Using sibling data to understand the impact of family group decision-making on child welfare outcomes

Stephanie Cosner Berzin *

Graduate School of Social Work, Boston College, McGuinn Hall, 140 Commonwealth Avenue, Chestnut Hill, MA 02467, USA

Received 3 February 2006; received in revised form 19 February 2006; accepted 17 March 2006
Available online 14 July 2006

Abstract

Few studies have examined the impact of family group decision-making (FGDM) on child welfare outcomes. Studies in this area have often suffered from small sample sizes and lack of adequate comparison groups. Since FGDM is administered at the family level, sibling data provides an ideal way to compensate for small sample sizes and low enrollment rates in research evaluating FGDM. This study utilized sibling data from California’s Title IV-E Waiver Demonstration Project Evaluation in Fresno and Riverside Counties to compare child welfare outcomes for children of families randomly assigned to receive FGDM (Fresno County, \( n=110 \); Riverside County, \( n=87 \)) to children of families assigned to receive traditional child welfare services (Fresno County, \( n=74 \); Riverside County, \( n=52 \)). After controlling for clustering effects using general estimating equations (GEE), group differences in child maltreatment, placement stability, and permanence were modeled using linear and logistic regression. Outcomes from both counties suggested no group differences. Though neutral outcomes on child welfare indicators may bring into question FGDM’s efficacy for changing child welfare outcomes, this study confirms previous findings with smaller sample sizes on the impact of FGDM and demonstrates a methodological improvement over individual or family-case analyses. © 2006 Elsevier Ltd. All rights reserved.

Keywords: Child welfare; Family group decision-making; Siblings; Random assignment; Experimental design

1. Introduction

With over 60% of youth in foster care having siblings also in out-of-home care (Hochman, Feathers-Acuna, & Huston, 1992; Needell et al., 2005; New York Administration for Children’s Services, 2001), it is increasingly important to examine sibling relationships and family level
interventions in child welfare. Recent research has examined the role of siblings in foster care (Shlonsky, Elkins, Bellamy, & Ashare, 2005). Specific areas of study have included sibling placement and separation (Wulczyn & Zimmerman, 2005), legal protection for siblings in the foster care system (Shlonsky, Bellamy, Elkins, & Ashare, 2005), the effects of sibling placements on child welfare outcomes (Leathers, 2005; Tarren-Sweeney & Hazell, 2005; Webster, Shlonsky, Shaw, & Brookhart, 2005), and the methodological issues in defining sibling groups (Lery, Shaw, & Magraduer, 2005). Results show more positive outcomes for youth placed with siblings in foster care (Hegar, 2005; Leathers, 2005; Webster et al., 2005). Government mandates also promote the placement of siblings together (Children’s Bureau, 2005). Though government policy encourages intact-sibling placement, research examining the impact of family level interventions on siblings in the child welfare system is still relatively scarce.

Previous research on the treatment of children in foster care has focused primarily on intervention models for the individual child. Research that does involve siblings has included the use of family and sibling therapy (Hoyle, 1995), as well as the use of sibling patterns as a determinant of treatment course (Leavitt, Gardner, Gallagher, & Schamess, 1998). Interventions that involve multiple family members, including structured decision-making, wraparound services, family group decision-making, and family preservation, have become increasingly popular. Though these interventions have been intended to serve multiple family members, little research exists that examines the effectiveness of these interventions on multiple siblings within a group. This study utilized sibling data from California’s Title IV-E Waiver Demonstration Project to evaluate the effectiveness of family group decision-making (FGDM), one intervention aimed at families, on child welfare outcomes.

Family group decision-making is one intervention model that focuses on the family instead of focusing on the individual child. In general terms, FGDM is a child welfare decision-making process in which all parties with an interest in the well-being of the child and his or her family are gathered together to discuss the safety and protection of the child, any reported incidents of child maltreatment, the families strengths and resources, and any changes that may be necessary to promote the health and welfare of the entire family unit (i.e., the child, parents, and siblings) (Merkel-Holguin, 1996). Family group decision-making embodies philosophies that promote the family’s ability to care for their children and the use of the family’s strengths to solve family problems (Graber, Keys, & White, 1996). Families are brought together and empowered to make decisions that will best serve their needs and the needs of their children (Maluccio & Daly, 2000; Moore & McDonald, 2000). By using this family approach, FGDM can address the differential needs and concerns of each sibling during the family planning meeting. Family planning meetings are used to present multiple perspectives on family issues. Through this process, multiple solutions are attained and family dynamics are improved. In addition, since FGDM seeks to bring together multiple family members and empower the family to solve its own problems, siblings can be encouraged to help each other solve problems. The family plans generated through these meetings are unique in that they address not only court-ordered plans for families and children, but also include more individualized elements (Thomas, Berzin, & Cohen, 2005). These elements can be specific to individual family members, such as individual therapy for one child, or they can outline activities that help multiple siblings (e.g., family will have dinner together one night per week). The elements of FGDM combine to create a unique environment in which the family, with the help of professionals, is given the power to solve its own problems.

While FGDM does address families in their entirety (i.e., the child, parents, and siblings), no study to date has used sibling data to examine outcomes related to FGDM. Previous research on family group decision-making (FGDM) has been primarily focused on processes, model fidelity, and client
satisfaction (Jones, 2004, January; Pennell & Burford, 1994; Sieppert, Hudson, & Unrau, 2000). The
limited research on outcomes has had mixed results. Though some studies have suggested positive
effects of FGDM programs (McDonald & Associates, 2000; Pennell & Burford, 1994; Vesneski &
Kemp, 2000), other research has suggested neutral outcomes as a result of the program (Center for
Social Services Research, 2004; Sundell & Vinnerljung, 2004) Many of these studies also suffer
from small sample sizes and a lack of adequate comparison groups. Since FGDM is administered at
the family level, using GEE with sibling data is a methodological improvement over previous
research and a way to increase sample size. In addition, since this study makes use of data from the
California Title IV-E Waiver Demonstration Project, in which families were randomly assigned to
FGDM services, problems related to adequate comparison groups are eliminated.

2. Methods

2.1. Study setting and participants

This study makes use of sibling data from the California Title IV-E Child Welfare Waiver
Demonstration Project (Center for Social Services Research, 2004). Under the Waiver Demon-
stration Project, the California Department of Social Services and selected California counties
were permitted to waive federal and state restrictions on the use of federal foster care funds,
allowing for flexible use of these funds over a five-year period to test FGDM and other approved
interventions.

Fresno and Riverside Counties implemented FGDM as part of the Waiver Project. Though
both counties implemented FGDM, they targeted different populations and used different im-
plementation models. Fresno County targeted children ages birth to 18 years who were assessed
as being at moderate to high risk for further maltreatment, as indicated by California’s Structured
Decision Making Family Risk Assessment, and whose families were eligible for voluntary in-
home services. All Fresno County children selected for the study resided at home at the time of
enrollment. Additional criteria required a protective hold on at least one child in the family and at
least three support persons to attend the conference (i.e., family planning meeting). Riverside
County’s program was aimed at children ages 2 to 12 years who were placed in foster family or
relative care and were at-risk of placement moves or placement in a higher level of care.

In both counties, though FGDM was implemented at the family level, an individual study child
was selected for the original evaluation (Center for Social Services Research, 2004) This study
makes use of data from the original study child and his or her sibling group. Data were available for
all siblings who had an open case in the child welfare system at the time of the study. Families were
assigned as a unit to either the treatment (i.e., receiving FGDM) or control group (i.e., receiving
traditional services); therefore, multiple siblings in the same family would receive the same in-
tervention. Random assignments were made in a 5:3 ratio (treatment: control) after the family had
agreed to participate in the study.

The study sample included children enrolled between April 2000 and December 2002. The
study compared children receiving FGDM (Fresno County, \(n=103\); Riverside County, \(n=105\)) to
children assigned to traditional services (Fresno County, \(n=61\); Riverside County, \(n=58\)). Select
demographics can be seen in Table 1.

There were no significant differences in child welfare history between the treatment and control
groups. The only significant difference in demographics was in the case of gender; in Fresno County,
a significantly higher number of children in the treatment group were female. In addition, the average
number of siblings per family did not differ between study groups in either county.
2.2. Intervention

Fresno and Riverside Counties implemented their FGDM models using philosophies and goals consistent with previous literature (Ban, 1996; Doolan & Phillips, 2000; Graber et al., 1996; Hassall, 1996; Maluccio & Daly, 2000; McDonald & Associates, 2000; Merkel-Holguin, 1996; Pennell & Burford, 1994), but their structural approaches were different. Fresno County utilized a blended approach to FGDM, which blends the Family Unity and Family Group Conferencing models. Their approach incorporated a formal strengths assessment phase and private family meeting time during the conference. Fresno County’s intervention was designed to last 6 months with only one conference. Riverside County used the Family Unity Model of FGDM, which includes a formal strengths assessment phase at the conference and the development of the family plan by all conference participants. Riverside County also provided families with multiple conferences after their initial family conference. Eligible families were provided with services until the court and the agency closed the case.

2.3. Data collection and analysis

Administrative data for this study were extracted from the California Children’s Services Archive (Archive). The Archive is administered by the Child Welfare Research Center at the University of California at Berkeley. The primary data in the Archive are from the Child Welfare

---

Table 1
Study children demographics including siblings*

<table>
<thead>
<tr>
<th></th>
<th>Fresno (n=164)</th>
<th>Riverside (n=163)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>51% (n=83)</td>
<td>56% (n=91)</td>
</tr>
<tr>
<td>Female</td>
<td>49% (n=81)</td>
<td>44% (n=72)</td>
</tr>
<tr>
<td><strong>Ethnicity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caucasian</td>
<td>19% (n=31)</td>
<td>36% (n=58)</td>
</tr>
<tr>
<td>African American</td>
<td>14% (n=23)</td>
<td>22% (n=36)</td>
</tr>
<tr>
<td>Hispanic</td>
<td>57% (n=94)</td>
<td>43% (n=69)</td>
</tr>
<tr>
<td>Other</td>
<td>10% (n=16)</td>
<td>–</td>
</tr>
<tr>
<td><strong>Average number of children per family</strong></td>
<td>2.7 children (SD=1.5)</td>
<td>3.3 children (SD=1.9)</td>
</tr>
<tr>
<td><strong>Mean age at enrollment</strong></td>
<td>5.2 years (SD=4.4)</td>
<td>6.0 years (SD=3.9)</td>
</tr>
<tr>
<td><strong>Placement at enrollment</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Home</td>
<td>100% (n=164)</td>
<td>–</td>
</tr>
<tr>
<td>Foster family home</td>
<td>–</td>
<td>13% (n=21)</td>
</tr>
<tr>
<td>FFA</td>
<td>–</td>
<td>1% (n=2)</td>
</tr>
<tr>
<td>Relative home</td>
<td>–</td>
<td>84% (n=135)</td>
</tr>
<tr>
<td>Guardian home</td>
<td>–</td>
<td>1% (n=2)</td>
</tr>
<tr>
<td><strong>Reason for child welfare involvement</strong></td>
<td>51% (n=66)</td>
<td>31% (n=51)</td>
</tr>
<tr>
<td>General neglect</td>
<td>29% (n=38)</td>
<td>45% (n=74)</td>
</tr>
<tr>
<td>Caretaker absence or incapacity</td>
<td>10% (n=13)</td>
<td>8% (n=13)</td>
</tr>
<tr>
<td>Physical abuse</td>
<td>5% (n=6)</td>
<td>6% (n=9)</td>
</tr>
<tr>
<td>Severe neglect</td>
<td>4% (n=5)</td>
<td>3% (n=5)</td>
</tr>
<tr>
<td>Sexual abuse</td>
<td>1% (n=1)</td>
<td>–</td>
</tr>
<tr>
<td>Exploitation</td>
<td>–</td>
<td>2% (n=4)</td>
</tr>
<tr>
<td>Emotional abuse</td>
<td>–</td>
<td>4% (n=7)</td>
</tr>
</tbody>
</table>

*Note: n sizes in the table reflect missing data.
Services/Case Management System (CWS/CMS), the information system administered by the California Department of Social Services and used by county child welfare workers to manage information related to a child’s involvement with the child welfare system. Administrative outcomes gathered from this dataset were related to placement and child safety. Specifically, data focused on (a) child safety as indicated by reports of child abuse and neglect, and removal from the home; (b) placement stability, including number of placements and type of placement moves; and (c) permanency outcomes, including case closure and exit type.

Descriptive statistics related to demographics, placement history, and reason for child welfare intervention were taken from the CWS/CMS database. Inferential analyses were used to examine differences between the treatment and control groups. The main independent variable included for analysis was study group, defined as treatment or control. Multivariate analyses controlled for time in the study, which was defined as the number of days between the study child’s enrollment date and the date of data extraction (12/31/02). Dependent variables were linked to safety, placement stability, and permanency. Specific variables included the following: 1) safety: number of substantiated maltreatment reports, and removal from caregiver during the study period (yes/no); 2) placement stability: number of placement moves, placement moves as a dichotomous measure (0 moves or 1 or more moves), and steps up in placement (e.g., from a foster home or FFA to a group home); and 3) permanency: case closure during the study period (yes/no) and exit type (e.g., family stabilization, refusal of services).

Since this study made use of sibling data, analyses had to take into account clustering effects for siblings from the same family group. Siblings are not independent of each other and therefore violate the assumption of independence for most analyses. Standard errors would be underestimated and parameter estimates would be overestimated using traditional methods that do not account for clustering. In order to correct for this, general estimating equations (GEE) were utilized. GEE models allowed the researcher to improve standard error and parameter estimates by controlling for clustering (Diggle, Liang, & Zeger, 1994; Webster et al., 2005; Zeger, Liang, & Albert, 1988). For all GEE models an exchangeable structure was utilized, which assumed that any two siblings had the same degree of correlation. GEE does not allow the researcher to control for unobserved family effects, as would be the case in a fixed effects model. Though this is an advantage of a fixed effect model, the problem with this model is that it depends on within cluster variation (i.e., siblings would only be included in the analysis if their outcomes were different). Given that sibling outcomes are often similar within the context of child welfare this would mean losing data on many families. Specific analyses are described in detail below.

Data on safety-related outcomes for both counties were examined using GEE techniques for both bivariate and multivariate analysis. Bivariate analysis was conducted on reports of maltreatment following enrollment in both counties. In Fresno, an additional measure of safety, removal from the caregiver was also explored. Multivariate analysis, which controlled for a child’s time in the study and past occurrences of maltreatment, was also used to examine maltreatment. Placement stability was not examined in Fresno County, since all children were at home at the time of enrollment. In Riverside County, placement moves were explored using bivariate and multivariate methods. GEE was again used to control for clustering effects of sibling groups. Placement stability was modeled using a continuous measure, the number of placement moves, and a dichotomous measure, zero versus one or more placement moves. Permanency outcomes were explored in both counties, again using GEE methods. In Fresno County, since children were not in out-of-home placement and were in voluntary family maintenance (VFM) at enrollment, permanency refers only to whether the child welfare case was closed and does not necessarily involve a change in court status. Case closure was examined by closure status and exit type using bivariate analysis. Multivariate analysis was also used
to explore case closure and the most common exit types (i.e., family stabilization and service refusal). In Riverside County, case closure and exit type were also explored using bivariate and multivariate analysis. GEE methods were used to control for sibling effects in all permanency analyses.

3. Results

3.1. Child safety

Child safety following enrollment in the FGDM program was assessed by examining reports of substantiated child maltreatment during the study period. Analysis using GEE to control for sibling dependence in both Fresno County (maltreatment for treatment group, $n=13$; maltreatment for control group, $n=1$; $p=.07$) and Riverside County (maltreatment for treatment group, $n=19$; maltreatment for control group, $n=2$; $p=.19$) suggested that children who received FGDM had higher rates of substantiated maltreatment than children who did not receive the intervention; however, these differences were not statistically significant. In almost all cases, substantiated maltreatment occurred to all or none of the siblings in a family. Logit analysis, controlling for time in the study and previous accounts of maltreatment, showed that the intervention had no significant impact on maltreatment rates in either county, though past reports of maltreatment did predict subsequent maltreatment in Riverside County ($p=.05$).

In Fresno County, since the target population was children in voluntary family maintenance, the program also aimed to decrease the rate of removal from the home. Only two children, a set of siblings, were removed from their caregiver during the study period. Though both were in the treatment group, Fischer’s Chi-square test showed no significant difference between groups. Further analysis could not be conducted due to small sample size.

3.2. Placement stability

Riverside County targeted children placed in out-of-home care and therefore had goals related to placement stability and movement to higher levels of care. Analysis of these outcomes yielded no significant differences between treatment and control groups. Only one child from the treatment group moved to a group home during the study; however, this event was too infrequent to analyze and examine group differences. The mean number of moves (treatment group mean = .75, SD = 1.17; control group mean = .55, SD = 1.14) did not differ between the two groups; the range was 0–5 moves for children in each group. Multivariate analysis, using GEE also yielded no group differences when controlling for a child’s time in the study; however, time in the study did predict the number of placement moves as would be expected ($p=.02$). Logistic regression, examining placement moves dichotomously (no moves versus one or more moves) and controlling for time in the study also yielded no differences between the two groups. In this model, the amount of time a child spent in the study was not a significant predictor of child welfare outcomes. While the majority of children in the study did have the same number of placement moves as their siblings, there were four families in the treatment group and three families in the control group that had children with different numbers of moves; this difference was not statistically significant.

3.3. Permanency-related outcomes

Permanency outcomes were examined in both counties, though the county program impacted the selected outcomes. Specifically, in Fresno County, where families were part of VFM and court
dependence was never initiated, permanency was only examined as it pertained to case closure. Case closure means a case is closed when the VFM program and services are ended; court status is unaffected. Fifty-five cases (52%) closed in the treatment group, compared to 22 cases (59%) in the control group; this difference was not significant when examining sibling groups. In the vast majority of cases, all but three, cases closed for all siblings from the same family group.

The most common reason for case closure was family stabilization in both the treatment group (59%) and the control group (71%). Many cases also closed when the family refused services (38% in the treatment group and 27% in the control group). Differences in case closure type based on group assignment were not significant. Again, the majority of sibling cases closed for the same reason as their other family members.

General estimating equations were used to examine case closure while controlling for time in the study. There were no significant differences in the likelihood of case closure, or in the likelihood of case closure due to family stabilization or service refusal, based on group assignment. However, a child’s time in the study did predict the overall likelihood of case closure \((p = .006)\) and the likelihood of case closure due to family service refusal \((p = .009)\). In both models, a longer time in the study predicted the outcome.

The remainder of the analyses on permanency pertained only to Riverside County. Since Riverside County cases were part of the court system, case closure did represent a change in court status. Permanency outcomes related to reunification, adoption, and guardianship were explored (see Table 2). Though exit type did appear to be associated with group assignment, statistical analysis of individual exit type was not possible due to small sample size. Analyses of reunification/family stabilization rates and court ordered terminations showed no group differences.

Overall case closure rates were different for the two groups (52% for the treatment group and 39% for the control group), though this difference was not statistically significant. A GEE model showed that time in the study did predict the likelihood of case closure \((p < .001)\). Case closure and exit type did not vary much within families. No cases were closed due to runaway or hospitalization. Though court ordered termination was a common reason for case closure, no further information was available to indicate more about the nature of this exit.

### 4. Discussion

Consistent with previous analysis of the California Title IV-E Waiver data that showed neutral outcomes for children in the FGDM treatment group and those receiving traditional services (Center for Social Services Research, 2004), this study involving sibling data showed similar child welfare outcomes for youth receiving and not receiving FGDM. Results in this paper did show trends that suggested higher rates of maltreatment, more placement moves, and higher rates

<table>
<thead>
<tr>
<th>Exit type</th>
<th>Treatment</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reunification/family stabilized</td>
<td>36% ((n = 20))</td>
<td>39% ((n = 9))</td>
</tr>
<tr>
<td>Adoption/guardianship</td>
<td>24% ((n = 13))</td>
<td>–</td>
</tr>
<tr>
<td>Death of child</td>
<td>–</td>
<td>4% ((n = 1))</td>
</tr>
<tr>
<td>Placement with relative/kin-Gap</td>
<td>–</td>
<td>22% ((n = 5))</td>
</tr>
<tr>
<td>Court ordered termination</td>
<td>40% ((n = 22))</td>
<td>35% ((n = 8))</td>
</tr>
<tr>
<td>Total</td>
<td>55</td>
<td>23</td>
</tr>
</tbody>
</table>

Table 2: Exit type in Riverside County \((n = 163)\)
of service refusal for children in families receiving the intervention; however, none of these results were statistically significant.

The seemingly negative impact of FGDM on maltreatment rates may have been the result of hyper vigilance by the social worker, or greater involvement and higher rates of reporting by other family members. As FGDM seeks to improve the relationship between family members and county workers (Merkel-Holguin, 1996) it may also increase communication on issues related to maltreatment reporting. In addition, since social workers administering FGDM in Riverside County were in a special unit with smaller caseloads, they may have had additional time to interact with family members and, therefore be more aware of maltreatment issues.

Other child welfare outcomes (i.e. placement stability and permanence) also showed trends toward worse outcomes for the treatment group, but showed no significant differences between children receiving FGDM and children receiving traditional child welfare services. This may bring into question FGDM’s efficacy for changing child welfare outcomes, but it may also suggest that other measures to assess FGDM’s effectiveness would be more appropriate. FGDM may not be a strong enough intervention to effectively improve child welfare outcomes or may be just one step in improving these larger outcomes. Perhaps more intermediate outcome measures (e.g., family engagement, improved relationship between county and family, and improved family communication) would be better at assessing the impact of FGDM than these broader child welfare outcomes. Process data from California’s Waiver Study may also shed light on impacts of FGDM that extend beyond the measures examined here (Center for Social Services Research, 2004).

Neutral outcomes between treatment and control families in Fresno County may also reflect some level of contamination of FGDM principles and ideals. Since social workers in Fresno County served families in both treatment conditions, they may have unknowingly applied some of the FGDM philosophies to the control families. Though attempts were made to understand this contamination (Center for Social Services Research, 2004) this may have diluted potential treatment effects.

In spite of neutral findings, using sibling data was a methodological improvement over previous FGDM research that relied on individual level analysis for a family level intervention. Sibling data was also able to increase sample size and compensate for low enrollment. Even with this additional power, few group differences were detected between the treatment and control groups. Siblings in the same family group were, however, shown to have similar child welfare outcomes. By treating siblings together through an intervention aimed at the entire family (i.e., FGDM), siblings may be more likely to have similar outcomes than in traditional service models. Interventions that target whole families should be evaluated by examining entire sibling groups to see if effects are similar across siblings. It may be important to assess whether interventions that target the whole family actually serve all sibling members in the same way. FGDM’s unique ability to treat the family as a unit and the individual needs of specific children simultaneously, is also worthy of further examination.

Future research should use sibling data to further explore the impact of FGDM on child welfare outcomes and its ability to treat siblings in a family group. Research with larger sample sizes that utilize random assignment, as was done in this study, would provide a greater understanding of this intervention. In addition, researchers should use additional measures to gauge the success of FGDM. As policymakers and grant providers require proof of the efficacy of child welfare interventions, it will be important to more fully explore the effectiveness of FGDM.

Though this study fails to find evidence that FGDM leads to more positive child welfare outcomes than traditional services, it showed that children had neutral child welfare outcomes when receiving this experimental intervention instead of traditional services. In addition, this
research demonstrates the utility of using sibling data when examining child welfare outcomes for family level interventions. By utilizing sibling data, we were able to increase sample size and the power to detect group differences, and examine whether this family-level intervention affected child welfare outcomes differently for siblings. Child welfare remains a family issue that requires interventions directed more broadly across family units; it is increasingly important to evaluate these interventions and find the best ways to serve children within their family system.

Acknowledgement

The author would like to acknowledge the tremendous contributions of Karen Thomas, Edward Cohen, Bill Dawson, and Alan Brookhart to this article. In addition, this article could not have been completed without the work of the entire California Waiver Demonstration Project Team and the involvement and support of the staff in Fresno and Riverside Counties.

References


