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# Predictors of Placement Moves Among Children With and Without Emotional and Behavioral Disorders

RICHARD P. BARTH, E. CHRISTOPHER LLOYD, REBECCA L. GREEN,  
SIGRID JAMES, LAUREL K. LESLIE, AND JOHN LANDSVERK

Children identified as having emotional and behavioral disorders (EBD) may have different out-of-home care placements than their peers without EBD. This study compared the factors influencing placement movements for 362 children with EBD and 363 children without EBD, using clinical *Child Behavior Checklist* (CBCL) scores at baseline data collection of the National Survey of Child and Adolescent Well-Being. The analyses explored potential case characteristics influencing the number of placements for children with a clinical CBCL score at baseline data collection. Poisson regression models were used to explain the number of placements experienced during the first 36 months of placement. Overall, children with a clinical-level CBCL score were 2.5 times as likely to experience four or more placements as their nonclinical peers. Findings indicated that the presence of depression and not residing with siblings predicted movement among children with EBD. Among children without EBD, only older age was strongly associated with placement moves. Although the direction of effects is equivocal, these results call for greater attention to children's experience of out-of-home placement and the lack of homogeneity among children who are placed outside their homes.

Children with emotional and behavioral disorders (EBD) may enter out-of-home care through Child Welfare Services agencies for several reasons. They may enter because maltreatment has contributed to the development of EBD, because having an EBD contributes to the likelihood of maltreatment (Kaplan & Sadock, 2003; LeVine & Sallee, 1999), or because the presence of an EBD results in the reclassification of children as maltreated so they can obtain child welfare-funded placements (Barth, Wildfire, & Green, in press). Regardless of the circumstances, many children entering out-of-home care have EBD

(Burns et al., 2004). These children may have different placement experiences than children without EBD or children who develop an EBD during the course of their child welfare experience.

## NATURE AND EXTENT OF THE PROBLEM

Millions of children have been, are, or will be placed out of home at some point in their childhood. At the end of Fiscal Year (FY) 2002, more than half a million children were in an out-of-home placement. Approximately 300,000 children entered and exited the system during FY 2002, with slightly more entering than exiting (Administration for Children and Families, 2002). Among children placed out of home, the problem of multiple placement moves is widespread, although findings regarding occurrence have been variable. A minimum of 25% to 50% of children experience more than two placements while in out-of-home care (Pardeck, 1984; Usher, Randolph, & Gogan, 1999; Webster, Barth, & Needell, 2000). For children who are placed out of home, estimates of the number of these children with EBD vary. The Child Welfare League of America (2005) reported that more than 80% of children in out-of-home care have an EBD or developmental problems. Reviewing 20 years of data, Pilowsky (1995) noted that children in out-of-home care have higher rates of EBD than (a) their chronological-age peers and (b) peers with similar backgrounds of maltreatment and deprivation. Other authors who reviewed the literature found that between approximately 35% and 85% of children in out-of-home care had an EBD (Leslie et al., 2000).

Although not an uncommon occurrence for children in out-of-home care, multiple placement moves, or placement instability, is almost universally considered disadvantageous to children (cf. Barber, 2003). In a recent discussion of the literature on the effects of placement changes on children, researchers reported that placement changes were associated with behavioral and mental health problems, delayed reunifications with the family of origin, and impaired the ability of the child to form strong, affective relationships with caretaking adults (Harden, 2004; James, Landsverk, Slyman, & Leslie, 2004; Newton, Litrownik, & Landsverk, 2000).

## CONTRIBUTORS TO PLACEMENT INSTABILITY FOUND IN PRIOR RESEARCH

The not uncommon assumption is that children with serious emotional and behavioral problems are most likely to experience placement moves (see, e.g., Barth, Courtney, Berrick, & Albert, 1994; Boyd & Remy, 1978). Sources of influence on placement change have been conceptualized as arising from characteristics of the child, the environment of which the child is a part, both, or an interaction of the two (Leathers, 2005). Largely overlooked have been two other likely sources of placement instability: administrative reasons for moving children (James, 2004) and the child's perspective on the likely outcomes of the placement (Gilligan, 2000). We will briefly review these two possibilities next; however, we should note that research on predictors of children's placement changes in foster care is limited.

### Child-Centered Influences

**Child Demographic Characteristics.** Prior research has shown that several demographic characteristics of children may predict placement problems. Among these are gender, age, and race. Several studies found that male gender was positively associated with the number of placement changes a child experienced (Palmer, 1996; Smith, Stormshak, Chamberlain, & Whaley, 2001; Webster et al., 2000). These same researchers found that older children, especially those over age 11, also were more likely to experience placement changes. Finally, in a study of California children in out-of-home care, Webster et al. (2000) reported that Caucasian children were more likely to experience placement changes than their peers of another race.

**Mental Disorders.** Children with EBD resulting from their history of maltreatment or other family dysfunction often enter the child welfare system (Harden, 2004) and become substantial users of mental health services (James, Landsverk, Slyman, & Leslie, 2004; Rubin et al., 2004). This implies that the placement moves are related to children's mental health and behavior problems, although use of mental health services could also be due to administrative reasons (e.g., as children get older, they are more likely to go into group-care facilities that have

mental health components). In the National Survey of Child and Adolescent Well-Being (NSCAW) sample at baseline, approximately 20% of the children ages 7 years and older who had been placed out of the home were assessed as depressed (U.S. Department of Health and Human Services [DHHS], 2005). Moreover, even in "normal" circumstances, mental health problems can be aggravated by the out-of-home placement experience itself (Harden, 2004; Newton et al., 2000).

**Special Needs.** Special needs, such as ones related to developmental delays or attention deficits, may result from the physical or psychological maltreatment experience. This issue is also a risk factor, thus making maltreatment more likely. Regardless of origin, children with special needs are overrepresented in the child welfare system (Rosenberg & Robinson, 2004).

**Expectations for the Future.** Some researchers have suggested that beliefs that children hold about the likelihood that they will eventually go home influence their likelihood of placement stability; thus, these researchers are basically arguing that children will be on their best behavior if they believe it will get them back home (Gilligan, 2000). Appraising the influence of a child's beliefs about his or her future on placement instability is difficult, however, due to a lack of research. Within the NSCAW sample, a sizable majority of children who were placed out of home expected to live with their parents again, even after 1 year or more in care; however, it is not clear what impact this finding might have on placement stability or other outcome indicators (Chapman, Wall, Barth, & the NSCAW Research Group, 2004). At least two out of five children in longer-term out-of-home care were not so optimistic. It seems likely this group is overrepresented among the children with clinical scores on the *Child Behavior Checklist* (CBCL; Achenbach, 1991) because children who display irritable or withdrawn behaviors are also at an elevated risk for a diagnosis of depression (American Psychiatric Association [APA], 2000) and thus are less likely to be hopeful about the future.

Few studies have looked at the potential effects of a child's expectations on placement change. In a large, qualitative study of children in the United Kingdom who had been placed out of home, Sinclair, Wilson, and Gibbs (2005) concluded that the best chance of a stable, positive "match" between a child and a foster family occurred when decision makers considered the desires of the child to be important.

### Environmental Influences

**Kinship Care Setting.** Research on the effect of the type of out-of-home placement (i.e., family foster care, kinship care, or residential care) has suggested that children placed into kinship care may enjoy greater placement stability than children placed into foster- or group-care settings. Although no national study has been conducted to show these patterns, they have been reported across time and states. Iglehart (1994) reported that

adolescents in kinship care in California had more stable placement experiences than children in foster care. Usher et al. (1999), using data from an Ohio county, also found that children whose first placement was with kin had more stable placement experiences than children whose first placement was not with kin. Testa's (2001) analysis of placement patterns in Illinois indicated the same pattern, although in this study the greater stability for kinship placements diminished over time. James (2004) reported similar findings with children who were at least 2 years old and in out-of-home care for at least 5 months. James indicated that children with fewer days in kinship care had a slightly lower risk of experiencing a behavior-related placement disruption. James did not, however, specifically examine the relationship between behavior problems and kinship care. This phenomenon was also clearly seen in a sample of younger children (ages 5 years and under) who had been placed out of home (Webster et al., 2000).

In some cases, a selection bias may account for some of the difference found between kinship and other out-of-home placements. The NSCAW baseline report found evidence of such selection: Children with fewer behavior problems were more likely to be placed into kinship care than into nonrelative care (U.S. DHHS, 2005). Other studies on out-of-home placements did not consider selection bias, however, making further conclusions difficult.

**Living With Siblings.** The role of siblings in placement dynamics has been gaining additional attention (e.g., Guo & Wells, 2003), and Shlonsky, Bellamy, Elkins, and Ashare (2005) argued that attention to the significance of kinship care in child welfare services has overshadowed the significance of sibling relationships for foster children. Recent research on placement with siblings has suggested that this type of placement may have some of the same salutary influences on placement disruptions that have been observed for kinship placements. Leathers (2005) interviewed 197 randomly selected young adolescents in long-term, traditional family foster care and reported that adolescents who were placed alone after a history of joint sibling placements were at a greater risk for placement disruption than adolescents who were placed with a consistent number of siblings while in foster care. This association was mediated by a weaker sense of integration and belonging in the foster home among youth who had been placed alone but had a history of previous placements with siblings. Behavior problems by a sibling accounted for more than one third (36%) of placement movements among the children in Leathers' study.

## Administrative Influences

More recent research has shown that placement moves are also generated by administrative actions unrelated to a child's problem behavior. Berrick, Barth, and Needell (1994) found that 30% of infants and toddlers who remained in nonkinship care in California for 6 years had four or more placements. Berrick

and her colleagues stated that it was unlikely that these placements were caused by behavior problems in such young children. More recently, using data from San Diego, James (2004) showed that 70% of placement moves were due to administrative or policy reasons, such as reunification of the child with a sibling, closure of a foster home or care facility, transfer to a lower level of care, or a lack of funding.

## RESEARCH HYPOTHESIS FOR THIS STUDY

We hypothesized that children with EBD who enter substitute care may change placements differently than their non-EBD peers. Testing this hypothesis involved a three-stage process. In the first stage, we reaffirmed the relationship between having an EBD at baseline and higher numbers of placement moves. In the second stage, we compared children within the EBD group who had a larger number of moves with children who had a lower number of moves; we also compared the EBD group with the non-EBD group. In the final stage, we completed separate analyses based on having an EBD to determine which factors could have particular significance to the placement movement of children with EBD and children without EBD.

## METHOD

### Sample

The NSCAW Child Protective Services (CPS) sample consists of a nationally representative group of 5,501 children whose circumstances were investigated by child welfare services between October 1999 and December 2000. The NSCAW sample was selected using a clustered, stratified sample design. Field interviewers were trained for 12 days in procedure and methodology. Children and their families were interviewed face-to-face, using some computer-assisted instruments, at baseline, 18 months, and 36 months. An additional mini-wave of data was collected via telephone at 12 months. Personnel from the Research Triangle Institute entered and organized the data (see Note). The subsample that became this study's sample was drawn from the NSCAW CPS sample. Children had to be in out-of-home care at baseline (i.e., placed following the close of the investigation), although we did not require a minimum length of time in care. Children also needed to be ages 7 to 14 years inclusive in out-of-home care at baseline. We excluded children younger than 7 years or children who did not speak English because not all instruments were available for them, and 14 was the upper age limit for recruitment into NSCAW. As a result of these criteria, the achieved sample size (unweighted) was 362 for children with EBD and 363 for children without EBD. Characteristics of the sample groups may be found in Table 1.

In addition, we assigned the children with EBD into either a *low-movement group* (had fewer than four placement changes) or a *high-movement group* (had four or more placement changes). These subsample sizes were 224 and 128, respectively.

TABLE I  
 Characteristics of Sample: Within-EBD Group Comparison by Number of Moves and  
 EBD/Non-EBD Group Comparison

Characteristic	EBD w/< 4 moves <sup>a</sup> (%)	EBD w/4+ moves <sup>b</sup> (%)	Total EBD <sup>c</sup> (%)	Total non-EBD <sup>d</sup> (%)
Out-of-home placement	32.1	18.3	50.4	49.6
Setting at baseline				
Foster care	33.8*	13.7	25.1***	24.2
Kin care	21.4	2.1	11.2	19.9
Residential	15.0	12.5	12.9	2.3
Other OOH	1.1	0.5	1.4	3.0
Age (at baseline)				
< 11 yrs.	49.2**	12.6	32.7	33.9
11+ yrs.	22.1	16.2	18.1	15.3
Gender				
Male	36.1	18.2	28.3*	20.0
Female	35.1	10.6	22.3	29.5
Race				
Minority	38.0	16.4	27.0	28.8
Nonminority	33.2	12.3	23.6	20.6
Child has special needs				
Yes	38.7	20.8	32.5 <sup>†</sup>	10.8
No	34.6	6.0	22.0	34.6
Criminal court appearance				
Yes	6.0	4.3	4.8***	0.2
No	60.8	29.0	43.1	51.8
Child has depression				
Yes	14.7	4.8	12.9	2.3
No	48.1	32.4	39.9	44.8
Child has psychological trauma				
Yes	15.5	12.5	14.5	9.0
No	46.1	25.9	37.6	38.9
Child expects reunification				
Yes	17.6	12.1	17.6	17.3
No/Unsure	47.4	22.9	43.0	22.2
Child lives with siblings				
Yes	17.2	5.8	12.2**	29.4
No	54.1	22.9	38.4	20.1
Number of moves				
M	1.85	6.25	3.45	2.72
Med.	2	6	3	2

Note. EBD = emotional and behavioral disorders.

<sup>a</sup>n = 224. <sup>b</sup>n = 128. <sup>c</sup>n = 362, includes 10 cases missing number of moves. <sup>d</sup>n = 363.

\*p < .10 but >.05. \*\*p < .05. \*\*\*p < .01. <sup>†</sup>p < .001.

## Measures

**Placement Moves.** In the NSCAW study, placement into out-of-home care was defined as any removal from home that lasted at least for one night. To be counted as a placement change, the child's official physical location of residence had to

have changed, and the caseworker needed to have acknowledged it by noting a change of placement in the case records. We obtained the number of placements from the Wave 4 (48-month) data.

As noted previously, for the initial analyses, we first divided the group of children with EBD into low-moving (less

than four) or high-moving (four or more) placements to assess the relationship between being in the EBD group and high-placement mobility. The decision to use four placements as a cut-off point was based on the observation that it is not unusual for a child to have two or three placements following the time of removal. For example, a child may be placed into shelter care, then temporary foster care (for up to 6 months), and finally into kinship care. This yields three moves based on administrative reasons unrelated to the child's behavior.

**Emotional or Behavioral Disorder.** The primary stratification variable was the CBCL, which is used to identify children with EBD. A score of 63 or greater on either the Internalizing or Externalizing subscales (a clinical score according to the CBCL guidelines for use) identifies a child as having an EBD. Children with a nonclinical score may demonstrate problem behavior, but this behavior is likely to lack sufficient severity, chronicity, breadth, or other characteristics sufficient to be counted as clinically problematic.

The CBCL measures behavior problems based on caregiver reports at baseline. It consists of an omnibus scale and numerous subscales that measure more narrow behavioral constructs. The Total Problem Behavior subscale had a reliability of .96 in the normative sample. The Externalizing subscale's reliability was .93, whereas the Internalizing subscale's reliability score varied by gender and age grouping, with a range of .89 to .96 in the normative sample. The CBCL does have two major limitations. First, it does not necessarily capture all potentially problematic behavior (Achenbach, 1997). Second, it is completed by a caregiver and may be more vulnerable to bias as a result—especially when used by substitute caregivers who may have an abbreviated observation period with a child.

Although no single measurement approach addresses all threats to validity, there was good justification for using the CBCL in this study. In the subsample from the NSCAW that we used, substitute caregivers (e.g., foster parents) completed the CBCL as long as they had the child in their care for at least 60 days. Although in some cases these caregivers might have been less knowledgeable regarding the child in question, they were likely to be free of substance abuse and mental illness that can also bias responding because they were foster families approved by CPS.

We used the results from the Internalizing and Externalizing subscales. Because behavior problems may be quite serious, even if identified as such only on one scale, we included a child if he or she scored in the clinical range on either of the two subscales rather than on the Total Problem Behavior subscale.

**Demographic Data.** Demographics consisted of three variables: age, race, and gender. Age was a continuous variable measured at baseline. Race was a six-option categorical variable also determined at baseline. During our analyses, we had to collapse age and race into binary categories to eliminate empty cells in the estimation process and allow for model con-

vergence. Initially, age consisted of four categories (< 2 years, 2–6 years, 7–10 years, 11+ years), and race consisted of White, Black, Hispanic, and Other. No change was made to gender.

**Special Needs.** We defined having a *special need* as having a developmental disability. This was a dichotomous variable that we determined by reviewing the child welfare worker's data at baseline.

**Court Appearance.** This refers to a court appearance by the child to answer a criminal charge because of negative behaviors. It identified children with more serious behavior problems, such as drug-related issues, use of weapons, and similar offenses. This is different from court appearances for case monitoring and similar types of administrative activities that commonly occur for child welfare cases. This was also a dichotomous variable that we determined by reviewing the child welfare worker's data at baseline.

**Psychological Trauma.** We assessed psychological trauma using an adaptation of the *Trauma Symptom Checklist for Children*—Post Traumatic Stress (PTS) subscale (Briere, 1996). This instrument screens for symptoms of post-traumatic stress disorder (PTSD) in children older than age 7 years through use of symptoms outlined in the third edition, revised, of the *Diagnostic and Statistical Manual of Mental Disorders (DSM-III-R)*; American Psychiatric Association, 1987). The outcome is a single dimension indicating the presence or absence of PTSD at baseline. Reliability of the PTS subscale was .87 in the normative sample. In a test of convergent validity, the PTS subscale was found to correlate at  $r = .75$  with the Internalizing subscale of the CBCL.

**Depression.** We assessed depression using the *Children's Depression Inventory* (Kovacs, 1992). This instrument assesses the presence or absence of depression at baseline in children older than 6 years. The resulting score has a cut-off to indicate clinical depression. Alphas in other research samples have varied from .71 to .87.

**Child Expectations of Reunification With Family.** At the time of removal from their homes, the children were asked if they believed they would eventually return to their place of residence (i.e., *normally home*). We grouped these responses into *yes* or *not yes* (no or unsure) categories to create a dichotomous variable that classified the children into one of two groups: a group of children who believed they were going home and a group who believed otherwise.

**Residence With Siblings.** This was also a dichotomous variable. At baseline, the children were assigned to one of two groups: a group of children who lived with their siblings in out-of-home care and a group of children who did not reside with siblings.

**Reason for Change in Placement.** We intended to include a variable to capture whether the placement was changed because of the child's needs or behaviors or due to some other reason (e.g., funding requirements, physical proximity to worker or service, closure of foster home) by using data from the collection instrument completed by the child welfare worker. Unfortunately, for the most part these data were missing and thus were unusable.

## Analyses

For our analysis, we used the Restricted Release data set and included Wave 4 data (number of placements) and baseline data (all independent variables). We conducted our analyses using SUDAAN version 9.0.1 (Research Triangle Institute, 2005), which includes features to correctly manage the complex survey sample data and weighting system that make NSCAW analyses nationally representative. We used list-wise deletion to manage missing data.

Initially, we used logistic regression to regress CBCL scores onto a dichotomous variable indicating the presence or absence of an EBD. Based on the research reviewed previously in this article, we selected independent variables to represent each source of influence. Two sets of cross-tabulations were completed. The first cross-tabulation compared high- and low-movement children with EBD on each independent variable. The second compared children with EBD and children without EBD. Finally, we used the previously identified independent variable to complete two Poisson regressions. The first model predicted the number of placement movements of children with EBD, and the identical second model predicted moves for children without EBD.

## RESULTS

Using only the CBCL scores, children with EBD were 2.5 times more likely than their peers without EBD to be in the high-movement group. We completed cross-tabulations and tested significance for (a) placement changes (i.e., left columns) together with both levels of each independent variable, as well as for (b) CBCL scores (i.e., right columns) together with both levels of each independent variable (see Table 1). Consequently, indicators of significance identify where an independent variable was different across either number of moves (left columns) or across clinical level behavior problems (right columns).

Among all of the children studied, about half had EBD (see Table 1). Slightly more than 18% of all children had more than four placement moves during the study period of 36 months. Children with EBD and children in the high-movement group differed from children in the low-movement group. On average, the low-movement group was younger ( $p < .05$ ) than their high-movement group peers. The low-movement group also had a mean and median of approximately two moves versus the high-movement groups' roughly six moves ( $p < .001$ ).

Characteristics of the children also differed between the groups. More non-EBD children were placed into kinship care than in the EBD group, but the reverse was true for residential care ( $p < .01$ ). Most markedly, children with special needs ( $p < .001$ ) or a criminal court appearance ( $p < .01$ ) were more likely to be in the EBD group, whereas children who were living with siblings ( $p < .05$ ) were less likely to be in the EBD group than their peers who were not living with siblings or who were only children.

We now turn our attention to the results of our analyses pertaining to the children with EBD. In these analyses, the unweighted sample size was 164. The drop in sample size was due to the use of list-wise deletion by the estimation algorithm. Tests for differences among several randomly chosen variables found no meaningful differences between retained cases and deleted cases.

Table 2 shows the results of the Poisson regression modeling in explaining placement moves among the EBD group members. Poisson regression is commonly used when the dependent variable is a count (e.g., events occurring in a time period). Results produce an incidence density ratio (IDR), confidence intervals, and significance tests for each independent variable. The IDR is defined as the number of occurrences per time period for each one-unit increase in the dependent variable. If the confidence interval excludes one, then the result is significant and can be interpreted as a greater chance of occurring. For example, a child with depression has a 32% greater chance of experiencing a placement change than a nondepressed child.

Two variables were significant in predicting placement movement among the clinical group: being depressed and not living with siblings during placement. Three other variables approached significance in testing ( $p < .10$ ): uncertainty about being reunified, having special needs, and being 11 years or older. These variables were significant ( $p < .05$ ) in prior model iterations during development, and the ultimate absence of significance may be due to the decreased sample size induced by the list-wise deletion.

For the nonclinical group, we identified very different contributors to placement moves (see Table 3). Older age proved to be the strongest predictor of placement movements, with children older than 11 years significantly more likely ( $p < .01$ ) to have more placements. By contrast, among children in the clinical group, age was not a significant predictor of placement change. Being male contributed to being less likely ( $p < .05$ ) to experience placement change, although boys generally were underrepresented in the nonclinical group. Also notable were the presence of psychological trauma at baseline ( $p < .06$ ) and a juvenile or criminal court appearance ( $p < .08$ ).

As a check to determine if duration in care was influencing the regression results, we repeated the regressions. One model excluded all children who had been in out-of-home care less than 90 days, and the second model excluded all children who had been in out-of-home care less than 180 days. The re-

TABLE 2  
Results of Regression Modeling Predicting Placement Moves Among  
Children in Foster Care with Emotional and Behavioral Problems

Characteristic	IDR	Upper CI	Lower CI
Age (< 11 yrs. = reference) 11+ yrs.	1.26	0.93	1.70
Race (nonminority = reference) Minority	1.01	0.80	1.27
Gender (female = reference) Male	0.95	0.72	1.25
First placement (kinship = reference) Other out-of-home	0.91	0.66	1.67
Special needs (no = reference) Yes	1.27	0.90	1.81
Criminal court appearance (no = reference) Yes	1.00	0.43	1.14
Child has depression (no = reference) Yes	1.32*	1.01	1.73
Child has psychological trauma (no = reference) Yes	0.85	0.68	1.07
Child expects reunification (yes = reference) No/Unsure	1.18	0.95	1.45
Child lives w/siblings (yes = reference) No	1.47**	1.10	1.95

Note. IDR = incidence density ratio; CI = confidence interval.  
\* $p < .10$ . \*\* $p < .05$ .

sults showed no differences among the patterns of significance, although the beta and IDR estimates did vary slightly from test to test due to the variations among the samples.

## DISCUSSION

By using a large, national probability sample, controlling for behavioral and emotional disorders, and including independent variables suggested by previous research, these analyses offer new evidence about the dynamics of placement moves among children who are placed out of home. Two clear-cut influences on placement movement were residing in out-of-home care without siblings and depression, the latter perhaps based on the perception of a low likelihood of reunification with other family members. The finding that children not residing with their siblings are more likely to experience more placement movements generally concurs with the results of the Leathers' (2005) study, which indicated that children placed with their siblings have more stable placements, even when the child had EBD.

Alternatively, the explanation for the finding that children who are not living with their siblings have less placement sta-

bility could be administrative rather than behavioral; that is, children who are separated from siblings may be more likely to experience administrative moves to reunite them with their siblings (James, 2004). An additional explanation may be selection bias. Children who are not placed with siblings may be in that situation due to a perceived negative influence on their siblings (e.g., molesting them). As a result, more children who are disruptive are placed alone rather than with sibling groups. In the absence of reasons for a placement change, however, the most likely reason for this finding is that sibling groups are a stabilizing influence.

Depression and, to a somewhat lesser extent, demoralization about reunification is a not unexpected cause of placement change. As both the fourth edition, text revision, of the *DSM (DSM-IV-TR; APA, 2000)* and Kaplan and Sadock (2003) have indicated, children with depression commonly express feelings in the form of irritability, anger, and hostility. Given this population's already problematic behaviors, the child's expression of depression may be a disruptive experience for both child and caretaker. Caretakers might readily find such behavior difficult to manage in the family foster-care environment and have difficulty obtaining high-quality mental health care.

TABLE 3  
Results of Regression Modeling Predicting Placement Moves Among Children  
in Foster Care Without Emotional and Behavioral Problems

Variable	IDR	Upper CI	Lower CI
Age (< 11 yrs. = reference) 11+ yrs.	1.71***	1.20	2.44
Race (nonminority = reference) Minority	0.88	0.62	1.23
Gender (female = reference) Male	0.68**	0.50	0.93
First placement (kinship = reference) Other out-of-home	0.79	0.55	1.14
Special needs (no = reference) Yes	1.32	0.91	1.93
Criminal court appearance (no = reference) Yes	1.69	0.98	2.89
Child has depression (no = reference) Yes	1.13	0.75	1.70
Child has psychological trauma (no = reference) Yes	1.53	0.99	2.37
Child expects reunification (yes = reference) No/unsure	1.10	0.89	1.37
Child lives w/siblings (yes = reference) No	1.00	0.76	1.32

Note. IDR = incidence density ratio; CI = confidence interval.  
\*\* $p < .05$ . \*\*\* $p < .01$ .

The finding of no relationship between placement in kinship care and placement stability is unexpected. There is prior evidence that less troubled children come to reside in kinship care (Berrick et al., 1994; U.S. DHHS, 2005), which in part accounts for the reduced rate of placement moves among this subgroup. In our study sample, though, the stability of kinship care did not appear to have an influence.

Children without EBD demonstrated marked differences from their peers with EBD. In the non-EBD group, boys were less likely than girls to experience placement change, whereas older children were more likely than younger children to experience such change. This finding could be partially explained by properties of the CBCL (e.g., if the CBCL is more sensitive to prototypically male negative behaviors, most problematic males would have been screened into the EBD group). Alternatively, the CBCL might be less sensitive to prototypically female negative behaviors that may nonetheless cause problems sufficient to generate placement movement.

In addition, children age 11 years or older appear strongly at risk for placement movement. This finding is in keeping with the prior research on placement movements that we discussed

previously. Older children are certainly more capable of more undesirable behaviors. It may also be that substitute caregivers are less tolerant of any negative behavior on the part of children who are placed with them.

### Limitations

The study has several limitations. Perhaps the most significant is the decision to model only part of a larger phenomenon. The models only accounted for children who had an EBD at baseline, as opposed to children who developed an EBD during their out-of-home experience (or those few children who ceased to be classified as having an EBD during placement). As a result, the capacity of the models to account for placement changes is limited. A second concern is the lack of information about reason for placement. Data on reasons for placement changes did not prove to be usable. Less than 10% of individual placement movements had a reason listed, and many of the reasons listed were not informative (e.g., "other"). This deficiency prevents us from developing a more complete understanding of the phenomena.

A pair of remaining concerns about the model could be because of the positive correlation of time in care and number of placement moves and because placement patterns may change over time (James, Landsverk, & Slymen, 2004; Testa, 2001). Only the latter is a genuine reason for caution, as the statistical procedure does account for the number of opportunities for the dependent phenomena to occur in each case; hence, the estimates account for any correlation between time and number of placement moves.

## Conclusions

Children with EBD who are placed out of home appear to be different from children without EBD who are placed out of home. In this study, major indicators of placement movement were placement in out-of-home care without other siblings (i.e., placed away from sibling group or being an only child) and a diagnosis of a clinical level of depression. Both of these findings have substantial policy and clinical implications for child welfare leaders and practitioners. At the policy level, substitute caregivers may require additional training to manage effectively the symptoms of children's EBD, such as depression. Policies that maintain the integrity of sibling placements should also be enacted, when feasible. When placement with siblings is not possible, efforts that recognize the importance of family relationships and that monitor and address a sense of demoralization about reunification with family members should be made.

Additional research is needed to identify other influences that may affect placement movement for children with EBD and to develop effective interventions. The findings from this study offer ideas for strengthening such efforts and indicate that better understanding of placement moves will be facilitated by distinguishing subgroups of children in out-of-home arrangements.

## About the Authors

**RICHARD P. BARTH**, PhD, MSW, is a professor in and dean of the School of Social Work at the University of Maryland. His research addresses developmental outcomes for children who are maltreated and the services they receive at home, in foster care, in group care, and via adoption. He has a special interest in the costs and benefits of children's services. **E. CHRISTOPHER LLOYD**, MA, LCSW, is a doctoral candidate in the School of Social Work at the University of North Carolina. He is interested in the development of children involved in child welfare, child welfare services, and statistics and research methodology. **REBECCA L. GREEN**, MSW, is a senior research associate at the Jordan Institute for Families, School of Social Work, University of North Carolina. Her interests are in outcomes for children who are maltreated, foster-care caseload dynamics, and the evaluation of child welfare service demonstration projects. **SIGRID JAMES**, PhD, MSW, is an associate professor in the Department of Social Work and Social Ecology at Loma Linda University and a research scientist at the Child and Adolescent Services Research Center in San Diego, California. Her research focuses on the mental health needs of and services for children and youth in out-of-home care and effective intervention approaches for this population. **LAUREL K.**

**LESLIE**, MD, is an associate research scientist at the Child and Adolescent Services Research Center; her academic appointments include assistant clinical professor of pediatrics at the University of California–San Diego and adjunct research professor at San Diego State University School of Public Health. Her research interests focus on the developmental and mental health needs of underserved children, the impact of policy initiatives on access to care for underserved children, and collaborative models of care. **JOHN LANDSVERK**, PhD, is director of the Child and Adolescent Services Research Center at Children's Hospital–San Diego and a senior scholar at the George Warren Brown School of Social Work, Washington University, in St. Louis. His current interests are the integration of evidence-based interventions into child welfare and mental health service systems. Address: Richard P. Barth, School of Social Work, 525 W. Redwood St., Baltimore, MD 21201; e-mail: rbarth@sss.umaryland.edu

## Note

More technical information and initial reports may be found at [http://www.acf.hhs.gov/programs/opre/abuse\\_neglect/nscaw/index.html](http://www.acf.hhs.gov/programs/opre/abuse_neglect/nscaw/index.html).

## Authors' Notes

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