

# Family-Centered Intervention with Families Experiencing Multiple Risk Factors

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## Introduction

The United States Department of Health and Human Services reports that 20% of children have diagnosable disorders and even higher numbers of children are at risk for developmental delays (cited in Sameroff & Fiese, 2000). Thus, it is critical that researchers investigate the potential negative outcomes facing these children and seek potential interventions to promote resilience (Masten, 2001). Furthermore, as federal laws such as Part C of the Individuals with Disabilities Education Act mandate family-centered interventions for infants and young children, it is important for researchers to review and extend the literature concerning children's developmental outcomes and effective intervention programs in order to best inform such social policies.

Research on family-centered intervention programs suggests that Individualized Family Service Plan (IFSP) goals are still predominantly child-focused and not family-focused (McWilliam, et al., 1998). Further, when four different intervention programs were compared, the best predictor of positive outcomes was change in parent-child interactions. This change was not found in the family-centered program, despite its alleged family focus (Mahoney, et al., 1998). In spite of the growing research suggesting increased vulnerability for children and families experiencing multiple-risk circumstances, there is little research documenting the impact of family-centered intervention for these families.

The current study examined the perspectives of families who were involved in a Birth-to-Three family-centered program for one year and compared them with a larger county sample.

Figure 1: Hypothesized Moderator Model



## Research Questions and Hypotheses

### Qualitative Questions:

- What do parents feel are strengths and areas for improvement within the program?
- How do the emergent themes from the current sample compare to the larger State Department of Health and Family Services sample?
- What is the typical breakdown of goals (i.e., child, family, or resource) on Individualized Family Service Plans (IFSPs) in the current sample?

### Quantitative Questions and Hypotheses:

- Does the number of risk factors a family is experiencing predict family satisfaction with services?
  - It was predicted that as the number of family risk factors increases, the parents would report less overall satisfaction with the early intervention program.
- How do the number of risk factors and the proportion of family goals relate to family satisfaction?
  - It was predicted that as the proportion of family goals addressed in the child's IFSP increases, the negative impact of multiple risk factors on family satisfaction would decrease. In other words, proportion of family goals was expected to moderate, or buffer, the relation between cumulative family risks and family satisfaction with services.

## Method

### Current Sample

Data were collected from 17 of 65 eligible families participating in a Birth-to-Three family-centered early intervention program in the Midwest (26.15% response rate). Families were eligible to participate if:

- The family had a child with a diagnosed condition or a developmental delay of 25% in at least one of the following areas: cognitive, motor, communication, social-emotional, or adaptive/self-help.
- The child was eligible for a one-year re-evaluation between June of 2002 and February of 2003.

Families were mailed a packet, which included a consent form and the Family Impact Survey (FIS). The consent form gave the researcher permission to access the child's Birth-to-Three file.

### State Sample

The Department of Health and Family Services mailed out approximately 500 surveys to families who participate in the county's early intervention programs. Of the 500 surveys, 121 were returned (24.2 response rate). It was indicated that this low response rate was typical for state evaluation surveys of young children with special needs in urban areas.

## Description of Sample

Table 1: Demographic Characteristics of Current Sample

	Number	Percent
<b>Marital Status</b>		
Married	10	58.82%
Single Parent	6	35.29%
Divorced	1	5.88%
Legally Separated	0	0%
Widowed	0	0%
<b>Race/Ethnicity</b>		
European-American	15	88.24%
Latino	2	11.76%
African-American	0	0%
<b>Maternal Education*</b>		
High School Education or Higher	12	70.59%
Did not graduate from high school	2	11.76%
<b>Parental Occupation*</b>		
Employed, Skilled Workers	12	70.59%
Unemployed/Workers	3	17.65%
<b>Public Assistance</b>		
Receiving some type of assistance	8	47.06%
Not receiving any assistance	9	52.94%

Table 2: Child Characteristics in Current Sample

Gender	Males = 14 (82.35%)	Females = 3 (17.65%)
<b>Age</b>	13-40 months (M = 28 months, SD = 8.64)	
<b>Diagnosed Condition</b>	7 participants (41%) had a medical diagnosis	
	Perinatal Developmental Disorder (PDD-NOS)	1 (5.88%)
	Down Syndrome	1 (5.88%)
	Cerebral Palsy	1 (5.88%)
	Hearing Impairment	1 (5.88%)
	Mental Retardation/Brain Anomaly	1 (5.88%)
	Peri-ventricular Leukomalacia	1 (5.88%)
	Seizure Disorder/Seizures	1 (5.88%)
<b>Birth Complications</b>	10 participants (58.82%) experienced one or more birth complications	
	Inhaled	1 (5.88%)
	Transfusion at birth	1 (5.88%)
	Seizures at birth	1 (5.88%)
	Hospitalizations of more than one week	4 (23.53%)
	Pretermity	4 (23.53%)

Note: Percentages for birth complications add to more than 58.82%, since some children experienced more than one birth complication. Some data on the type of specific birth complications were missing for 4 participants.

## Measures

### Qualitative Component

Family responses to open-ended questions on the FIS were analyzed in order to identify underlying themes related to positive aspects of the program as well as what might be changed. The questions analyzed were "One thing that could be improved about the Birth to 3 Program is..." and "The best part about the Birth to 3 Program for my child and family was..."

### Cumulative Risk Index

Based on information obtained from the child's intake form in the Birth-to-Three file, one point was given for each of the following: currently single, less than a high school education, receiving public assistance, 4 or more children, currently not working, non-European American, child with a medical diagnosis, and birth complications. Risk scores could range from 0-8. In the current study, scores ranged from 1-5, with a mean of 2.29 (SD = 1.31).

### Proportion of Family Goals

Based on the work of Rosenkoetter and Squires (1998), goals were classified according to whether they were child-, family-, or resource-focused. The number of family goals were counted and divided by the total number of IFSP goals. The mean proportion of family-focused goals was .13 (SD = .17). Nine of the children did not have any family focused goals, 6 had one family-focused goal, and 2 had two family-focused goals.

### Family Satisfaction

Families were asked to complete the Family Impact Survey (FIS), which was created by the Wisconsin Early Intervention as a part of a statewide Birth-to-Three requirement to assess family satisfaction with early intervention services. Family overall satisfaction was calculated by summing family answers to 34 questions in the areas of Introduction to Birth-to-Three, Family Rights and Procedures, Evaluation, IFSP, and Child Services. Scores could range from 34 to 136, with higher scores indicating higher overall family satisfaction with early intervention. For the current study, Chronbach's alpha was .95 for overall family satisfaction score on the FIS. In the current study, actual scores ranged from 97 to 135, indicating a relatively high level of satisfaction. The mean score for family satisfaction was 93.88 (SD = 10.02).

## Results

In the tradition of grounded theory, data were grouped into categories. Thirty-eight initial codes were created and then grouped into 10 axial codes. In the analysis of these codes, 4 abstract categories emerged: (1) program characteristics that could be improved, (2) program characteristics viewed as strengths, (3) family-related comments, and (4) child-related comments emerged.

Table 3: Themes from the Qualitative Analysis of the Family Impact Survey Open-ended Questions (N = 17)

<b>1. Program Characteristics—Improvements</b>	
a. Nothing/Not Applicable (N = 6)	
b. More Information/Resources (e.g., cost-share, natural env., resources) (N = 6)	
c. Staffing Issues (e.g., not enough therapists, switching therapists) (N = 2)	
d. Shorter Delay in Beginning Services (N = 2)	
e. Other (N = 3)	
<b>2. Program Characteristics—Positive</b>	
a. Positive, Kind, Flexible Staff (N = 5)	
b. Access to Information (N = 2)	
<b>3. Family Related Comments</b>	
a. Services at Home/Convenience for Family (N = 4)	
<b>4. Child Related Comments</b>	
a. Child Received Needed Help/Goals Met (N = 4)	
b. Learned How to Help with Own Child's Development (N = 3)	

Note: \*Numbers add to more than 17 due to parents who provided answers that fit into more than one category.

In both the current and state sample, the same four abstract themes emerged. Table 4 presents a comparison between the qualitative findings in the current and state samples.

Abstract Themes Present in Both Studies	Number of Families Reporting	
	Current Study	State
<b>Program Characteristics—Improvements</b>		
Nothing/Not Applicable	6 (35.29%)	65 (53.72%)
More Information/Resources	6 (35.29%)	13 (10.74%)
Staffing Issues	2 (11.76%)	15 (12.4%)
Shorter Delay in Beginning Services	2 (11.76%)	7 (5.79%)
Other	3 (17.65%)	2 (1.65%)
<b>Program Characteristics—Positive</b>		
Positive, Kind, Flexible Staff	5 (29.41%)	52 (42.98%)
Access to Information	2 (11.76%)	8 (6.61%)
<b>Child Related Comments</b>		
Child Received Help Needed/Goals Met	4 (23.53%)	15 (12.4%)
Learned How to Help Own Child's Development	3 (17.65%)	12 (9.92%)
<b>Family Related Comments</b>		
Services at Home/Convenience for Family	4 (23.53%)	18 (14.88%)

Figure 2 summarizes the proportion of children experiencing each risk factor.

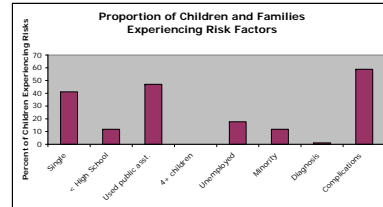
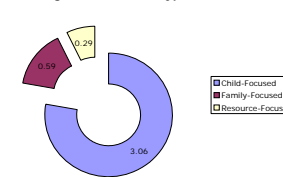


Figure 3 summarizes the means for different types of IFSP goals. Child-focused goals ranged from 2-6, family-focused goals ranged from 0-2, and resource-focused goals ranged from 0-1.

### Averages for Different Types of IFSP Goals



Contrary to expectations, the cumulative risk score was not significantly correlated with family satisfaction [ $r = -.10, p > .05$ ].

**Moderator Analysis.** Despite the low sample size, the second hypothesis was tested utilizing multiple regression analysis to determine whether any results were robust enough to be detected at a .40 power level. These results should be viewed as exploratory in nature. The model predicting family overall satisfaction with services was not significant,  $F(3, 13) = 0.13, p = .94$ , indicating that neither the cumulative risk index ( $B = 0.02, p = .95$ ), proportion of family-centered goals ( $B = 0.1, p = .86$ ), nor the interaction between these two variables ( $F = 0.08, p = .90$ ) significantly predicted overall family satisfaction, contrary to expectations.

Results from the regression analyses are presented in Table 5.

Variables	B	t	F
<b>Outcome: Overall Family Satisfaction</b>			
STEP 1: Cumulative risk index score	0.04	0.17	$F(2, 14) = 0.20$
Proportion of Family-focused Goals	0.16	0.611	
STEP 2: Cumulative risk index score	0.02	0.06	$F(2, 14) = 0.13$
Proportion of Family-focused Goals	0.1	0.18	
Cumulative risk index score * Proportion of Family-focused Goals	0.08	0.13	

## Conclusions

Families reported overall high satisfaction with the early intervention program. In both the current and state sample, the highest response group consisted of families who did not respond or stated that "nothing/not applicable" when asked to offer suggestions for change within the program. However, the qualitative component indicated that families desired access to more information and other resources as forms of support, both of which could be viewed as family-centered components.

The current study revealed that IFSP documents contained more child-focused goals than family- or resource-focused goals, which is consistent with previous literature (McWilliam et al., 1998), although contrary to expectations in programs that are explicitly family-centered. Family-focused goals comprised fewer than 20% of the total number of goals for most families. Nine of the children did not have any family-focused goals on their IFSP documents.

Staffing was viewed as both a positive and a negative within the early intervention program. Staffing was viewed as problematic when understaffing, tardiness to therapy sessions, and too many breaks without a substitute therapist occurred. However, the positive, fun, and flexible nature of individual therapists was viewed as the primary positive feature of the Birth-to-Three experience. Families also identified the ability of the program to help the children meet goals and the convenience of providing services within the home environment as strengths within the program.

According to parental responses, the first step toward a more family-focused intervention might include more information and resource-focused goals. By building on current staff strengths, service providers can better the quality of family-centered services by:

- Helping families reach out to their communities.
- Providing resources that expand families' abilities to help their children.
- Intervening within the natural environments above and beyond the therapy session each week.
- Working directly with families experiencing multiple risks in an effort to reduce communication barriers.

## References

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