SAFE Homes: Is it worth the cost?
An evaluation of a group home permanency planning program for children who first enter out-of-home care[☆]

Allen D. DeSena [a], Robert A. Murphy [d], Heather Douglas-Palumberi [a], Gary Blau [b], Blandina Kelly [c], Sarah M. Horwitz [a], Joan Kaufman [a,*]

[a] *Yale University, Department of Psychiatry, Child and Adolescent Research and Education (CARE) Program, University Towers, Suite H, 100 York Street, New Haven, CT 06511, USA*
[b] *Center for Mental Health Services, Washington, DC, USA*
[c] *Department of Children and Families, Hartford, CT, USA*
[d] *Center for Child and Familiy Health, Duke University Sarah Horwitz, Case Western Reserve University, USA*

Abstract

Objective: To evaluate the SAFE Homes (SH) program, a short-term group care program for children between 3 and 12 years of age who enter care for the first time. The program aims to improve case outcomes by consolidating resources to facilitate assessment and treatment planning.

Methods: The 1-year outcomes of 342 children who received SAFE Home services and 342 matched foster care (FC) control children were compared. The 684 subjects used in this report were selected from a larger pool of 909 subjects using propensity score matching to control for hidden bias in treatment group assignment. We hypothesized that SAFE Homes would result in greater continuity of care for children (e.g., fewer placements, more placements with siblings and in towns of origin), identification of more relatives for substitute care when needed, reduced use of high-cost restrictive care settings (e.g., residential, inpatient), and reduced rates of re-abuse through earlier detection and provision of services to meet child and family treatment needs.

Results: Prior to the initiation of the SAFE Homes program, 75% of the children who entered care in the State experienced three or more placements in the first year. The outcomes of both the SH and FC cases were significantly improved over pre-SAFE Home State statistics. The FC group, however, had comparable or better outcomes on

most variables examined. In addition, the total cost for out-of-home care for the children in FC was significantly less, despite the fact that the two groups spent similar amounts of time in care (average time in care: 7 months). This finding held when the total placement cost was calculated using the State reimbursement rate of $206.00 per day for SAFE Home care (SH: $20,851 ± 24,231; FC: $8,441 ± 21,126, $p < .001$), and a conservative SAFE Home program fee of $85.00 per day that only considered the child care and custodial staffing costs uniquely associated with the program (SH: $13,314 ± 21,718; FC: $8,441 ± 21,126, $p < .001$).

Conclusion: Improvements in outcomes related to continuity of care can be attained through staff training. The SAFE Home model of care is not cost-effective for first-time placements.
© 2005 Published by Elsevier Ltd.

Keywords: Permanency planning; Foster care

Introduction

Recent studies estimate that there are slightly over one-half million maltreated children in foster care (FC) nationwide (DHHS, 2003), and approximately 6,400 children in foster or residential care in the State of Connecticut (DCF, 1998). It is estimated that 50–75% of children who enter care nationwide will return home (Barth, 1994; Committee on Ways and Means, 1991), but 20–40% of these children will re-enter care within an year or two (Barth, 1995; Courtney, 1995; Wulczyn & George, 1992). Unfortunately, many children who enter out-of-home care experience multiple placements and spend the majority of their lives in "foster-care drift"—moving from one home to the next without ever obtaining a permanent home (Kaufman & Zigler, 1996; Knitzer, Allen, & McGowan, 1978; Russo, 1991).

Multiple out-of-home placements are associated with several adverse child and adult outcomes (McDonald, Allen, Westerfelt, & Piliavin, 1996). They increase the likelihood of the development of depressive disorders in maltreated children (Kaufman, 1991), promote the development of behavior problems in children with few difficulties at placement onset and exacerbate pre-existing behavior problems (Newton, Litrownik, & Landsverk, 2000), and are associated with problems in school achievement (Cook, Fleishman, & Grimes, 1991). In adulthood, having had multiple placements as a child is associated with fewer years of education (Cook et al., 1991; Zimmerman, 1982), greater housing instability (Meier, 1965), lower rates of self-support (Zimmerman, 1982), increased risk of persistent violent antisocial behavior (Widom, 1991), greater likelihood of early parenthood (Cook et al., 1991), and more severe parenting problems caring for the next generation (Kaufman & Zigler, 1989; Zimmerman, 1982).

In light of the negative consequences associated with long stays in care and multiple changes in placements, Congress passed the Adoption and Safe Families Act in 1997 (P.L. 105–89, 1997). This legislation mandates, with some exceptions, that permanency be achieved for maltreated children who have been in out-of-home care for 15 of the last 22 months. Connecticut and several other states require permanency be achieved if children have been in out-of-home care for only 12 months. Permanency can be attained via: (1) family reunification, (2) child adoption, or (3) long-term placement with kin or nonrelative foster caregivers who are granted legal guardianship. The aim of permanency planning efforts is to maximize the likelihood of children being wanted and having at least one adult that they identify as a psychological parent (Goldstein, Solnit, Goldstein, & Freud, 1996), since the availability of a positive relationship with one or more caregivers has been identified as one of the most important factors in ameliorating a host of negative sequelae associated with child maltreatment (e.g., Egeland & Jacobvitz, 1984).

Coinciding with the passage of the Adoption and Safe Families Act (P.L. 105–89, 1997), the Commissioner of the Department of Children and Families (DCF), the child protection services agency in Connecticut, reviewed state statistics and saw that the average school-aged child who entered out-of-home care in Connecticut experienced four to five placements, with approximately 75% of the children experiencing three or more placements within the first year (DCF, 1998). In addition, emergency placements resulted in children being separated from their siblings approximately 70% of the time. About equally often, children were placed an hour or more from their community of origin, because at the time of the removal, no foster home could be identified in the child's community of origin that could accommodate all the siblings (DCF, 1998). Consequently, when parent-child contact was clinically indicated, it was often logistically impossible to achieve after children entered care. The Commissioner realized that there were many ways in which the system's response to protect maltreated children was further compounding their trauma. In addition to having experienced events that warranted coercive state intervention and removal from their biological parents, these children were unnecessarily separated from their siblings, friends, schools, and all that was familiar to them.

To help promote stability for these children, and reduce the stress associated with the need for out-of-home placement, the State of Connecticut developed the SAFE Homes (SH) program for children between 3 and 12 years of age. In Connecticut, younger children are placed in family settings. Unlike most prior permanency planning efforts that were designed for children with extended histories of out-of-home care (Clark et al., 1994; Fanshel, Finch, & Grundy, 1989; Fraser, Walton, Lewis, Pecora, & Waton, 1996; Katz, 1990; Lahiti, 1982; Miller, Fein, Bishop, & Murray, 1985), the SAFE Home program is unique, in that it was designed for first-time placements.

Multiple private agencies have received contracts with the State to operate SAFE Homes. On average, these programs have the capacity to serve approximately 12 children (range: 8–20 beds). Mandatory staffing ratios are 1:4 for day, evening, and nighttime shifts, although most SAFE Homes provide greater staffing during peak hours to provide age-appropriate recreational and therapeutic activities. In addition to child care staff, all SAFE Homes have a range of clinical personnel. The SAFE Homes have the capacity to accept admissions 24-hour per day, 365 days per week, and operate with a no reject, no eject policy. The expected length of stay is 45 days. SAFE Home staff facilitate many of the responsibilities that in traditional foster care are completed by DCF staff, including: scheduling evaluations, providing transportation to appointments, supervising visitations, and providing a range of other case management and intervention services. SAFE Home staff also attends interagency case planning meetings and are expected to testify in court, when appropriate. In addition, SAFE Home staff provides modest after-care services for up to 2 months after discharge to facilitate the implementation of treatment recommendations—whether children are returned home or placed again with kin, in a foster home, or in another community-based setting. In traditional foster care, it is the DCF worker's responsibility to coordinate assessments and provide case management services, but these responsibilities are frequently difficult to achieve given competing child protection duties.

Four of the most important features of the SAFE Homes are that they: (1) provide a consolidation of resources to facilitate assessment and treatment planning; (2) are community-based permitting placement of children in close proximity to birth families facilitating visitation, evaluation, and crisis-intervention treatment; (3) allow siblings to stay together when placed; and (4) in most cases, allow children to continue in their school of origin during the assessment and treatment planning process.

The SAFE Home program incorporates many of the features that prior permanency planning pilot (Fanshel et al., 1989; Katz, 1990; Miller et al., 1985) and service demonstration (Clark et al., 1994;

Fraser et al., 1996; Lahiti, 1982) projects have identified as critical for successful intervention, including: (1) comprehensive assessment and treatment planning; (2) concurrent case planning (Katz, 1990, 1999), the simultaneous consideration of multiple permanency options (e.g., reunification, adoption, kinship care/guardianship); (3) reduced caseloads; (4) use of intensive case management and referral services; and (5) ongoing agency involvement at time of return or change in placement. Given that prior naturalistic follow-up studies have shown that the likelihood of returning home is greatest in the first year after removal (Davis, Landsverk, Newton, & Ganger, 1996), the SAFE Home program was designed for first-time placements, unlike most prior permanency planning efforts, which as previously noted, were designed for children with extended histories of out-of-home care (Clark et al., 1994; Fanshel et al., 1989; Fraser et al., 1996; Katz, 1990; Lahiti, 1982; Miller et al., 1985). The SAFE Home programs were also designed to be community based, as several studies have found reunification prospects are increased when parental visitation occurs at recommended intervals (Davis et al., 1996; McMurtry & Lie, 1992).

It was hypothesized that the SAFE Homes program would lead to a reduction in placement number and costs through improved identification of mental health problems which other investigators have found, if left untreated, can lead to placement disruption and the use of more restrictive and costly residential and psychiatric inpatient utilization (Barth, 1996; Courtney & Wong, 1996; Festinger, 1996; Fraser et al., 1996; Landsverk, Davis, Ganger, Newton, & Johnson, 1996; Potter & Klein-Rothschild, 2002). Children who received SAFE Home services were also expected to be more likely to be placed with all or some of their siblings and to be more likely to be maintained in their community origin. Through comprehensive assessment and treatment planning, it was also predicted that more relatives would be identified as placement options for children in the SH group, and that re-abuse rates would be lower for these children through early identification and targeted treatments for parental problems that increase risk for future incidents of child maltreatment.

The SAFE Homes program is currently in operation statewide, and several states have expressed an interest in replicating the Connecticut service model for first-time placements. Child welfare is replete with examples of widespread, costly implementation of service models that were untested prior to their proliferation (Heneghan, Horwitz, & Leventhal, 1996). Therefore, the goal of the current investigation is to examine the efficacy of the SAFE Homes program and determine the appropriateness of its widespread dissemination.

Methods

This study was reviewed by the Yale University Human Investigations Committee and the Department of Children and Families Institutional Review Board.

Sample

As the SAFE Homes program was implemented sequentially throughout the State, it was possible to obtain a foster care comparison group from communities where the SAFE Home program was not yet in operation. A sample of 684 children is included in this report: 342 children who received SAFE Home services and 342 foster care matched comparisons. Data were collected on all available children who received SAFE Home services between April 1, 1999, and December 31, 2000. April 1, 1999, marks the

beginning of the SAFE Homes program, and December 31, 2000, represents the cutoff date for inclusion that assured a minimum of 1-year follow-up for all study participants. Consistent with the eligibility criteria for the SAFE Homes program, children in the study ranged in ages from 3 to 12 years at the time of initial placement.

Inclusion/exclusion criteria

Children were included in the sample if: (a) the removal was the first placement for the child; (b) they entered out-of-home care between the dates (inclusive) of April 1, 1999, and December 31, 2000; and (c) they were between the ages of 3 and 12 years old at the time of entry into care. Children were excluded from the sample if: (a) their case record was incomplete (.8% of eligible cases); (b) access to the case record was denied for security reasons because the case involved relatives of DCF employees (2.5% of eligible cases); or (c) FC children had siblings that had previously gone through SH services in another community (1% of eligible cases).

Propensity score matching of subjects

The 684 subjects for this report were selected from a larger pool of 909 subjects using propensity score matching. The original cohort of 909 children included 456 children who received SAFE Home services and 453 foster care comparisons subjects. The 453 FC children were selected from a pool of 1,019 foster children, with each child in the original FC group matched by gender, age, and ethnicity to a SAFE Home case. While the original cohort of 909 subjects were matched on these and comparable on other demographic factors (e.g., parent's marital status, welfare history, number of children), the two cohorts were less well matched on several risk factors that might impact on case outcome. Specifically, in the original cohort of 909 children, 7–10% more FC than SH cases had parents involved with drugs and/or alcohol, siblings that were previously removed from the home, and parents with a criminal history.

Propensity scores adjust for all covariates with a single score. They are derived using logistic regression models (Rosenbaum & Rubin, 1983; Thomas, unpublished), and are used to control for hidden bias in selection of treatment group assignment in observational studies.

Maltreatment variables and risk factors utilized in generating the propensity scores in this study are outlined in Table 1. Following the methods delineated by Rosenbaum and Rubin (1983), the original cohort of 909 subjects was divided into five groups according to propensity score quintile to create five groups of subjects with similar risk and maltreatment history profiles. When there was an excess of children from one group included in a quintile, subjects from the other group were randomly removed so that the final sample included an equal number of SH and FC cases in each quintile. This resulted in a reduction of the original cohort of 909, to a sample of 684 propensity score matched subjects, with the two groups now statistically indistinguishable on each of the 16 case characteristics included in the propensity score.

Data extraction method and reliability

The data for this study were derived from the DCF LINKS system. LINKS is a computerized case record that has replaced the written record in Connecticut. LINKS contains information on family demographics,

Table 1
Maltreatment experiences and risk factors

	SAFE Home (%), $N = 342$	Foster care (%), $N = 342$	Significance
Maltreatment types			
Physical abuse	18	20	.41
Sexual abuse	2.9	4.4	.31
Physical neglect	79	81	.50
Educational neglect	7.6	5.8	.36
Medical neglect	9.6	7.6	.34
Risk factors			
Preschool age child	37	41	.31
Basic needs not met	41	36	.18
Previous substantiated report	68	72	.28
Previous removal of other child	21	25	.08
Violent relationship	26	31	.12
Drugs/alcohol	46	51.9	.11
Criminal activity	30	33	.21
Inadequate supervision	66	67	.75
Risky behavior	33	34	.81
Unable to protect children	67	69	.62
Cognitive/physical disability	21	24	.31

all reports and investigations, placement history, and case notes. Data extracted from LINKS for the present study are described below. To estimate inter-rater reliability, ten randomly selected cases were independently coded by two researchers (AD, HD-P). Agreement between the two coders was 100% on all measures described below.

Demographics

The following data were extracted from the LINKS record at the time of removal for each child: gender, date of birth, ethnicity, and town of origin. The following family data were also collected: parents' marital status, number of children and adults in the household, and public assistance status.

Number of maltreatment reports

The total number of substantiated reports of maltreatment was recorded. Number of reports of maltreatment prior to and subsequent to removal (e.g., re-abuse) was calculated separately.

Type of maltreatment

The DCF worker classified the experiences associated with each substantiated report according to maltreatment type: physical abuse, sexual abuse, physical neglect, educational neglect, or medical neglect. In some cases, more than one type of maltreatment was substantiated within a given report.

Risk factors

Workers completed an 11-item DCF derived risk assessment checklist for each substantiated report of maltreatment (see Table 1). The 11 items, rated present or not present, were: (1) child victim is preschool age; (2) primary caretaker is unable to meet basic needs: food, shelter, education, and/or medical care; (3) previous substantiated report of abuse or neglect; (4) primary caretaker has previously had a child removed from care due to abuse or neglect; (5) adult is in a relationship characterized by violence; (6) caretaker or others in household are in contact with drugs and/or alcohol and suffer from impaired judgment; (7) caretaker or others in household have been previously involved with criminal activities; (8) caretaker provides inadequate supervision; (9) caretaker permits or allow others into the home who engage in risky behavior; (10) caretaker does not take responsibility for the protection of the child; and (11) caretaker has some form of cognitive or physical disability that impacts parental skills. Risk factors were recorded at first placement, if that report was available, or the most recent report prior to the placement. If the report being used was 3 months or more from the first placement, the data were checked against the narrative/case notes. For SH and FC cases, approximately 70% of the risk data were gleaned from the report at the first removal, 17% of the data were taken from a report within 3 months, and 13% of the data were taken from a report 3 or more months from the removal and were checked against the narrative.

Number and duration of placements

Time of entry and discharge was recorded for all placements, and total time in care computed. All placement information was recorded for both SH and FC cases through 1 year from the date of the first removal.

Sibling status

The status of the children with respect to being placed with siblings for each placement was also coded as one of five categories: (1) child placed with all of his/her siblings; (2) child placed with some of his/her siblings; (3) child placed with none of his/her siblings and his/her siblings were placed elsewhere; (4) child placed with none of his/her siblings and his/her siblings were not placed; and (5) not applicable, only child.

Placement in community of origin

As one of the goals of the SAFE Homes program was to increase placement of children in their community of origin, placement location was coded using a five point scale indicating if child was placed in: (1) town of origin; (2) adjacent town; (3) same county; (4) other region of state; or (5) out-of-state placement.

Type of placement

Type of placement was coded as one of the following six categories: (1) SAFE Home; (2) traditional foster care (includes private nonrelative foster care services); (3) relative foster care; (4) residential care;

(5) therapeutic/medically complex foster care; and (6) other, which most frequently indicated psychiatric hospitalization.

Total placement costs

The total cost for each child's out-of-home care was computed using the number of days the child spent in each type of placement, and the average cost per day for that type of placement. The average cost per day for each type of placement was as follows: $206.00 per day for a SAFE Home placement; $23.12 for traditional foster care; $23.12 for relative foster care; $80.84 for therapeutic foster care; $177.00 for residential care; and $885.00 per day for inpatient psychiatric hospitalization. These costs are based on typical reimbursement to providers paid by the State during the years the study was conducted (1999–2001).

Conservative total placement cost estimation

While the State reimburses SAFE Homes $206.00 per day per child, the $206.00 includes payment for childcare and clinical staff. The clinical staff complete functions performed by DCF workers and community providers for children placed in traditional foster care (e.g., case management services, psychosocial evaluations). As these services were not systematically recorded for either group, it is impossible to estimate their costs. However, some costs associated with the SAFE Homes are unique to the program, such as residential advisor/child care staff and custodial personnel for the group home. Estimating the costs for the SAFE Homes program using only these staffing costs, the cost would be approximately $85 per day.

This more conservative cost estimate for the SAFE Home program was generated by determining the average child care staff required for 24-hour coverage for a group home that served 12 children, plus the cost of one full-time custodial staff for the group home. Minimum salaries were used to estimate staffing costs (e.g., $10 per hour), and fringe benefits were calculated at the rate of 30%. The conservative per child per day SAFE Home cost was then derived by dividing the 1-week personnel costs by 12 (number of children served by the staff) and 7 (number of days in the week).

Data analyses

Problems with missing data were minimal. Child demographic, maltreatment, and placement data variables were recorded for 100% of the subjects. Welfare status was reported for 99% of the cases, and the risk data were available for 96% of the cases. Parents' marital status, however, was only recorded in 89% of the cases.

Data were entered into the SPSS Data Entry Builder Program, Version 3.0. Data were then imported into SPSS, Version 10.0 or Version 8.0. Prior to performing any data analyses, variables were examined for the presence of any data entry errors and their respective distributions were tested for normalcy. Children received services from a total of 13 different SAFE Home sites. As there were no site effects noted, data were summed across sites.

Group differences between SH and FC cases were examined using two-tailed *t* tests for continuous variables and the chi-square statistic for categorical variables. For multiple comparisons, significance values were corrected with a Bonferroni correction for related variables.

Table 2
Demographic characteristics of the samples

Child characteristics	SAFE Home, $N = 342$	Foster care, $N = 342$	p Value
Gender (M/F)	55%/45%	54%/46%	.82
Ethnicity[a]	34%/32%/25%/9%	39%/26%/26%/9%	.30
Mean age	7.3 ± 2.9	7.3 ± 2.9	.94
Age group[b]	34%/29%/37%	33%/28%/38%	.95
Family characteristics	SAFE Home, $N = 309$	Foster care, $N = 268$	p Value
Marital status[c]	20%/62%/18%	25%/59%/16%	.59
Mean #children	1.6 ± 1.5	1.6 ± 1.5	.62
Mean #adults	$1.6 \pm .6$	$1.6 \pm .5$	.26
Proportion on welfare	45%	44%	.79

[a] Order for ethnicity is as follows: Caucasian/African-American/Hispanic/other.

[b] Order for age group is as follows: 3–5 years/6–8 years/9–12 years.

[c] Order for marital status is as follows: married, single, cohabitation.

Results

Comparability of SH and FC propensity score matched cases

Demographic characteristics. The SH and FC samples were comparable on all demographic variables (see Table 2). Approximately 55% of both cohorts were male, and the samples were approximately evenly divided by ethnicity. The mean age of the children was 7.3 years, and approximately one-third of the children in both cohorts were between 3 and 5 years of age, one-third were between 6 and 8 years of age, and one-third were 9–12 years of age. The samples were also comparable in terms of the proportion of single parent families, mean number of children per family, mean number of adults per family, and proportion of families receiving welfare.

Maltreatment experiences. The SH and FC children also had comparable maltreatment experiences, with a similar number of substantiated reports of maltreatment documented prior to the children's first removal (SH: 1.84 ± 1.38; FC: 1.94 ± 1.35; $p < .30$). In addition, as indicated in Table 1, there were no differences in the proportion of SH and FC children who experienced physical abuse, sexual abuse, or physical, educational, or medical neglect prior to placement.

Risk factors. As indicated in Table 1, the SH and FC children were also well matched on risk factors. The two groups had a comparable number of risk factors endorsed per family (SH: 7.88 ± 2.5, FC: 7.93 ± 2.7, $p = .84$), and each of the risk factors was present approximately equally often in the two cohorts.

Outcome measures: SAFE Homes versus traditional foster care

Number of placements. Figure 1 shows the number SH and FC children who experienced one, two, three, or four or more placements in the first 12 months in care. Overall, SH children experienced a greater number of placements than the FC children (SH: 2.15 ± 1.1, range: 1–8; FC: 1.68 ± 1.1, range:
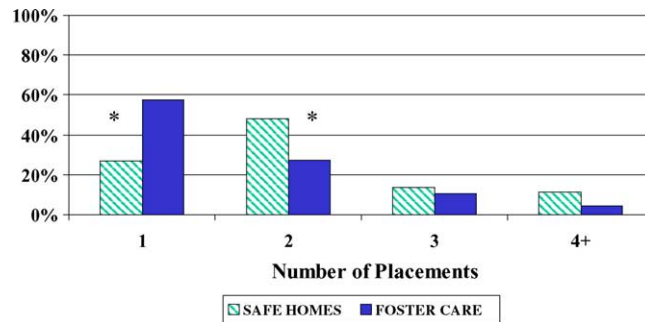
Figure 1. Percent of children experiencing one, two, three, or four or more placements. Note. As SAFE Homes was designed as a short-term, treatment planning program, by definition, all children who were not reunited upon discharge from the SAFE Home, experienced two or more placements. (*) There is a statistical difference in the proportion of SH and FC children who experienced one or two placements.

1–10; $p < .001$). The differences in the mean number of placements for the two groups, however, is largely attributable to the proportion of SH and FC children with one versus two placements. As SAFE Homes was designed as a short-term, treatment planning program, by definition, all children who were not reunited upon discharge from the SAFE Home, experienced two or more placements.

Duration in out-of-home care. Children spent an average of 7 months in out-of-home care. Those going through the SH program spent approximately 3 weeks longer in care on average than FC children (days in care: SH: 218 ± 145; FC: 196 ± 155; $p < .07$).

Location at 1-year follow-up. Table 3 shows the location of the children at 1-year follow-up. The children in the SH group were less likely to be living with their birth parents, and more likely to be living with relatives or placed in a therapeutic foster home or residential care facility at follow-up and at any point during the year. After controlling for multiple comparisons, however, only the differences in proportion

Table 3
Location at 1-year follow-up

Place of residence	SAFE Home (%), $N = 342$	Foster care (%), $N = 342$	Significance, $p < .05$	Bonferroni correction
Home	47	55	.05	*ns*
Foster care	26	32	.08	*ns*
Relative foster care	16	9	.005	Significant
Residential care[a]	4.7	2.0	.05	*ns*
Therapeutic/medically complex FC	3.5	1.2	.04	*ns*
Psychiatric hospitalization[b]	.3	.9	.32	*ns*

[a] SH children were more likely to be placed in residential care at some point during the year than FC children (SH: 6.7%, FC: 2.3%; $\chi^2 = 7.60$, $p = .006$, Bonferroni correction, significant).

[b] SH and FC children were equally likely to have a psychiatric hospitalization at some point during the follow-up (SH: 2.9%, FC: 3.8%, $\chi^2 = .41$, $p = .53$).

of children living in relative care and the proportion of children placed in residential care at some point during the year were significantly different between the two groups (see Note on the bottom of Table 3).

Placements with siblings. At the time of the first placement, children who received SAFE Home services were significantly more likely to be placed with all their siblings (SH: 49%, FC: 28%, $p < .05$), and almost two and a half times less likely to be placed without any siblings (SH: 9%, FC: 21%, $p < .05$). The advantage of the SAFE Home program with regard to keeping siblings together, however, was not retained at 1-year follow-up. Of the children with siblings who were still in care (SH = 181; FC = 154), children who received FC were equally likely to be living with all (SH: 24%, FC: 29%, *ns*) or some (SH: 40%, FC: 44%, *ns*) of their siblings.

Placement in town of origin. At time of initial placement, children in the FC group were more likely to be placed in their community of origin than SH children (SH: 24%, FC: 32%, $\chi^2 = 12.0$, $p < .02$). At 1-year follow-up, among the children not returned to their birth parents or living with relatives, the children in both groups were now equally likely to be placed in their town of origin or an adjacent town (SH: 40%, FC: 57%, $\chi^2 = 9.7$, $p = .14$).

Rates of re-abuse. During the 1-year period of follow-up, almost 10% of the children experienced new substantiated incidents of child maltreatment. Comparable rates of substantiated maltreatment were noted in the SH and FC cohorts (SH: 8.8%, FC: 9.6%, $\chi^2 = .14$, $p = .71$).

Cost of out-of-home placements. While the SH and FC children spent a comparable time in placement, the total cost for the out-of-home care of the children who were originally placed in SAFE Homes was significantly greater than the total out-of-home care expenditures of the children who went initially to traditional foster care because the SAFE Home program was not yet in operation in their community. The total placement costs of the SH group was significantly greater than the FC group when costs were calculated using the State reimbursement rate of $206.00 per day for SAFE Home care (SH: $20,851 \pm 24,231$; FC: $8,441 \pm 21,126$, $p < .001$), and when costs were estimated using the conservative SAFE Home program rate of $85.00 per day that only considered the child care and custodial staffing costs uniquely associated with the SAFE Home program (SH: $13,314 \pm 21,718$; FC: $8,441 \pm 21,126$, $p < .001$).

Table 4 shows the proportion of total dollars spent for out-of-home care for SH and FC cases. Over $10,000,000 was spent for the out-of-home care costs of the combined sample. The entire out-of-home placement costs for the FC group comprised less than 30% of the total expenditures. This includes all out-of-home care costs associated with the FC group that on average spent a mean of 7 months in care. When using the State reimbursement rate, the initial SAFE Home placement cost exceeded the total cost for all the out-of-home placements of the FC group, even though the average length of stay for children in the SAFE Homes program was only 48 days, and the average length of time in care for children in the foster care group was 7 months. Using the more conservative fee of $85.00 per day for the SAFE Home program, the initial average 48 day stay in the SAFE Home program still cost more than the initial placement for children in the foster care group who were at their initial placement for an average of 116 days (SH: $1,438,795 vs. FC: $924,914).

Noteworthy are the inpatient hospitalization costs that were comparable for the two groups, but quite substantial. As only 24 children in the two groups required inpatient psychiatric hospitalization, it is

Table 4

Proportion of total expenditures utilized by SAFE Home and foster care cases for each type of placement (total expenditures: $10,017,857)[a]

Type of placement	SAFE Home cost, $ (%)	Foster care cost, $ (%)
Initial placement (SH or FC)	3,486,962 (35)	924,914 (9.2)
Subsequent safe home	515,000 (5)	–
Subsequent foster care	736,881 (7.4)	352,094 (3.5)
Subsequent relative foster care	384,832 (3.8)	188,960 (1.9)
Subsequent residential care	810,483 (8)	250,986 (2.6)
Subsequent therapeutic FC	182,537 (1.8)	73,483 (.8)
Subsequent psychiatric hospitalization	1,014,210 (10)	1,096,515 (11)
Total	7,130,905 (71)	2,886,952 (29)

Note. Even if the more conservative estimate of cost for the SAFE Home program is utilized (e.g., $85.00 per day), the initial average 48 day stay in the SAFE Home program cost more than the initial placement for children in the foster care group who were at their initial placement for an average of 116 days (SH: $1,438,795 vs. FC: $924,914).

[a] Percentages in table represent the percent of the total out-of-home care expenditures for the entire sample ($N = 684$). The percent of the budget utilized for the SH children's initial placement in the SAFE Homes program (mean length of stay = 48 days) was greater than the percent of the budget utilized for all the out-of-home placements of the FC group (mean length of stay = 203 days).

incredible that the inpatient costs for these 24 children utilized over 20% of the total budget—or approximately $2,100,000. Clinical anecdotes suggest that the extended hospitalization of many of these children was frequently due not to psychiatric need, but rather an absence of a place to go after discharge (average length of stay = 85 days; range: 1–295 days; average cost: $885 per day).

Discussion

Prior to the establishment of the SAFE Homes program, the average school-aged child who entered care in the State of Connecticut experienced four to five placements, and 75% of the children experienced three placements within the first year (DCF, 1998). Since the initiation of the SAFE Home program, the State is doing considerably better, with fewer than 25% of the children who enter care experiencing three or more placements within the first year. These improvements, however, cannot be attributed to the SAFE Homes program, per se, as the children who received traditional foster care services because the SAFE Home program was not yet in operation in their communities of origin experienced a comparable reduction in number of out-of-home placements.

Since the initiation of the SAFE Homes program, children are also more likely to be placed with siblings and more likely to be maintained within their community of origin. These improvements again, however, cannot be attributed to the SAFE Homes program, as the children who received traditional foster care services because the SAFE Home program was not yet in operation in their communities of origin were equally or more likely to have these outcomes.

The cost of the SAFE Home program is also prohibitive. When using the State reimbursement rate of $206 per day, the initial SAFE Home placement costs exceeded the total cost for all the out-of-home placements of the FC group, even though the average length of stay for children in the SAFE Homes

program was only 48 days, and the average length of time in care for children in the foster care group was 7 months. The cost of care for the SAFE Home group was significantly greater than the cost of care of children who received traditional foster care services, even when using the conservative rate of $85 per day for SAFE Home care which only considers the child care and custodial staffing expenses uniquely associated with the group home program.

Is the SAFE Homes program worth the cost? One goal of the SAFE Home program was to increase the use of relative foster care through the completion of more comprehensive initial treatment planning evaluations. The children in the SAFE Homes program were more likely to be placed with relatives at the 1-year follow-up. While this finding was statistically significant, the absolute difference was relatively modest (16% vs. 9%). Additional legislative changes are likely required to increase the use of relative foster care, including modifying licensure requirements for kin, providing greater financial support for children in kinship care, and offering subsidized guardianship programs (Child Welfare League of America, 1994; Testa, 2002).

Another goal of the SAFE Homes program was to reduce the use of high-cost restrictive settings through the early identification of mental health problems, and the delivery of appropriate outpatient services to address these problems. SAFE Homes children, however, were more likely to be placed in residential treatment settings at some point during the year, with the residential treatment of the SH group costing more than three times the residential treatment costs of the FC group. The SAFE Homes children were also equally likely to require inpatient psychiatric care, with the inpatient psychiatric treatment costs comparable for the two groups (average length of stay: 85 days, mean cost: $885 per day). Within the total sample of 684 children, while only 24 children required psychiatric hospitalization, the inpatient treatment costs for these 24 children utilized over 20% of the total out-of-home care expenditures for the entire cohort of 684 children. As clinical anecdotes suggest that the extended hospitalization of these children was frequently not due to psychiatric need, but rather an absence of a place to go after discharge, it may be useful to explore the SAFE Home model as an alternative to extended inpatient hospitalization for these high-cost users with a history of multiple out-of-home placements and/or significant mental health service needs.

Another goal of the SAFE Homes program was to reduce re-abuse through comprehensive assessment and treatment planning. The SAFE Home program was associated with a modest reduction in rates of re-abuse—8.8% versus 9.6%—but this difference was not statistically significant. By all standards, both rates are too high—especially because these officially substantiated cases likely represent an underestimation of the actual number, since it is well documented that not all incidents of child maltreatment come to the attention of the authorities (Finkelhor, 1984; Straus & Gelles, 1986; Wolfner & Gelles, 1993).

There are several limitations to the present study. Child protective services records are often incomplete (Fantuzzo & Twentyman, 1986), and the data obtained for this study were not verified against external sources. In addition, a retrospective record review does not allow us to obtain measures of child well-being and service use, which are both important outcomes to consider in fully evaluating the cost-effectiveness of any program. The cost and re-abuse data are compelling, however, and suggest the need for the development of alternative intervention approaches.

The SAFE Homes program, like most child welfare programs nationwide, is a short-term intervention. It may be time for a paradigmatic shift in how child welfare services are delivered. We have been using an infectious disease model in our treatment approaches with maltreating families, operating under the assumption that a quick course of antibiotics will cure the problem. It may be time to move to a chronic disease model in child welfare—as our most successful prevention programs to date have not resulted

from "quick fixes"—but from sustained, multifaceted interventions (Olds et al., 1998; Zigler & Berman, 1983).

Zeanah and Larrieu (1998) designed an alternative, longer-term model of intervention for infants and toddlers removed from their parents' care due to abuse and/or neglect. Briefly, children are maintained in traditional foster care settings and provided supplemental assessment and intervention services. After legal adjudication establishing that the child has been maltreated, there is a phase of intensive assessment. The assessment phase comprises an average of 15–20 hours of face-to-face contact with children and all their important caregivers. The assessment includes home- and clinic-based observations, structured and unstructured interviews, and self-report questionnaires completed by the children's parents. The assessment is used to identify strengths and weaknesses in children and families, and to address the overarching question of what interventions will be necessary to return the children safely to their parents. The assessment phase culminates in a case conference for involved professionals, a feedback session for parents, and a letter to juvenile court detailing specific findings and recommendations. Ongoing treatment and case management services are then provided for up to 12 months. Distinct advantages of this program include: (1) treatment planning assessments made by a specialized team of experts; (2) coordination of parent and child assessments by a single team; and (3) ongoing intervention, evaluation, and case management for up to 12 months—the same period of time set by the State to determine permanency for children who enter out-of-home care. Preliminary data comparing cases and controls suggests that the combination of expert assessment, active collaboration with protective services and the courts, and sustained intervention is effective in reducing rates of re-abuse and promoting permanency outcomes in maltreated infants and toddlers who enter out-of-home care (Zeanah et al., 2001).

As at least 50% of all child welfare cases involves substance abuse, with rates as high as 90% reported in some parts of the country (National Center on Addiction and Substance Abuse, 1999), several states have developed innovative approaches to help families involved with protective services that specifically addresses this problem. Given the time lines imposed by Adoption and Safe families Act (P.L. 105–89, 1997), unless substance abuse treatment is available promptly, the opportunity for intervention may be lost (McAlpine, Marshall, & Doran, 2001). Some intervention approaches currently being utilized to address parent substance abuse problems include: having adult addiction services liaisons work in child welfare offices to facilitate client referral for treatment (McAlpine et al., 2001); hiring substance abuse counselors to work in child welfare offices to perform on-site evaluations and identify appropriate resources for clients (Semidei, Radel, & Nolan, 2001); and establishing family drug courts which provide a highly structured venue within which treatment services are offered, sanctions are applied for noncompliance, and program progress is meticulously monitored allowing permanency decisions to be made more quickly on the basis of better information (Semidei et al., 2001). Dialectical Behavior Therapy (DBT) programs for substance abusing parents may be an additional alternative promising approach worthy of evaluation, as DBT programs have been found to be more effective than treatment-as-usual for substance abusing patients with borderline personality disorder (Linehan et al., 1999)—patients who exhibit many of the core difficulties observed among protective service clients (e.g., history of early childhood trauma, intense unstable relationships, difficulty tolerating distress, labile affect, impulsiveness).

There is currently preliminary empirical support for several other permanency planning initiatives (Horwitz, Owens, & Simms, 2000; Lutz, 2003; Martin, Barbee, Antle, & Sar, 2002). Like the programs discussed above, these programs involve expert, comprehensive assessment, concurrent case planning, multifaceted individualized treatments, and longer-term interventions.

Conclusions

Child welfare is replete with examples of widespread, costly implementation of service models that were untested prior to their proliferation. The architects of the SAFE Home program were well intentioned. The model, however, is not cost-effective for children entering care for the first time. Through rigorous evaluation of child welfare programs, the system of care for families involved with protective services can be further improved. Child welfare cases represent some of the greatest clinical challenges. Refinement of practice parameters for this population requires a commitment of federal, state, local, and private resources, and ongoing state agency and university collaborations. We can, and must, do better.

Acknowledgements

References

Barth, R. P. (1994). Adoption research: Building blocks for the next decade. *Child Welfare*, *73*, 625–638.

Barth, R. P. (1995). The reunification of very young children from foster care. *The Source*, *5*, 15–16.

Barth, R. P. (1996). The juvenile court and dependency cases. *Future Child*, *6*(3), 100–110.

Child Welfare League of America. (1994). *Kinship care: A natural bridge*. Washington, DC: Child Welfare League of America.

Clark, H. B., Prange, M., Lee, B., Boyd, L., McDonald, B., & Stewart, E. (1994). Improving adjustment outcomes for foster children with emotional and behavioral disorders: Early findings from a controlled study on individualized services. *Journal of Emotional & Behavioral Disorders*, *2*, 207–218.

Committee on Ways and Means, US House of Representatives. (1991). Overview of entitlement programs: Background material and data on programs with the jurisdiction of the Committee on Ways and Means. In *Green Book*. Washington, DC: US Government Printing Office.

Cook, R., Fleishman, E., & Grimes, V. (1991). *A national evaluation of Title IV-E foster care independent living programs for youth: Phase 2* (Final report, Vol. 1). Unpublished report. Rockville, MD: Westat Inc.

Courtney, M. (1995). Reentry to foster care of children returned to their families. *Social Science Review*, *69*, 226–241.

Courtney, M., & Wong, Y. I. (1996). Comparing the timing of exits from substitute care. *Children and Youth Services Review*, *18*, 307–334.

Davis, I., Landsverk, J., Newton, R., & Ganger, W. (1996). Parental visiting and foster care reunification. *Children and Youth Services Review*, *18*, 363–382.

Department of Children and Families (DCF). (1998). *Department of Children and Families, State of Connecticut, statistics on children in out-of-home care*. Unpublished document.

Department of Health and Human Services (DHHS). (2003). The AFCARS report. US Department of Health and Human Services, Administration for Children and Families, Administration on Children, Youth, and Families, Children's Bureau.

Egeland, B., Jacobvitz, D. (1984). *Intergenerational continuity of parental abuse: Causes and consequences*. Paper presented at the conference on biosocial perspectives in abuse and neglect, York, Maine.

Fanshel, D., Finch, S., & Grundy, J. (1989). Foster children in life course perspective: The Casey family experience. *Child Welfare*, *68*, 391–402.

Fantuzzo, J., & Twentyman, C. (1986). Child abuse and psychotherapy research: Measuring social concerns and empirical investigation. *Professional Psychological Research and Practice*, *17*, 375–380.

Festinger, T. (1996). Going home and returning to foster care. *Children and Youth Services Review*, *18*, 383–402.

Finkelhor, D. (1984). *Child sexual abuse: New theories and research*. New York: Free Press.

Fraser, M., Walton, E., Lewis, R., Pecora, P., & Waton, W. (1996). An experiment in family reunification: Correlates of outcomes at 1 year follow-up. *Children and Youth Services Review*, *18*, 335–361.

Goldstein, J., Solnit, A., Goldstein, S., & Freud, A. (1996). *The best interest of the child: The least detrimental alternative*. New York: Free Press.

Heneghan, A. M., Horwitz, S. M., & Leventhal, J. M. (1996). Evaluating intensive family preservation programs: A methodological review. *Pediatrics*, *97*, 535–542.

Horwitz, S. M., Owens, P., & Simms, M. D. (2000). Specialized assessments in foster care. *Pediatrics*, *106*, 59–66.

Katz, L. (1990). Effective permanency planning for children in foster care. *Social Work*, *35*, 220–226.

Katz, L. (1999). Concurrent planning: Benefits and pitfalls. *Child Welfare*, *78*, 71–87.

Kaufman, J. (1991). Depressive disorders in maltreated children. *Journal of the Academy of Child and Adolescent Psychiatry*, *30*, 257–265.

Kaufman, J., & Zigler, E. (1989). The intergenerational transmission of child abuse. In D. Cicchetti & V. Carlson (Eds.), *Child maltreatment: Theory and research on the causes and consequences of child abuse and neglect* (pp. 129–150). Cambridge: Cambridge University Press.

Kaufman, J., & Zigler, E. (1996). Child abuse and social policy. In E. Zigler, S. L. Kagan, & N. Hall (Eds.), *Children, families, and government: Preparing for the twenty-first century* (pp. 233–255). Cambridge: Cambridge University Press.

Knitzer, J., Allen, M., & McGowan, B. (1978). *Children without homes: An examination of public responsibility to children in out-of-home care*. Washington, DC: Children's Defense Fund.

Lahiti, J. (1982). A follow-up study of foster children in permanent placements. *Social Service Review*, *56*, 556–571.

Landsverk, J., Davis, I., Ganger, W., Newton, R., & Johnson, I. (1996). Impact of child psychosocial functioning on reunification from out-of-home placement. *Children and Youth Services Review*, *18*, 447–462.

Linehan, M. M., Schmidt, H., III, Dimeff, L. A., Craft, J. C., Kanter, J., & Comtois, K. A. (1999). Dialectical behavior therapy for patients with borderline personality disorder and drug-dependence. *American Journal of Addiction*, *8*, 279–292.

Lutz, L. L. (2003). Achieving permanence for children in the child welfare system: Pioneering possibilities admidst daunting challenges. *The Semi-Annual Newsletter of the National Resource Center for Foster Care and Permanency Planning*, 1–20.

Martin, M. H., Barbee, A. P., Antle, B. F., & Sar, B. (2002). Expedited permanency planning: Evaluation of the Kentucky Adoptions Opportunities Project. *Child Welfare*, *81*, 203–224.

McAlpine, C., Marshall, C. C., & Doran, N. H. (2001). Combining child welfare and substance abuse services: A blended model of intervention. *Child Welfare*, *80*, 129–149.

McDonald, T. P., Allen, R. I., Westerfelt, A., & Piliavin, I. (1996). *Assessing the long-term effects of foster care*. Washington, DC: Children's Welfare League of America Press.

McMurtry, S. L., & Lie, G. (1992). Differential exit rates of minority children in foster care. *Social Work Research* & *Abstracts*, *28*, 42–48.

Meier, E. G. (1965). Current circumstances of former foster children. *Child Welfare*, *44*, 196–206.

Miller, K., Fein, E., Bishop, G., & Murray, C. (1985). Public-private collaboration and permanency planning. *Social Casework*, *66*, 237–241.

National Center on Addiction and Substance Abuse. (1999). *No safe haven: Children of substance-abusing parents*. New York: Columbia University Press.

Newton, R. R., Litrownik, A. J., & Landsverk, J. A. (2000). Children and youth in foster care: Distangling the relationship between problem behaviors and number of placements. *Child Abuse* & *Neglect*, *24*, 1363–1374.

Olds, D., Henderson, C. R., Cole, R., Eckenrode, J., Kitzman, H., Luckey, D., Petitt, L., Sidora, K., Morris, P., & Powers, J. (1998). Long-term effects of nurse home visitation on children's criminal and antisocial behavior. *Journal of the American Medical Association*, *280*, 1238–1244.

P.L. 105–89. (1997). The Adoption and Safe Families Act.

Potter, C. C., & Klein-Rothschild, S. (2002). Getting home on time: Predicting timely permanence for young children. *Child Welfare*, *81*, 123–150.

Rosenbaum, P. R., & Rubin, D. B. (1983). The central role of the propensity score in observational studies for causal effects. *Biometrika*, *70*, 41–55.

Russo, E. (1991, December 22). Stress and lack of support are driving foster parents away. *Lincoln Journal-Star*, 1A.

Semidei, J., Radel, L. F., & Nolan, C. (2001). Substance abuse and child welfare: Clear linkages and promising responses. *Child Welfare*, *80*, 109–128.

Straus, M. A., & Gelles, R. J. (1986). Societal change and change in family violence from 1975 to 1985 as revealed by two national surveys. *Journal of Marriage* & *the Family*, *48*, 465–479.

Testa, M. F. (2002). Subsidized guardianship: Testing an idea whose time has finally come. *Social Work Research*, *26*, 145–158.

Thomas, C. *Methods for propensity analysis: SMDM short course on propensity*. Unpublished manuscript. Cleveland, OH.

Widom, C. S. (1991). The role of placement experiences in mediating the criminal consequences of early childhood victimization. *American Journal of Orthopsychiatry*, *61*, 195–209.

Wolfner, G. D., & Gelles, R. J. (1993). A profile of violence toward children: A national study. *Child Abuse & Neglect*, *17*, 197–212.

Wulczyn, F., & George, R. (1992). Foster care in New York and Illinois: The challenge of rapid changes. *Social Services Review*, *66*, 278–294.

Zeanah, C. H., & Larrieu, J. A. (1998). Intensive intervention for maltreated infants and toddlers in foster care. *Child and Adolescent Psychiatry Clinics of North America*, *7*, 357–370.

Zeanah, C. H., Larrieu, J. A., Heller, S. S., Valliere, J., Hinshaw-Fuselier, S., Aoki, Y., & Drilling, M. (2001). Evaluation of a preventive intervention for maltreated infants and toddlers in foster care. *Journal of the American Academy of Child Adolescent Psychiatry*, *40*, 214–221.

Zigler, E., & Berman, W. (1983). Discerning the future of early childhood intervention. *American Psychologist*, *38*, 894–906.

Zimmerman, R. B. (1982). Foster care in retrospect. *Tulane Studies in Social Welfare*, *14*, 14.

Résumé

French-language abstract not available at time of publication.

Resumen

Spanish-language abstract not available at time of publication.