioral functioning, we treat caregiver stress, family functioning, social support, and family resources as time-varying covariates. When assessing changes in caregiver stress, we treat child behavioral functioning, family functioning, social support, and family resources as time-varying covariates.

Analysis of Qualitative Data

The qualitative components of the study help us broaden our search for individual and social protective factors, beyond those included in the quantitative analyses. Research assistants recorded the qualitative components of interviews with caregivers in their hand-written field notes. Research assistants transcribed the narrative caregiver responses, combining all interviews completed by each caregiver into a single primary document which was then entered into an Atlas-ti (Muhr, 1997) hermeneutic unit. Interviews with children and parents were audio taped and transcribed verbatim. The child and parent interview transcripts were entered into Atlas-ti hermeneutic units, with each transcript entered as a primary document.

A constant comparison method was used. We began with open coding, followed by axial coding, based upon a grounded theory approach (Strauss & Corbin, 1998). A number of members of the research team were involved in analysis of caregiver, child, and parent interview data. We resolved discrepancies in coding through discussion and consensus. This facilitated the constant comparisons and increased the likelihood of achieving trustworthiness and genuineness of the data and accuracy of our interpretations. We also incorporated member checks for the caregiver interviews, by providing opportunities for caregivers who participated in interviews to review and comment on preliminary findings at various stages in the data analysis: (1) review of preliminary results of the first 95 interviews with caregivers by members of a kinship support group, some of whom had participated in the interviews; (2) review of preliminary findings at a forum that included a number of caregivers who had participated in these interviews; and (3) review of preliminary findings of all four waves of data by the kinship caregivers advisory committee comprised mostly of caregivers who had participated in these interviews. Unfortunately we were not able to conduct member checks for the child interviews or parent interviews.