Foster Care Placement Improves Children’s Functioning

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Objective: To examine changes in reported functioning over a 12-month follow-up period and predictors of those changes for a cohort of young children enrolled in foster care.

Design: Data came from a longitudinal follow-up of a cohort of young children entering foster care in one Connecticut region. These data were originally assembled to evaluate the effectiveness of a specialized set of services designed to provide a baseline multidisciplinary assessment and ongoing monitoring for young children entering foster care.

Setting and Participants: From February 1, 1992, through July 31, 1993, all young children (N=120) entering foster care in one Connecticut region were enrolled in this study. Children were assessed at entry into care and at 6 and 12 months after entry. Participation rates exceeded 90% at each follow-up period.

Main Outcome Measures: The principal outcome of interest for these analyses is 12-month functioning as measured by the Vineland Adaptive Behavior Scale (VABS) scores completed by their foster mothers.

Results: At entry into foster care, children ranged in age from 11 to 76 months, were evenly divided by sex, and had a mean VABS score of 79.5 signifying functioning below the average range. At 6 months children gained an average of 7.87 points on their VABS score. By 12 months children showed an average change of 9.65 points, for a mean VABS score of 94.5, well within the nationally normed average range. The multivariate linear model predicting the 12-month VABS score showed that, controlling for the baseline VABS score, when children who were abused, older at placement, female, of African American ethnicity, spent more time in foster care, and had fewer recommended services while in care, they were more likely to show improvement on the foster mother–reported VABS evaluation.

Conclusions: These results demonstrate that children's reported functioning improves over the course of placement in foster care and that sociodemographic characteristics, reason for placement, length of time in foster care, and fewer recommended services at entry into foster care identified children who were more likely to improve. These results argue for a careful examination of the foster care environment to better understand which aspects of the environment contribute to improved foster mother reported functioning. Such understanding will be critical for the care and development of maltreated children.


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The 1999 US estimates indicate that 547,000 children are in foster care nationwide, a 35% increase from 1990 estimates of 405,743 foster children, and a 125% increase from the estimate of 243,000 in 1982. A cross-sectional count of children in foster care in March 1999 identified that 83% of the children remained in care for 6 months or longer with an average length of stay of 33 months.

These children enter the foster care system with a high frequency of physical and mental health, developmental, and educational problems, many with problems in multiple domains. Current estimates of children presenting with chronic health problems range from 35% to 80%, and those with mental health problems constitute anywhere from 35% to 95% of the foster care population. Developmental, emotional, and/or behavioral problems have been diagnosed in up to 84% of foster children, and 31% to 67% have educational problems, including those receiving special education services (11%-37%) or more generally functioning below grade level (23%-67%)

Further, there has been considerable evidence implicating the foster care system for inadequate and uncoordinated provision of health, mental health, developmental, and educational services for the many children in need of these services, although for children who have been maltreated this provision may,
PARTICIPANTS AND METHODS

From February 1, 1992, through July 31, 1993, 100% of young children (aged 11-74 months) entering foster care in one administrative region in Connecticut were enrolled in this study. These children represent the entire population of young children eligible for foster care since Connecticut, unlike many states, had no private agency foster placements. By sampling design, children were selected for whom this was the first episode of substitute care, although, by the time they were evaluated for this study, some children had lived in more than one foster care home. All children placed in care through the Waterbury office of the Department of Children and Families and living in the Waterbury area were assessed at a community-based multidisciplinary clinic, the Foster Care Clinic (FCC). Within 60 days of placement, 92% of these children received a baseline, mental, health and development, and assessment in the FCC (n=62; 53 [or 85.5%] were seen at the FCC at ≤30 days). The FCC visit consisted of an interview with the foster parent, usually the foster mother, as well as a complete medical examination; developmental, psychological, and speech and language assessments; and motor skill evaluation. The examinations were completed by providers from community agencies and referrals for services were made back to these agencies. The payment for this comprehensive evaluation was generated through Medicaid.

During the same 18-month time frame, all young children (aged 11-74 months) placed into substitute care in the same region but through the Danbury-Torrington office of the Department of Children and Families were also enrolled in the study (n=38). The foster parents of these children received the same interview as the foster parents of the children placed through the Waterbury office, administered by trained interviewers within their homes rather than at the FCC, and children were assessed for the same medical examination, developmental, psychological, and speech and language, and motor skills using the same battery of instruments employed in the FCC. Fifty (86%) of the Danbury-Torrington families and children were evaluated using the FCC instruments within 60 days of placement. The results of these assessments were not provided to either the children’s social services workers or their medical providers. Foster parents and social workers were asked about any medical, psychological, and developmental services these children had received while in foster care and, subsequently, records were obtained by project staff from the office and/or agency where children had received care for each encounter. These services were part of the customary care received by children in foster care and were not the result of the study’s assessment procedures.

All children were followed up at 6- and 12-months after baseline. Follow-up rates with both foster parents and biological parents for reunified children were excellent with 57 (92%) of the Waterbury-based children and 53 (91%) of the Danbury-Torrington children followed up at 6 months and 36 (90%) of the Waterbury and 54 (93%) of the Danbury-Torrington children followed up at 12 months. All study procedures were approved by the Human Investigation Committee of the Yale University School of Medicine, New Haven, Conn.

MAIN OUTCOME MEASURES

The contents of the baseline, 6-, and 12-month assessments are listed in Table 1. The Department of Children and Families’ intake forms supplied information on the demographics of the child, the child’s family of origin, reason for placement, and other social services history. In Connecticut, children can be placed in foster care because of substantiated neglect or abuse. Additionally, they can be placed because they are at imminent risk for abuse and neglect. According to the Department of Children and Families, being at risk for abuse and neglect is defined as no hard evidence of abuse or neglect but the presence of some factor in the environment (e.g., substance abuse) that greatly increases the likelihood of abuse and neglect. The foster parent interview collected demographic information on the foster family, a measure of the child’s mental health, and scores or ratings on the Child Behavior Checklist, Family Environment Scale, and the home survey of the Early Screening Profiles (ESP) of the child included the

nevertheless, be an improvement over their previous receipt of care.31,32 However, there has been little examination of the consequences of the foster care experience itself on a child’s health or functioning. One characteristic of foster care, length of time in placement, has been the focus of study for some time, but not in association with foster children’s well-being. There have been many descriptive studies identifying the amount of time children have resided in foster care and the number of placements they have experienced, as well as studies examining the association between the time children are in foster care with the reasons for their initial placement and other predictor variables, and with dispositional status. Not only do these studies fail to examine other important outcomes for foster children, many are problematic because of their cross-sectional nature, which biases their estimates of duration of care, and others are dated, limiting their applicability.

Findings from the Fanshel and Shinn results longitudinal examination of the effect of the foster care experience on a child’s functioning found that extended time in foster care was associated with significant improvement in academic achievement and gains in IQ. The Fanshel and Shinn results are echoed by several other investigators. Maluccio and Fein in a review of long-term follow-up studies of children who had been in foster care, concluded that children who had been in foster care functioned similarly to their peers in the general population. In a 1999 review, Minty likewise concluded that outcomes after foster care placements may be better than professional opinion might suggest. However, the available data are scant, particularly for public policy purposes. Unfortunately, many of the studies cited in these reviews are decades old, have usually restricted the children they examine to those who are long-term residents in foster care, and rarely include very young children.

Given the scarcity of longitudinal data available for children in foster care, this study examines the baseline, 6-, and 12-month functioning scores for a cohort of young children enrolled in foster care. Specifically, this re-
search examines changes in functioning as reported by foster mothers during the time children resided in foster care and baseline characteristics, including physical and mental health problems as well as receipt of services for those problems, which are potentially related to changes in reported functioning.

Table 2 lists the baseline sociodemographic, social services, and developmental, physical, and mental health characteristics of the study children. Children ranged in age from 11 to 76 months and were evenly divided by sex. Children were most often placed because they were at risk for abuse (38 children [48.3%]) and, within this first episode of foster care, most children were in the foster home they were originally placed in (97 children [80.8%]). As with most cohorts of children in foster care, these children had high rates of medical problems (80 children [66.7%]), had poor language scores (29 children [33.7%] in the 63-80 range on the ESPs), and had significant behavioral issues (23 children [24.2%] in the clinical or subclinical range on the Child Behavior Checklist).

Table 3 displays information on the foster families. Foster mothers most often had at least a high school education (68.3%), were homemakers (50.0%), and were either new (35.0%) or long-term (≥6 years; 37.5%) foster parents.

Table 4 gives the VABS scores over time. At baseline, children had a mean VABS score of 79.5 points, indicating functioning below the average range. There were no differences in VABS scores for children who had been in 1 foster home (mean, 79.6 points) vs those who had been in more than 1 foster home (mean, 78.8 points) prior to the initial assessment. By 6 months, we observed an average reported mean change in functioning of 7.87 points and an average score of 86.5 points. By 12 months after entry into foster care, we observed an average reported mean change of an additional 9.65 points and an

### RESULTS

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over all mean functioning of 94.5 points, well within the nationally normed average range.

Table 5 summarizes the results of the multivariate linear model predicting 12-month VABS score. Controlling for baseline VABS score, abuse as a reason for placement, older age at placement, female sex, African American ethnicity, longer time in foster care, and fewer recommended services while in foster care were all statistically significantly related to improved functioning as reported by the foster mother. This model explained 50% of the variance in the 12-month VABS score.

COMMENT

These results demonstrate that children's reported functioning improves over the course of placement in foster care. To determine whether this improvement is simply an artifact of abnormally low scores at baseline because of the trauma of being separated from family, we examined improvement over 2 six-month intervals and improvement for children who had multiple homes during the first episode of foster care prior to the baseline assessment. The first finding of note is that improvement in the first 6 months is similar to that in the second 6 months. The second finding is that children who had more than 1 foster care home prior to the baseline assessment had the same baseline VABS score and were equally likely to increase in reported functioning over the 12-month follow-up compared with children who were in 1 home at the baseline assessment. Further, reported improvement is related to sociodemographic characteristics, specifically age, sex, and ethnicity; reason for placement; number of physical and mental health services received; developmental and educational services recommended at entry into foster care; and length of time in care. These findings are important for several reasons. First, they demonstrate that certain subgroups of children entering foster care may be more likely to show improved functioning over time, namely, those who are older, female, and were abused. Second, they demon-
strate that children with greater needs, as approximated by the number of services recommended at baseline, were less likely to improve over time. This finding is consistent with earlier retrospective work showing that children with more developmental, behavioral, and physical health problems at entry into care were more likely to remain in care.

The importance of early identification and treatment of children’s problems cannot be overstated. The relationship of problems at entry into care with remaining in care and, indeed, improvements in reported functioning. We demonstrate considerable variation across homes, were not the ESP and the Family Environment Scale, although dem-

 assessed foster family environments, the HOME Scale on in functioning. Unfortunately, the variables we had that an initial attachment to a foster parent, promote growth specific features of the foster care environment, such as problems children displayed at entry into care.

We were unable to identify with these data whether specific features of the foster care environment, such as an initial attachment to a foster parent, promote growth in functioning. Unfortunately, the variables we had that assessed foster family environments, the HOME Scale on the ESP and the Family Environment Scale, although demonstrat- ing considerable variation across homes, were not related to improvements in reported functioning. We believe a careful look at the foster parent–foster child interactions may provide some insight into the aspects of the foster care environment that promote increases in foster mother–reported functioning.

Finally, our data argue against reporting bias as an explanation for these increases in reported functioning since children who experienced a change in foster homes continued to increase in the foster mother’s reported functioning evaluation. At baseline, children who remained in the same home throughout the 12 months had a VABS score of 79.72 compared with 79.31 for children who eventually changed placements (t = 0.13; P = .90). At 12 months, those who remained in the same home had a mean VABS score of 97.66 and those who changed homes had a mean score of 91.91 (t = 1.14; P = .26). Thus, it does not seem as if the foster mothers whose children remained with them for 12 months were more likely to rate children’s functioning as improved at 12 months compared with foster mothers who had known their children for less than 12 months (mean time in placement at the 12-month assessment for those who changed homes = 7.1 months).

As with all research, these results must be viewed in light of their limitations. First, our outcome measure, VABS score, was foster parent–reported and although the VABS score correlated highly with ESP and other interviewer-administered scales, we made no attempt to measure functioning independent of the foster mothers’ reports. Second, this is a small sample of young children

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**Table 3. Baseline Sociodemographic Characteristics of 120 Foster Families**

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>No. (%) of Foster Families</th>
</tr>
</thead>
<tbody>
<tr>
<td>Educational level of foster mother</td>
<td></td>
</tr>
<tr>
<td>Less than high school</td>
<td>38 (31.7)</td>
</tr>
<tr>
<td>High school or GED certificate</td>
<td>45 (37.5)</td>
</tr>
<tr>
<td>More than high school</td>
<td>37 (30.8)</td>
</tr>
<tr>
<td>Employment status of foster mother†</td>
<td></td>
</tr>
<tr>
<td>Working</td>
<td>36 (31.0)</td>
</tr>
<tr>
<td>Homemaker</td>
<td>58 (50.0)</td>
</tr>
<tr>
<td>Other</td>
<td>22 (19.0)</td>
</tr>
<tr>
<td>Household income, $‡</td>
<td></td>
</tr>
<tr>
<td>&lt;25 000</td>
<td>40 (36.0)</td>
</tr>
<tr>
<td>25 000 to 44 999</td>
<td>31 (27.9)</td>
</tr>
<tr>
<td>≥45 000</td>
<td>40 (36.0)</td>
</tr>
<tr>
<td>Length of time as foster parent, y</td>
<td></td>
</tr>
<tr>
<td>&lt;1</td>
<td>42 (35.0)</td>
</tr>
<tr>
<td>≥1, but &lt;3</td>
<td>18 (15.0)</td>
</tr>
<tr>
<td>≥3, but &lt;6</td>
<td>15 (12.5)</td>
</tr>
<tr>
<td>≥6</td>
<td>45 (37.5)</td>
</tr>
</tbody>
</table>

*GED indicates General Educational Development. †Responses are missing for 2 intervention children and 2 comparison children. ‡Responses are missing for 9 children.

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**Table 4. VABS Scores Over Time**

<table>
<thead>
<tr>
<th>Duration, mo</th>
<th>Range</th>
<th>Mean (SD)</th>
<th>Mean Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline</td>
<td>40-141</td>
<td>79.5 (16.8)</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>56-150</td>
<td>86.5 (20.2)</td>
<td>7.87</td>
</tr>
<tr>
<td>12</td>
<td>51-154</td>
<td>94.5 (24.9)</td>
<td>9.85</td>
</tr>
</tbody>
</table>

*VABS indicates Vineland Adaptive Behavior Scales; ellipsis, not applicable. At 6 and 12 months all P values were less than .001.

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**Table 5. Multivariate Linear Model Predicting 12-Month After Entry Into Foster Care VABS Score**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Parameter Estimate</th>
<th>SE</th>
<th>P</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>25.5</td>
<td>11.0</td>
<td>†</td>
<td></td>
</tr>
<tr>
<td>Baseline VABS</td>
<td>0.5</td>
<td>0.11</td>
<td>.00</td>
<td></td>
</tr>
<tr>
<td>Abuse as reason for placement</td>
<td>35.1</td>
<td>6.04</td>
<td>.00</td>
<td></td>
</tr>
<tr>
<td>Age of child at entry into care</td>
<td>6.1</td>
<td>1.22</td>
<td>.00</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>-7.0</td>
<td>3.76</td>
<td>.06</td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>8.0</td>
<td>4.19</td>
<td>.06</td>
<td></td>
</tr>
<tr>
<td>Time in foster care, mo</td>
<td>0.9</td>
<td>0.42</td>
<td>.03</td>
<td></td>
</tr>
<tr>
<td>No. of services received at entry into care</td>
<td>-7.9</td>
<td>3.73</td>
<td>.04</td>
<td></td>
</tr>
</tbody>
</table>

What This Study Adds

Children enter foster care with many physical and mental health problems. However, there has been little research on the consequences of the foster care experience for children’s functioning.

At entry into foster care, children had a mean functioning score below the average range. At the 12-month follow-up, children showed an average change of almost 10 points, for a mean score well within the nation-

ally normed average range. The multivariate linear model predicting 12-month scores showed many important predictors of increased functioning in addition to baseline functioning. The results argue for a careful examination of the foster care environment to better understand what aspects of the environment contribute to improved functioning.

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placed for the first time in foster care in one Connecticut region. The results may not apply to older children, those who have experienced multiple episodes of foster care, or those in other geographic regions. When this study was undertaken, foster care placements, particularly for young children, were unusually stable. Finally, without considerable additional information about the foster care homes these children were placed in, the reasons for the impressive increases in functioning remain unknown.

Regardless of these limitations, the findings lead us to conclude that children’s functioning, as reported by their foster mothers, improves while in foster care. Further, understanding the features of the foster care experience most likely to promote improved reported functioning will be critical for the care and development of maltreated children.

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REFERENCES


