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# Assessing Risk of Placement Instability to Aid Foster Care Placement Decision Making

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#### **ABSTRACT**

Placement stability is of critical importance to the well-being of children in foster care and has an impact on other key outcomes. Placement decision-making that matches children with placement resources is often cited as a practice that impacts placement stability, but little research exists to inform this practice. The focus of this research is on a child assessment tool that was developed to determine the appropriate level of care, which serves as one component of a web-based matching system that pulls together child and placement information used to inform the placement decision. The research examines the relationship between the child assessment subscale domains and placement stability for first and subsequent placement decisions and evaluates the stability of placements made in and outside of the indicated level of care.

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Foster care; placement; decision support; child assessment; matching; placement stability

Child welfare agencies continually strive to provide safe and stable placements in the least restrictive setting for children in foster care. An important part of achieving this ideal is to make placement decisions that take into account both a child's needs and the capacity of an available placement resource to address those needs. Making placement decisions is an everyday occurrence in child welfare agencies; however, compared to decision-making related to removal, or reunification, much less is known about decision-making related to selecting placements for children once in foster care (Chor, McClelland, Weiner, Jordan, & Lyons, 2013).

In a national survey undertaken to understand what states were doing to reduce the foster home disruptions, 31 of the 33 (94%) of the states responding to the survey identified placement matching as one of the nine approaches being utilized to improve placement stability practice (Blakey et al., 2012). This descriptive study also brought to light that only four of 33 states indicated the use of an assessment tool to assess child needs for placement decisions. The survey also identified a need for examining procedures for level of care assignment and standardization of the matching process using electronic databases to assist with making the best foster parent match. In addressing this need the focus of the research reported here is on a child assessment

tool developed by a private child welfare agency in Kansas that was used to determine the appropriate level of care. It serves as one component of a web-based matching system that uses information from the agency's electronic databases to inform the placement decision.

# The importance of placement stability

Achieving stable and appropriate placement settings for children in foster care is a major objective for child welfare services established by the Children's Bureau of the U.S. Department of Health and Human Services, Administration of Children and Families. States are under increasing pressure to improve the stability of children in foster care and are required to submit a program improvement plan (PIP) for not meeting its goals of no more than two moves during a foster care episode (U.S. Department of Health and Human Services [US DHHS], Administration for Children and Families, 2014). Placement stability is monitored nationally through the Child and Family Services Review (CFSR) and is reported by states in their Adoption and Foster Care Analysis and Reporting System (AFCARS) data file submitted every 6 months (US DHHS Children's Bureau, 2014). The Child Welfare Outcomes 2008-2011 Report to Congress concluded that achieving placement stability (two or fewer placement settings) for children in care for more than 12 months is an area of difficulty for many states, with performance remaining stagnant between 2008-2011 (US DHHS Children's Bureau, 2013).

The negative impact of placement instability on children in foster care is well supported in the child welfare research literature. Not only are children with emotional and behavioral problems upon entry of foster care at greater risk of placement instability, but instability while in foster care exacerbates and increases these problems (Harden 2004; Newton, Litrownik, & Landsverk, 2000; Rutter & Sroufe, 2000). In their study, Rubin, O'Reilly, Luan, and Localio (2007) controlled for children's behavioral problems at foster care entry and found that children with instability were at an estimated 36% to 63% greater risk of increased behavioral problems compared to children achieving stability. Placement instability may compound other problems such as aggression, low self-concept, and coping behavioral problems (Harden, 2004; Newton, Litrownik, & Landsverk, 2000).

Other consequences or at least associations with instability have been noted in other research. Instability was significantly related to academic delays in one study (Zima, Bussing, Yang, Belin, & Forness, 2000). Placement changes can require changing schools and result in decreased school performance, dropout, and delinquent behaviors for males (Rumberger & Larson, 1998; Ryan & Testa, 2004). Increased placement moves result in greater use of emergency medical care, thus increasing the likelihood of less coordinated medical care (Rubin et al., 2004). With more placement disruptions comes a higher risk of

runaway behavior, time in residential facilities, and contact with other services sectors such as juvenile justice (Harden, 2004; James, 2004; James, Landsverk, & Slymen, 2004; Jonson-Reid & Barth, 2000).

Not only are well-being outcomes compromised by instability but also timely reunification is less likely for children with externalizing behavior and behavioral/emotional problems, which are intensified by placement instability (Landsverk, Davis, Ganger, Newton, & Johnson, 1996). In addition, the risk of reabuse and permanency failures with re-entry into foster care is greater the more placement instability children experienced while in foster care (Courtney, 1995; Fisher, Kim, & Pears, 2009; Fuller, 2005).

In addition to the impact that instability has on children, increased financial cost is another consideration. Cost savings of placement stability can be realized in a number of ways, including quicker permanency, reduced reentry, and reduced staff time required in making placement changes (Pecora et al., 2007). While no published cost analysis was found in the search for this current study, the staffing cost of placement disruptions was often mentioned as a consequence of placement instability (Chamberlain et al., 2006). One analysis using focus groups in San Diego, California, estimated an average of 25 hours of casework and support staff time that was involved in such tasks as submitting court reports, securing a placement resource, and related documentation (Price, 2005, unpublished data). The agency that developed the placement matching system discussed in this research estimated through an internal cost analysis that a placement move in 2013 cost \$1,619 on average due to additional staff time required. Ward and Holmes (2008) reported the cost of placing children rose the more frequently they moved, with children needing their fourth, fifth, and sixth placement taking three to four times longer than their first few placements. Another aspect of the cost of instability is the toll on foster parents including burnout stress (Boyd & Remy, 1978) and placement disruptions, which can impact their decision to stop fostering altogether (Crum, 2010; James, 2004). Costs associated with strategies to increase placement stability should be considered in light of these potential savings (Chamberlain et al., 2011).

# **Placement decision-making**

Placement matching is often recognized as a part of the solution for improving placement stability (Blakey et al., 2012; National Resource Center for Permanency and Family Connections, n.d.; Pecora et al., 2007; Webster, Barth & Needell, 2000). Despite the apparent understanding of placement matching as an important practice leading to placement stability, very little empirical literature exists on the effect of placement matching decision-making. Perhaps one such reason for this lack of research is the difficulty of disentangling the complex set of factors that can affect placement stability as well as greater

clarity of why placements end. James (2004) organized placement end reasons into four major categories: system or policy factors, foster family factors, biological family factors, and behavior related factors. The author further suggests that understanding reasons for changes in foster care placements could be helpful in developing strategies that promote placement stability.

The aim of this study was to examine the ability of an agency-developed assessment tool to assess the likelihood of a child's potential risk for placement instability. When children are assessed to be at high risk of instability, they can be targeted for additional services to ameliorate risks such as higher levels of care or the use of other evidence-based practices intended to reduce that risk (Chamberlain et al., 2006; Hurlburt, Chamberlain, DeGarmo, Zhang, & Price, 2010). Fisher et al. (2009) stated, "From an early intervention perspective, the sooner that children are identified to have risk of placement instability and are provided with a means to intervene, the better the chances are for improving outcomes" (p. 541). Creating stability is especially important early in the life of a foster care episode, with risk being the highest in the first 100 days (James, 2004; Webster et al., 2000; Wulczyn, Kogan, & Harden, 2003). Given the importance of early stabilization and the different quality and quantity of data available, first and subsequent placement decisions were analyzed separately.

#### Methods

## Setting

TFI Family Services, Inc. is a private not-for-profit agency that served as the lead foster care contractor in two sub-state regions under contact with Kansas. In this privatized environment, the agency was responsible for the full array of child welfare services once children entered state custody and were removed from the home. As such, the agency was responsible for making placement decisions matching the child's needs with available placement resources.

# Web-based placement matching system

A web-based decision support tool titled "Every Child a Priority" (ECAP) is a placement matching system developed by TFI Family Services to assist staff in making the best possible placement decisions for children in their care. The system was fully implemented on August 1, 2010, and used for placement decision-making over a 20-month study period ending April 1, 2012. The ECAP system provided placement match options based on an algorithm that used information from a child assessment and information on available placement resources. Such a method for informing out-of-home placement decisions has been called a "decision support algorithm model" (Chor et al.,



2013, p. 872). Lyons (2004) described such models as "a logical set of criteria that describe the clinical characteristics of children and families that would be best served by the available decision options relevant to the algorithm" (p. 158).

The child assessment tool, and focus of this research, was a consensus-based tool developed by TFI Family Services titled the appropriate placement level indicator (APLI). The APLI had both scored and non-scored items. Scored items were assigned a point value which when totaled provided an overall APLI score that was used to determine a level of care as per agency protocol to guide the placement decision. For example, if a child was assessed as a "chronic runner", defined as having "3 or more in the last 150 days", a point value of 7 is added to the APLI total. The total APLI score is the cumulative points of each of the domains plus points from number of prior moves, child's age, gender, and reason for placement need.

Non-scored items were strictly used for matching children to placement resource (foster parent) preferences but did not contribute to the overall score. For example, no points were assigned for medically fragile children, but placement providers could have expressed willingness to care for medically fragile children.

The algorithm that produced the placement recommendations in ECAP is proprietary; however, it used child information from the APLI, and information on potential placement providers (i.e., foster homes). Information on the placement providers included characteristics and preferences given in their Provider Profile, past performance for stable placements (tier score) of each potential placement provider, and the capabilities (e.g., training, license capacity) of the provider. Placement with siblings, proximity to the child's home (biological parents), and permanency goal were also parts of the algorithm that produced a list of potential placement options for the staff to consider.

A central care management staff who made the placement decision was able to consider the best match placement options provided by ECAP. Staff could also utilize various unique features of the web-based placement matching system to easily access more detailed information on the child and potential placement resources enabling them to take into account more unique needs of the child. For example, if a child displayed aggressiveness or victimization of younger children, the staff person making the placement could easily see if that home had other children residing in the home, either biological or other children placed in foster care which would inform that placement decision. ECAP also has various features to manage the placement process designed to save staff time and facilitate best practices in placement decision-making such as the ability to record their attempts to contact placement providers and their responses, and access more detailed child information stored in the agency database.



#### **APLI** overview

The original APLI1 was comprised of 73 items, 37 of which were used for scoring. A total score was calculated from the APLI items, which provided an indicated level of care. Scores ranged from 0-39 with a mean of 9.08. Mean scores for each level of care (from lowest to highest) were: family (foster care), 5.21; specialized, 18.90; treatment. 24.85; and intensive, 35.67. APLI scores and a resulting indicated level of care were provided to placement personnel who made the placement decision. Any exceptions for placing children outside of the level of care indicated had to be approved by a supervisor in the placement unit.

The items consisted primarily of questions regarding the presence of some condition or event (e.g., has the youth been documented to have started fires), plus the child's age and type of referral (i.e., emergency, disruption and other). Which items to include in the scoring and their weights were determined thru a consensus process involving clinical expertise and judgment. Higher scores were considered to have a higher risk of placement instability.

A sub-set of the scored items and the other 36 non-scored items were used for matching to the provider profile as well as providing information on other specific care needs of the child. Most of the items on the APLI were completed by the caseworker or care management worker based on referral information using an online form. Some of the information came directly from the agency database (e.g., age, placement history) for children already in care to save time in entering information.

The APLI was completed on every child entering foster care for the first time with the agency and updated whenever a subsequent placement was needed. Updating the APLI was not required if one had been completed within the prior 45 days and there were no changes. Also, completing an APLI was not required when a relative placement was available, a specialized placement resource was needed (i.e., substance abuse treatment, detention, shelter), or the child was being placed in a psychiatric residential treatment facility (PRTF) or state hospital, which had separate state-required screening criteria.

The APLI was comprised of six domains (Table 1). Scoring was based on items within these domains and the child's current age. For placement decisions subsequent to the first placement, the number of prior placement moves within the child's removal episode regardless of the reason for the move was also used. Scoring calculations were automated within the ECAP software and, thus, point values for individual items and scoring logic were blind to the staff person completing the APLI.

A level of care protocol was established with four levels conceptualized as a continuum of service intensity for placement settings and higher cost rates. APLI score ranges were established for assigning a child to a level of care. Score ranges for each level of care protocol were developed through an internal



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Table 1. Domains	of the Annroi	oriate Placement	Level Indicator	· (API I)

Domains	Description		
Runaway	Child's current and historical runaway behaviors		
Physical Health	Child's documented physical health concerns or disabilities requiring treatment		
Mental Health	Child has come to the attention of mental health professionals or receiving behavioral/therapeutic services		
Aggression/Destructive Behavior	Current and historical info about child's physical and sexual aggression (e.g., fire-starting, theft, sexual perpetrator, property destruction, and assaults on peers or adults)		
Chemical Dependency	Evidence of current and historical information about child's use of substances and treatment		
School/Pre-School/Independent Living	Attendance/truancy information, special alternative school/day care needs		

agency consensus building process utilizing accumulated practice wisdom of what children needed and budget considerations associated with the cost of each level of care. For example, if the total APLI score was in the range of 0-15family foster care (the lowest level of care) was indicated. A financial analysis of the cost of the services mix was undertaken and contrasted with the available budget resources. The levels of care from least to most intensive were: family, specialized, treatment, and intensive:

- Family level of care was a typical foster home or in some cases independent living.
- Specialized care required more behavior management skills by the provider and may involve a requirement for fewer children placed in the
- *Treatment* level of care involved a higher level of behavior management skills by the foster home or small group care providers and was coupled with mental health services.
- Intensive level of care was reserved for children with severe emotional and behavioral needs that required therapeutic foster care as defined by agency guidelines or in some cases a higher level of group care.

Decisions for placement in psychiatric residential treatment facilities (PRTF) were based on other state defined criterial and screening protocols.

Previous research found the APLI to have good inter-rater reliability (Moore, McDonald, & Cronbaugh, 2013). Cronbach's alpha was .945 for first placements and .909 for subsequent placements. Also, 95% of first placements and 75% of subsequent placements resulted in agreement on the level of care.

# Research database

The data file created for this research was comprised of 2,328 placement settings derived from the agency's administrative database for the study period August 1, 2010, to April 1, 2012. These were non-relative placement settings that had a start date during this time period and that used the APLI for the

placement decision. The sample was about evenly split between males (51%) and females (49%) and predominately (78%) white. They ranged in age from infants to children age 17 years with the average age just younger than age 8 years. Time in placement ranged from 1 to 953 days with the average of 115 days, median 65 days.

To test the predictive validity of the tool, the file was further reduced to 2,056 placement setting records (1,484 unique children) where the placement was made according to the indicated level of care from the APLI. Of these, 46% (n = 941) were first placements and 54% (n = 1,115) were subsequent placements. Due to differences in the amount and reliability of information available at referral (first placement) and after the child had been with the agency for some time (subsequent placement), data for these two types of placements were analyzed separately.

Placement setting records were created from administrative data using rules consistent with how the state counted placement settings as reported in their federal AFCARS file (U.S. DHHS Children's Bureau, 2014). In general, placement settings consisted of one or more placement records where the child stayed with the same caregiver as indicated by a Provider ID assigned to each caregiver regardless of the sponsoring agency overseeing the placement. To create a placement setting record, placement records in the administrative database for temporary living condition (e.g., respite), runaway, and hospitalizations were ignored if the child returned to the same caregiver as denoted by the same Provider ID. Also, changes in placement level (e.g., family foster care to treatment) or in placement type (e.g., family foster care to preadoptive) with the same provider identification were considered the same placement setting. When multiple placement records were used to create a single continuous placement setting record, the start date of the first record was used for a provider identification and the end date from the last record with the same provider.

With each placement setting in the research data file, data were integrated from the associated APLI used to make the placement decision. Other data pulled into the research dataset included child demographic data and data on the child's removal episode (e.g., removal date, discharge date, and discharge reason). The removal episode was defined using rules consistent with the state's federal AFCARS file.

# Dependent variable

The outcome criterion used to assess the predictive validity of the APLI was placement stability, defined as a placement setting that lasted 180 days or resulted in permanency within 180 days. If a child was placed in the level of care indicated by the APLI, it was anticipated that the placement would more likely be a stable placement. All placement changes were counted the same regardless of the placement end reason, consistent with a recent study on placement disruption (Leathers, 2006). Open placement settings that were less than 180 days were excluded from the analysis.

The 180-day criterion for stability was a standard used by TFI Family Services and was consistent with the federal goal of no more than two placement moves for children in care less than 12 months. While there is no consensus in the research literature on what constitutes a stable placement, the first 6 months (180 days) after entering foster care is considered a critical period where most moves occur (Wulczyn et al., 2003).

# **Predictor variables**

APLI total and domain scores were examined to determine their relationship to placement stability. Domain scores were found to have little variability and were subsequently analyzed as dichotomous variables indicating whether any of the individual items under the subscale applied to the child.

# **Analyses**

Initial analyses sought to determine if placements were consistent with the level of care prescribed by the APLI scores and, if not, how this was related to placement stability. Simple descriptive and bivariate (crosstabs) statistics were used to conduct these analyses. The relationship of the APLI total and subscale scores to placement stability was examined by t tests of mean differences in disrupted and stable placements and cross tabulations, including odds ratios.

#### Results

In 88% of the placements where the APLI score was used to direct the placement decision (n = 2,328), the child placement was consistent with the APLI score. Furthermore, placements made at the same level of care indicated by the APLI were found to be significantly more stable. Of placements made at the same level prescribed by the APLI score, 40% were stable versus 28% for those placed at higher levels and 22% of those placed at lower levels  $(X^2 = 34.01, df = 2, p = .000).$ 

Average overall APLI scores were also significantly higher for cases that moved compared to those that were stable. For "First" placements, those that moved had average APLI scores of 5.9, compared to 3.9 for those that were stable (t = 5.16, df = 913, p = .000). Differences were more dramatic for "Subsequent" placements, with those that moved having average scores of 14.4, compared to 9.6 for those that were stable (t = 10.62, df = 1113, p = .000).

Additional analyses looked at the relationships between the dichotomized subscale domain variables and placement stability. For first placements, four of

Table 2. Aggression, mental health, runaway, and	I school domains—"First" placement Appropriate
Placement Level Indicators (APLIs).	

Scale	Problem Indicated	Moved					
		No	Yes	Total	$\chi^2$	Р	OR
Aggression	No	302 (42.5%)	409 (57.5%	711 (100.0%)	13.86	0.000	1.84
	Yes	66 (28.7%)	164 (71.3%)	230 (100.0%)			
	Total	368 (39.1%)	573 (60.9%)	941 (100.0%)			
Mental Health	No	348 (41.7%)	487 (58.3%)	835 (100.0%)	20.55	0.000	3.07
	Yes	20 (18.9%)	86 (81.1%)	106 (100.0%)			
	Total	368 (39.1%)	573 (60.9%)	941 (100.0%)			
Runaway	No	352 (40.3%)	522 (59.7%)	874 (100.0%)	7.02	0.008	2.15
•	Yes	16 (23.9)	51 (76.1%)	67 (100.0%)			
	Total	368 (39.1%)	573 (60.9%)	941 (100.0%)			
School	No	310 (42.7%)	416 (57.3%)	726 (100.0%)	17.22	0.000	2.02
	Yes	58 (27.0%)	157 (73.0%)	215 (100.0%)			
	Total	368 (39.1%)	573 (60.9%)	941 (100.0%)			

the domains were found to be significantly related to placement moves, including aggression, mental health, runaway, and school (Table 2). Move rates for these problem areas were 12% to 20% higher when the problem behavior was present compared to when it was not. The corresponding odds ratios indicate that children exhibiting these problem behaviors were two to three times as likely to experience moves. The chemical, physical, and gender domains were not significantly related to moves.

The same four domains were also found to be significantly related to placement stability for subsequent placements (Table 3). In addition, the presence of "chemical" problem behaviors also resulted in significantly higher move rates. The corresponding odds ratios indicate that children exhibiting these problem behaviors were two to three times as likely to experience moves. Physical health and gender domains were not significantly associated with subsequent placement moves.

Table 3. Aggression, chemical, mental health, runaway, and school domains—"Subsequent" placement Appropriate Placement Level Indicators (APLIs).

	Problem Indicated	Moved					
Scale		No	Yes	Total	$\chi^2$	Р	OR
Aggression	No	235 (54.0%)	200 (46.0%)	435 (100.0%)	62.48	0.000	2.7
	Yes	206 (30.3%)	474 (69.7%)	680 (100.0%)			
	Total	441 (39.6%)	674 (60.4%)	1115 (100.0)			
Chemical Depend.	No	410 (42.0%)	567 (58.0%)	977 (100.0%)	19.24	0.000	2.5
	Yes	31 (22.5%)	107 (77.5%)	138 (100.0%)			
	Total	441 (39.6%)	674 (60.4%)	1115 (100.0)			
Mental Health	No	299 (48.4%)	319 (51.6%)	618 (100.0%)	45.24	0.000	2.34
	Yes	142 (28.6%)	355 (71.4%)	497 (100.0)			
	Total	441 (39.6%)	674 (60.4%)	1115 (100.0)			
Runaway	No	403 (43.2%)	530 (56.8%)	933 (100.0%)	31.72	0.000	2.88
	Yes	38 (20.9%)	144 (79.1%)	182 (100.0)			
	Total	441 (39.6%)	674 (60.4%)	1115 (100.0)			
School	No	285 (47.0%)	322 (53.0%)	607 (100.0%)	30.52	0.000	2
	Yes	156 (30.7%)	352 (69.3%)	508 (100.0%)			
	Total	441 (39.6%)	674 (60.4%)	1115 (100.0)			

#### **Conclusions**

This study showed that the appropriate placement level indicator (APLI) was predictive of placement instability, and when children in foster care were placed in accordance with the level of care protocol determined by the APLI score, placement stability was better than when children were placed in either higher or lower levels of care. Levels of care were distinguished by types and intensity of services provided and higher costs. The APLI and the corresponding placement level of care protocol is one component of every child a priority (ECAP), a decision support system for matching children in foster care with available placement resources.

Children frequently come into foster care in situations where quick decisions are required. This study confirmed that much less is known about the needs and risk factors for children that are entering foster care for the first time as demonstrated by the lower APLI scores. Due to differences in the available child information between first time referrals for placement, versus subsequent placements of children already in custody, this study examined these two groups separately in order to understand the ability of the APLI to predict stability for each group. Once again, the study revealed that the APLI is predictive of placement stability at both decision points.

The APLI domains were comprised of items that were risk factors associated with placement instability and the findings were largely consistent with other research on placement stability. Children with behavioral and emotional problems, especially externalizing behaviors (e.g., aggressiveness toward others, disruptive or destructive behavior) assessed using the APLI were at higher risk for placement instability as supported in numerous studies (Harden, 2004; Newton et al., 2000; Rubin et al., 2007; Rutter and Sroufe, 2000). A preponderance of the APLI items focus on these behavioral indicators. School performance, delinquent behavior, and runaway behavior were found to be predictive of stability, which was likewise supported in other studies (Harden, 2004; James, 2004; Rumberger & Larson, 1998; Ryan & Testa, 2004; Zima et al., 2000). The items in the mental health domain, that measure whether a child was receiving mental health services, were predictive of placement stability which had not been previously confirmed in other studies. Chemical dependency and use of substances was found to be associated with stability for subsequent placements, which was not identified in the placement stability research reviewed.

The major policy and practice implication of this study is that placement stability can be improved through the implementation of a structured decision making protocol for making foster care placements in a level of care based upon assessed risk factors. Placement decisions are made every day in foster care agencies across the country. This research represents a starting point for understanding and building evidence to support foster care placement decision-making. While there is a great deal of attention on the importance of placement stability in the research literature, little is documented on the effectiveness of placement decision-making practices for children in foster care for achieving stability and other well-being outcomes.

Care must be taken in generalizing from the results of this study. Although the sample size for this study was substantial and the time period utilized covered a period of 18 months, the placement episodes that were a part of the sample were comprised of children in State custody under the care of [agency name removed], which was only one of the contractors of the privatized child welfare system in the state. This should be considered when extrapolating results from this study to other states and child welfare systems. The contract agency was responsible for all children removed by the state agency in two substate regions, which has similarities to governmental (e.g., state or county) agencies. However, differences in the child risk factors of a child population served, the categorization of placement types into levels of care and associated treatment services, and overall funding levels for services in another state or agency may require modifying and re-testing of the levels of care assignments.

It should be noted that the APLI data analyzed here were already being used as part of the placement decision-making process at TFI Family Services. Those with higher scores on the APLI were most likely to be placed in more service intensive settings. Thus there is a degree of confounding between the use of the instrument itself and the actual placement setting that cannot be separated with the available data. However, one would expect that the ability of the APLI to predict placement stability would be even stronger if placements were made independent of the score or simply randomly. Constructing a control or comparison groups was not possible and thus represents a limitation.

Future research would be strengthened by considering the time a child was in foster care for subsequent placements given that the risk of placement changes diminish the longer children are in foster care (Wulczyn et al., 2003). Likewise an improved classification and data entry of placement end reasons as suggested by James (2004) could shed additional light on placement stability research.

While there are positive signs of taking a systematic approach to placement decision-making, the use of the APLI for level of care assignment is but one component of the ECAP system. Continuing research efforts are needed to understand how each of the decision components of ECAP or other placement decision support models contributes to placement stability. One such component is the use of information on the match between the child attributes and the placement resource preferences. An analysis of this match was not possible in this study because historical records were not maintained. Another component of the placement decision that is worthy of closer examination is the use of information of each placement provider's (foster home) prior record of providing placement stability for previous children in their care.

Other considerations for staff in making placement decisions include the geographic proximity of a potential placement to the child's home, placement



with other siblings in foster care, and the desirability of stepping children down to lower levels of care (e.g., institutional care to family-like settings). Having this information available to staff making the placement decision, as provided in ECAP would more fully inform placement decisions and could enhance future research for developing decision support systems. While not at issue in this research, another consideration that can have an impact on placement decision-making is having an adequate supply of placement resources from which to choose.

As a follow-up to the study reported here, researchers made recommendations on how the item pool and scoring of the APLI might be modified to further improve its performance in predicting placement stability. Both scored and non-scored items were tested and scoring was adjusted according to strength of prediction. These modifications were carried out and new analyses were conducted using more current data. These results showed that the new version was even stronger in predicting placement stability.

There appears to be much promise in the development and evaluation of decision support systems for placing children in the best possible foster care placement. Given the complexity of such decisions there is much more research to be done to strengthen this important area of practice. There are numerous factors to be considered in the placement process as outlined in this study which may present opportunities for larger scale multivariate analyses that could ultimately inform individual child placement decisions. The ECAP system and the APLI provide one good step forward in this emerging practice area.

#### Note

1. This article presents the research that was done on the original APLI, which was subsequently changed providing different forms for new or subsequent placements, revised scoring, modified domains, and re-scaled level of care ranges.

## **Notes on contributors**

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