

Chapter Two

Parent and Caregiver Issues

Symposium

Poverty Status and Custody: Associations with Children's Mental Health Outcomes

Symposium Introduction

Ann Webb Price

Over 11 million children live in poverty and are at a higher risk for mental illness than those who do not live in poverty. Black and Latino groups have the highest child poverty rates and hence are more vulnerable to mental illness than other groups. Not only are minority groups more vulnerable to mental illness but also are less likely to receive quality treatment for their mental illness (U.S. Department of Health and Human Services, 2001). Being poor and the disparity in the receipt of treatment may contribute to negative outcomes for minority children. This symposium examines factors related to minority and poverty status that may affect children's mental health outcomes. The first paper discusses the relationship between child strengths, family functioning, and family resources and how they affect children's mental health outcomes. The second paper examines the associations among family and child risk factors, access to resources (social and financial), caregiver strain, and family functioning. The third paper looks at the effects of low-income status and receipt of public assistance on children's mental health. The last paper in this symposium looks at differences in caregiver strain among three caregiver types (single mother caregivers, grandparent as caregivers, and two-parent families) and the influence of family resources and functioning on caregiver strain.

The four papers in this symposium address the adequacy of family resources, welfare receipt, referral sources and risk factors among children with serious emotional disorders, and how these issues are linked to child outcomes such as delinquency, child strengths, and levels of restriction of care and service utilization. Policy implications for researchers, mental health providers and educators are discussed.

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Family Resources and Children's Strengths: Do Families Matter?

Ann Webb Price, Phyllis Gyamfi, Andrew Pope, & Tracey Lockaby

Introduction

Research indicates that children raised within low-income environments are more likely than their more economically advantaged counterparts to suffer adverse consequences. For example, low-income children are more likely than their disadvantaged peers to experience chronic health problems, often as a consequence of low birth weight (Brooks-Gunn & Duncan, 1997a). As a result, these children are at increased risk for both physical and learning disabilities that may persist through childhood and adolescence (Brooks-Gunn & Duncan, 1997a,b). Furthermore, poor children are at higher risk for psychological problems including internalizing problems such as depression, and externalizing problems such as aggression (Duncan, Brooks-Gunn, & Klebanov, 1994).

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Family variables may account for some of the negative effects of poverty on child outcomes. Research has consistently demonstrated an association between family functioning and child functioning (Forehand, et. al., 1991; Gorman-Smith, Tolan, Zelli, & Huesmann, 1996; Lamborn, Dornbusch, & Steinberg, 1996; Masten, Best & Garmezy, 1990; Masten & Coatsworth, 1998; Wyman, Cowen, Work, & Parker, 1991). For example, family functioning has been associated with both internalizing and externalizing behavior problems (Gorman-Smith et. al., 1996; Neighbors, Forehand, & McVican, 1993).

However, there is a paucity of research examining family variables in the context of impoverished environments. This is a critical research question, given that family factors can have different meanings as a function of the family's environmental context (Baldwin, Baldwin & Cole, 1990). Recent research suggests that how poverty affects children is mediated by variables outside of themselves. For example, the effects of poverty may be explained through parental psychological functioning and parenting practices (Jackson, Brooks-Gunn, Huang, & Glassman, 2000; McLoyd, 1998).

This study is grounded within an ecological perspective. Building on Bronfenbrenner's work (1989; 1986), Cicchetti and Lynch (1993) proposed a model to conceptualize the ecological processes that affect child development. This model focuses on the varying circles of influence including more distal systems such as the larger cultural system, and more proximal systems of influence such as the immediate family environment.

Additionally, the current study uses a risk and resiliency framework (Garmezy, 1985). Garmezy identified three pathways that affect child and adolescent outcomes across resiliency studies. These pathways include: (a) temperament factors related to the child, (b) families marked by warmth and cohesion, and (c) the presence of external support from a caring adult or institutional support from a school or church.

Both the ecological model and the resiliency model view child outcomes from a strengths perspective rather than a deficit perspective. Child strengths have been recognized as an important variable in making clinical assessments, have been associated with psychological symptoms, decisions about child placement, and intensity of services (Oswald, Cohen, Best, Jensen, & Lyons, 2001). Additionally, child strengths have been associated with length of residential treatment, reduction of risk behavior, and good dispositional outcomes (Lyons, Uziel-Miller, Reyes, & Sokol, 2000).

Researchers interested in mediating or moderating processes have thus far focused mainly on ontogenic variables. For example, researchers have examined the effect of person-level variables such as age, economic status, and IQ, (Luthar, 1991; Luthar & Ziglar, 1991) on child psychological outcomes. Other researchers have focused on microsystem variables such as maternal education, maternal stress, absence of fathers in the home, and parental monitoring as mediators or moderators of child outcomes (McCloskey, Figuerdo, & Koss, 1995; Patterson, 1993; Sullivan et al., 1997). Less is known about how family process variables mediate or moderate child outcomes, in particular, how family variables contribute to child strengths.

This study will focus on the mediating role of family functioning. Mediators are variables that affect the association between two other variables. They can be thought of as answering the question: "How does one variable explain the association between two other variables?" The mediator may account for all, or some of the association between a predictor and an outcome variable. Informed by the literature on poverty, family functioning, and resiliency, this paper will examine whether family functioning mediates the relation between family resources and child strengths.

Method

Participants

Participants were drawn from youth and families who participated in the National Evaluation of the Comprehensive Community Mental Health Services for Children and Their Families Program funded by the Center for Mental Health Services at the Substance Abuse and Mental Health Services Administration (SAMHSA). Children participating in this evaluation are receiving services for serious emotional disturbance in communities that have received grant funds to establish a system of care for service delivery. To participate in the evaluation, children must be 5 to 17.5 years of age at the time of entry into services, must not have a sibling in the evaluation. The child's caregiver must also give consent to their own and their child's (for children age 11 years or older) participation.

Sample

Participants ($N = 1534$) in this study were drawn from evaluation data from communities awarded grants in 1997 and 1998. This analysis included cases with complete data on all of the study variables (gender, age, poverty, child functioning, family functioning, child strengths, and family resources). Children's mean age was 12.20 ($SD = 4.11$). Sixty-nine percent of the children were boys. The majority of participants were White (61%), with 16% African American, and 23% other. Twelve percent were Hispanic. About 50% of households had incomes at or below the poverty level.

Measures

Descriptive information collected included child's gender, age, race, family, and income. Specific child and family outcome variables used in this study are presented below.

Child Functioning. The Child and Adolescent Functional Assessment Scale (CAFAS; Hodges, 1999) is designed to assess the level of functioning across three role performance domains (home, school, and community), two mood domains (moods/emotions and self-harm), and behavior towards others, substance use, and thinking. The CAFAS measures the extent to which children's mental health or substance abuse is disruptive to their functioning in each domain.

Family Functioning. The Family Assessment Device (FAD; Epstein, Baldwin, and Bishop, 1983) measures family functioning based on six dimensions of the McMaster Model of Family Functioning: problem solving, communication, roles, affective responsiveness, affective involvement, behavior control, and general functioning.

Child Strengths. The Behavioral and Emotional Rating Scale (BERS; Epstein, 1999) identifies the emotional and behavioral strengths of children. The BERS is also used to identify children with limited strengths in order to target goals for a treatment plan or to identify strengths and weaknesses for intervention.

Family Resources. The Family Resource Scale (FRS, Dunst & Leet, 1987) is a caregiver report assessing the adequacy of a family's access to cash and recreation, time and social support, basic needs, healthcare/social services, quality of life needs, and childcare resources in the past six months.

Results

Baron and Kenny's (1986) criteria for testing mediation were used to determine whether family functioning mediated the relationship between family resources and child strengths. Table 1 shows the results of the mediating model. In the current analysis gender, age, poverty, and child functioning at Time 1 were entered as covariates in the first step of the regression analysis. The proposed mediator, family functioning, was regressed on the independent variable, family resources, and was significant ($\beta = .35, p < .001$). Next the dependent variable, child strengths, was regressed on the independent variable, average family resources ($\beta = .12, p < .001$), resulting in a significant association (see Figure 1).

Table 1
Associations between Resources, Family Functioning, and Child Strengths

	<i>B</i>	<i>R</i> ²
Step 1		
Age	.05*	
Sex	-.02	
Poverty	.23***	
Child Functioning at Time 1 on Family Resources	-.15***	.07
Step 2		
Family Functioning Regressed on Family Resources	.35***	.19
Step 3		
Child Strengths Regressed on Family Resources	.12***	.26
Step 4		
Child Strengths regressed on Family Functioning	.33***	
Family Resources	.00	.34

p* < .05, **p* < .001.

Figure 1
The Direct Effects of Resources on Child Strengths and Family Functioning

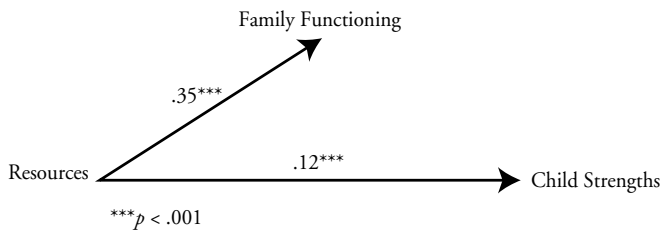
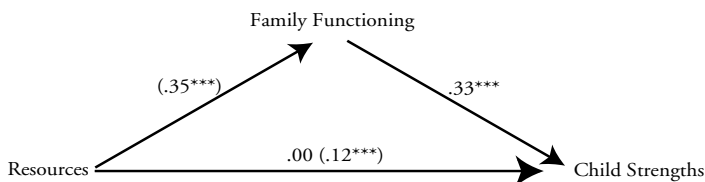


Figure 2
The Mediating Effects of Family Functioning on the Relationship between Family Resources and Child Strengths



Note: Betas in parentheses are the standardized betas for the direct effects.
 ****p* < .001

Finally, child strengths were regressed on both family functioning and family resources. Once the mediator was entered into the regression equation, the previous significant relation between family resources and child strength was no longer significant indicating that family functioning mediated the relation between family resources and child strengths (see Figure 2).

Discussion

Results from this study suggest that the association between access to resources and child strengths is not solely a direct path. This study demonstrates that family functioning plays an important role in the development of child strengths, and that this may be a far more important relationship than the association between access to resources and child strengths alone.

This study adds to the body of research that suggests that more distal social and economic structures are not necessarily directly related to children's development but, rather, are mediated through more proximal environmental structures that define children's every day experiences (Bronfenbrenner, 1986; 1989; DeLongis, Coyne, Dakof, Folkman, & Lazarus, 1982). For example, Felner, Brand, DuBois, & Adan (1995) found that proximal environmental factors, such as family and school climate, were significant predictors of adolescent adjustment and that conditions of disadvantage were no longer significant once their association with these proximal environmental conditions were isolated. Previously, Rutter (1979) found that children's socioemotional functioning was mediated by proximal variables such as parental psychological functioning and level of distress.

These findings have important implications for researchers, service providers and families. Researchers need to examine more specifically how family functioning promotes children's strengths. For example, what are the particular characteristics of families that are positively correlated with improved child outcomes? Service providers can then design and target services that increase these aspects of family functioning. Finally, families need to recognize and value the critical role they play in shaping their children's strengths.

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The Effects of Low-income Status on Children's Emotional and Behavioral Problems: Implications for Welfare Reform

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Introduction

It has been well documented that children from low-income families are more likely to suffer from chronic illnesses, mental problems and disabilities than their affluent counterparts (Brooks-Gunn & Duncan, 1997; Klebanov, Brooks-Gunn, & Duncan, 1994). Poor children are not only at risk for mental health problems, but other problems such as low birth weight, neighborhood poverty, and a poor home environment. As a result of poor prenatal care and lack of appropriate resources, many poor children are born weighing 2,500 grams or less. Low birth weight is a major factor of infant mortality in the first year of life. Numerous studies have shown that poor children are less likely to have a regular source of medical care or to receive preventive health care. Studies also reveal that these problems are more predominant among children suffering from hunger than among low-income children in general (Ober, Bryant, & Bach, 1995).

Impact of Welfare Reform on Children's Mental Health

The federal welfare legislation known as the Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (PRWORA), is the most significant change in welfare policy the United States has undertaken in decades, due to the fact that it ended the federal guarantee of cash assistance to needy families. Although several studies have been conducted on the impact of the change in legislation for welfare families in general, researchers are just beginning to examine what this change means to poor families raising children with emotional and behavioral disorders (Acs & Loprest, 1994; Aron, Loprest, & Steurele, 1996; Garrett & Holahan, 2000; Meyers, Lukemeyer & Smeeding, 1997).

Certain aspects of the new legislation may have a significant effect on these families. First, financial assistance (Temporary Assistance to Needy Families; TANF) is provided with the condition that recipients must find work and be subjected to a 5-year lifetime limit on receiving such a benefit. Under the previous legislation, parents caring for children with emotional and behavioral disorders were exempt from work requirements. Although families falling under this category can still apply for a hardship exemption, many supportive services that TANF families typically receive would not be available to those who apply for the exemption. This work requirement may be difficult to attain, since caring for children with disabilities may be so burdensome that finding and maintaining employment may be difficult for these parents.

Second, the federal entitlement to child care assistance is no longer available. Finding appropriate and affordable child care for welfare recipients is difficult for most families. Placements for children with emotional and behavioral problems become even more difficult. Although most states do not sanction parents who cannot find child care, they are still subjected to a 5-year time limit for benefits even though they are unable to work.

Third, the eligibility requirements to participate in Supplemental Security Income (SSI) have been changed. The changes in the legislation significantly reduce eligibility for children with mental health needs, as children must show a higher level of severity to qualify. Under the new law, “maladaptive behavior,” considered to be in realm of personal or behavioral, is removed from the list of medical impairments, though this type of behavior can still be considered as a possible impairment.

Lastly, Medicaid participation is not contingent upon receipt of financial assistance. Families can now receive Medicaid assistance without receiving TANF assistance. As a result of expansion efforts and broader eligibility, participation in Medicaid should increase. However, there has been a drop in Medicaid enrollment, which is primarily due to declines in welfare caseloads. Many families caring for children with serious emotional disturbance rely on Medicaid for treatment services. Thus, states must provide greater flexibility to ensure ongoing eligibility.

The purpose of this paper is to determine the interplay between poverty level, family resources, caregiver strain, welfare receipt and child behavioral outcomes among children with special needs. Using a sample of 440 children with serious emotional disturbances, correlates of the Child Behavior Checklist (CBCL; Achenbach, 1991) and the Child and Adolescent Functional Assessment Scale (CAFAS; Hodges, 1999) were determined via regression analysis. Implications for welfare reform are discussed.

Method

Participants

Data were obtained from the child and family outcome study component of the national evaluation of the Comprehensive Community Mental Health Services for Children and Their Families Program. This component of the national evaluation examines the effects of the system of care upon child clinical and functional status and family life. The sample for the present study includes those children who had complete baseline data for each of the variables examined ($N = 440$). The sample was predominantly male (69%), with a mean age of 12.05 ($SD = 3.53$). In terms of racial/ethnic representation, white, non-Hispanic children accounted for half of the sample (50%) followed by Black (32%), Hispanic (10%) and other (8%). Nearly two-thirds (65%) of the families included in the sample reported annual incomes at or below the poverty level. When looking at financial assistance, 69% of the families received Medicaid, while 23% received SSI and 15% received TANF.

Instruments and Procedures

To examine the impact of low-income status and receipt of public assistance on children’s mental health outcomes, two clinical variables were examined: functional impairment and emotional and behavioral problems. As participants in the national evaluation, all youth in the sample had been administered the Child CBCL, and the CAFAS, within 30 days of enrollment into the system of care. The CBCL is a standardized caregiver report measure that assesses clinical symptomatology and behavioral competence of children 4 to 18 years of age. The overall total problem raw score and the two broad band raw scores (internalizing and externalizing) were examined in the present study. The CAFAS, a standardized measure of functional impairment, assesses the degree to which problem behaviors and symptoms disrupt functioning in everyday life. The CAFAS consists of 10 sub-scales, each corresponding to a specific psychosocial domain. For the purposes of the present study, functional impairment was operationalized as the total CAFAS raw score across all eight domains.

Other instruments used were the Family Resource Scale (FRS, Dunst & Leet, 1987), and the Caregiver Strain Questionnaire (CGSQ, Brannan, Heflinger, & Bickman, 1998). The FRS is a caregiver report assessing the adequacy of resources (e.g., food, shelter, income, etc.) available to the family in the past six months. The CGSQ assesses the extent to which caregivers are affected by the special demands associated with caring for a child with severe emotional or behavioral disorders. The sum of the mean scores of the three CGSQ subscales (internalized-subjective strain, externalized-subjective strain, and objective strain) was used in this analysis.

Results

Preliminary Analysis

An independent *t*-test analysis was conducted to determine whether differences occurred among those receiving welfare benefits and those not receiving benefits. The results indicated that families receiving TANF, SSI and Medicaid were more likely to have caregivers who attained less education, did not have a caregiver or adult employed outside the home, and were more likely to be living below the poverty level than those not receiving these benefits. Additionally, families receiving SSI and Medicaid were also more likely to have fewer family resources, and families receiving Medicaid were more likely to be living in a single parent household. No differences were found with respect to caregiver strain and family history of mental illness, suggesting that regardless of receipt of public assistance, families were suffering the same caregiver strain and had the same history of family mental illness. The results are presented in Table 1.

Table 1
Child and Family Differences Between Those Receiving Welfare Benefits and Those Not Receiving Benefits

Child Variables	TANF Receipt			SSI Receipt			Medicaid Receipt		
	YES (<i>n</i> = 68)	NO (<i>n</i> = 380)	Sig	YES (<i>n</i> = 117)	NO (<i>n</i> = 330)	Sig	YES (<i>n</i> = 331)	NO (<i>n</i> = 152)	Sig
School Performance	1.69 (1.01)	1.80 (1.05)		1.92 (.97)	1.73 (1.06)		1.86 (1.00)	1.64 (1.07)	
Internalizing (CBCL)	67.09 (8.85)	66.11 (10.78)		68.53 (11.20)	65.07 (10.30)	**	66.24 (10.82)	65.47 (10.37)	
Externalizing (CBCL)	70.90 (10.38)	70.18 (10.85)		71.40 (10.76)	69.44 (10.96)		70.28 (11.17)	69.07 (10.14)	
Total Behavior (CBCL)	72.00 (8.24)	71.63 (9.65)		73.86 (9.75)	70.54 (9.44)	**	71.53 (9.81)	71.10 (8.98)	
Total CAFAS	119.56 (46.63)	116.92 (47.10)		128.38 (45.10)	113.12 (47.67)	**	118.39 (48.01)	114.21 (45.14)	
Caregiver Variables	(<i>n</i> = 79)	(<i>n</i> = 421)		(<i>n</i> = 124)	(<i>n</i> = 369)		(<i>n</i> = 339)	(<i>n</i> = 167)	
Education	.94 (.92)	1.37 (.98)	***	.94 (1.01)	1.43 (.95)	***	1.15 (.96)	1.63 (.97)	***
Caregiver strain	2.93 (.89)	3.10 (.90)		3.10 (.85)	3.06 (.92)		3.02 (.92)	3.14 (.86)	
Family Variables	(<i>n</i> = 15)	(<i>n</i> = 93)		(<i>n</i> = 17)	(<i>n</i> = 89)		(<i>n</i> = 53)	(<i>n</i> = 55)	
Household employment	1.40 (.51)	1.85 (.36)	**	1.35 (.49)	1.85 (.56)	**	1.60 (.49)	1.93 (.26)	***
Single parent household	.40 (.51)	.49 (.50)		.47 (.51)	.47 (.50)		.28 (.45)	.65 (.48)	***
History mental illness	1.60 (.51)	1.57 (.49)		1.71 (.47)	1.56 (.50)		1.68 (.47)	1.49 (.51)	
Economic Variables	(<i>n</i> = 70)	(<i>n</i> = 391)		(<i>n</i> = 112)	(<i>n</i> = 338)		(<i>n</i> = 309)	(<i>n</i> = 153)	
Poverty level	.37 (.73)	.97 (.89)	***	.56 (.76)	.97 (.92)	***	.63 (.83)	1.35 (.85)	***
Family resources	3.31 (.63)	3.50 (.70)		3.26 (.66)	3.53 (.70)	***	3.37 (.69)	3.63 (.66)	***

Note. Means reported with standard deviation in parenthesis. School performance coded as 0=failing to 3=above average. Higher CBCL and CAFAS scores indicate more emotional/behavioral problems and functional impairment respectively. Caregiver education coded as 0=grade school to 3=college degree. Household employment refers to caregiver or adult working outside the home and coded 1=no; 2=yes. Single parent household coded as 0=single parent; 1=two parent. History of family mental illness coded as 1=yes; 2=no. Poverty level coded as 0=below poverty; 1=at poverty; 2=above poverty. Higher family resources scores indicate more resources available to the family. Sig= ***p*<.01; ****p*<.001.

Not surprisingly, in terms of child outcomes families receiving SSI tended to have children who had more symptoms of emotional and behavioral problems and functional impairment than those not receiving SSI, as indicated by the higher CBCL and CAFAS scores. However, no differences were found between those receiving TANF and Medicaid benefits and those not receiving these benefits. Thus, for this population, the preliminary analysis indicates that welfare receipt in and of itself may not be associated with negative child outcomes. Given these results, the following regression analysis was conducted to determine the correlates of the CBCL and CAFAS while controlling for child and family demographics. Since only 15% of the samples are participating in TANF, and TANF receipt was not associated with child outcomes, it was dropped from the analyses.

Child Behavior Checklist (CBCL)

A hierarchical regression analysis tested the effects of poverty level, family resources, SSI receipt, Medicaid receipt and caregiver strain on children's internalizing behavior, externalizing behavior and total CBCL score. An interaction term (caregiver strain x family resources) was added to the equation to determine whether a mediating effect among the variables existed. The analysis controlled for child's gender, child's age, child's race and caregiver education. The results, presented in Table 2, indicated that family resources, SSI receipt and caregiver strain were associated with symptoms of internalizing behavior, suggesting that families having fewer resources, receiving SSI and reporting more strain, were more likely to have children who show more symptoms of withdrawal, depression and isolation. Additionally, symptoms of externalizing behavior were associated with parents reporting more strain. Total problem behavior (total CBCL) was associated with receiving SSI and parents reporting more caregiver strain. The findings strongly indicate that children with greater emotional and behavioral problems have caregivers who are experiencing more stress in their lives. Furthermore, families receiving SSI are more likely to have children who exhibit more emotional and behavioral problems, particularly those with more symptoms of depression and withdrawal. The interaction between caregiver strain and family resources yielded a non-significant result.

Child and Adolescent Functional Assessment Scale (CAFAS)

A second hierarchical regression analysis tested the same effects as with the CBCL on children's functional impairment and controlled for the same variables. The interaction term (caregiver strain x family resources) was also added to the equation to determine whether a mediating effect among the variables existed. The results, presented in Table 2 indicated that higher CAFAS scores (more functional impairment) were associated with receiving Medicaid and caregivers reporting more strain. Like the CBCL results, children with greater functional impairment tended to have parents who reported more strain. Contrary to the CBCL results, functional impairment was associated with Medicaid receipt, and not SSI receipt. This finding suggests that medical assistance benefits may not be sufficient for families with a child who has functional limitations, particularly since there are currently more stringent requirements for SSI eligibility. The interaction term yielded a non-significant result.

Discussion

There are increased hardships associated with caring for a child with severe emotional disturbances, particularly when families are poor. Three main findings were evident. First, while welfare receipt was associated with poverty level where those receiving public assistance were more likely to live below the poverty level, for this population poverty level per se was not associated with negative child outcomes. However, having adequate resources such as enough clothes for the family, adequate housing, time for rest and relaxation or dependable transportation seemed to matter more. The findings indicate that having fewer resources was associated with children's internalizing behavioral problems.

Table 2
The Association Between Children's Emotional/Behavioral
and Functional Impairment Outcomes and Child and Family Characteristics

	<i>Children's Emotional and Behavioral Outcomes – CBCL</i> (<i>N=440</i>)			<i>Functional</i> <i>Impairment</i>
	<i>Internalizing</i> <i>Behavior</i>	<i>Externalizing</i> <i>Behavior</i>	<i>Total Problem</i> <i>Behavior</i>	<i>CAFAS</i> (<i>N=417</i>)
Child's Gender	-1.33 (1.04) [-.06]	2.17* (.94) [.90]	.85 (.86) [.04]	-4.28 (4.46) [-.04]
Child's Age	.12 (.14) [.04]	-.28* (.13) [-.08]	-.00 (.12) [-.03]	.87 (.62) [.06]
Caregiver Education	-1.01* (.50) [-.09]	-1.38** (.46) [-.13]	-1.03* (.42) [-.10]	-4.44* (2.15) [-.09]
Child's Race	.00 (.03) [.04]	-.00 (.03) [-.04]	.00 (.02) [.01]	.12 (.12) [.04]
Poverty Level	-.00 (.58) [-.01]	-.67 (.53) [-.06]	-.00 (.48) [-.01]	-2.54 (2.53) [-.05]
Family Resources	-2.10** (.74) [-.13]	.83 (.67) [.05]	-.60 (.61) [-.04]	4.24 (3.15) [.06]
SSI Receipt	2.62* (1.13) [.10]	.63 (1.03) [.03]	2.41* (.94) [.11]	6.15 (4.86) [.06]
Medicaid	.23 (1.10) [.01]	1.43 (.99) [.06]	.53 (.91) [.03]	9.94* (4.81) [.10]
Caregiver Strain	4.80*** (.54) [.40]	7.10*** (.50) [.61]	5.99*** (.45) [.56]	28.87*** (2.35) [.55]
Caregiver Strain X Family Resources	-.62 (.69) [-.04]	.14 (.63) [.01]	-.41 (.57) [-.03]	2.18 (2.93) [.03]
<i>F</i>	14.20***	24.42***	23.40***	17.97***
Adj <i>R</i> ²	.23	.35	.34	.29

Note: Unstandardized coefficients with standard error in parentheses and standardized coefficients in brackets.
 Significance= +*p*< .10; **p*< .05; ***p*< .01; ****p*< .001.

Second, the findings suggest that caregivers are reporting more stress in their lives. The added financial and emotional burden of caring for a child with emotional and behavioral problems took its toll on caregivers. Reports of more symptoms of emotional and behavioral problems and higher levels of functional impairment were associated with reports of more caregiver strain. The findings suggest that more needs to be done in terms of supportive services for families with an exceptional child, particularly in areas such as a more flexible work environment, access to specialized child care, access to ongoing health and mental health coverage, and necessary services to improve health.

Lastly, receiving Medicaid was associated with more functional impairment, suggesting that medical assistance benefits may not be sufficient for families who have children with disabilities. The eligibility criteria for SSI have become more stringent due to welfare reform. A higher level of mental health severity is now required to qualify, increasing the chances for low participation. In contrast, Medicaid participation does not require proof of disability, thus allowing more people access to services. Furthermore, it has been well documented that as welfare caseloads decline so does enrollment in Medicaid. Although efforts to expand Medicaid are evident, many people are losing health insurance because recipients are not aware that they maintain eligibility even after they have left welfare. Nevertheless, because of the strict rules for SSI eligibility, families previously eligible can no longer receive SSI. States and policymakers need to do more to ensure ongoing Medicaid eligibility, especially since SSI eligibility is harder to attain, or they need to expand SSI eligibility for this population.

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The Moderating Effects of Resources and Risk Factors on Families Caring for Children with Serious Emotional Disturbance

Ann Webb Price, & Rachel Askew

Introduction

Sustained caregiver and family well being is essential to the continuation of families providing care and to good clinical outcomes for children with serious emotional disturbance (Emslie, Rush, Weinberg, Kowatch, & Carmody, 1998; Goodyer, Herbert, Scher, & Pearson, 1997). Yet it has long been established that caring for someone with a mental disorder causes strain on the caregiver and on family functioning as a whole (see, for example, Biegel, Sales, & Schulz, 1991). An important task for researchers, then, and the purpose of this study, is to identify what factors play a role in determining caregiver strain and overall family functioning.

A number of studies have documented the relationship between resources such as time, money and friend and family networks and caregiver burden and family functioning (Agosta, 1989; Biegel, Milligan, Putnam, & Song, 1994). Many other studies have demonstrated the relationship between risk factors such as family violence or neglect and the development of a behavioral or mental disorder (Frick, 1994; Loeber & Stouthamer-Loeber, 1986). However, youth who have experienced multiple adverse life events exhibit greater resilience when they have a higher I.Q., better family functioning, and more direct parental monitoring (Tiet, et al., 1998).

Work in the field of developmental psychopathology, influenced by the ecological models of Bronfenbrenner (1989, 1986) and others, suggests that the family plays an immediate and proximal role in determining child outcomes. Therefore, this paper focuses on caregiver strain and family functioning as the outcome variables of interest. Specifically, we ask: what is the association between risk factors and resources on caregiver burden, and between risk factors and resources on overall family functioning?

Methods

Participants

Participants were drawn from youth and families who participated in the national evaluation of the Comprehensive Community Mental Health Service for Children and Their Families Program, funded through the Substance Abuse and Mental Health Services Administration (SAMHSA), in the 23 grant communities awarded grants in 1997 and 1998. To participate in the evaluation, children must be 5 to 17.5 years of age at the time of entry into services, must not have a sibling in the evaluation, and must have a caregiver consent to both the caregiver's and the child's participation.

Sample

The sample of caregivers used in this study ($N = 1,855$) included cases with complete baseline data on all of the study variables (age, sex, child risk factors, family risk factors, family resources, caregiver strain and family functioning). About 50% of caregivers had household incomes at or below \$15,000 per year. The mean age of the children was 11.7 years ($SD = 4.11$); the majority of the children were boys (69%), and White (66.8%).

Measures

Total Family and Child Risk. Family risk factors were assessed by asking caregivers to report family history of domestic violence, mental illness, psychiatric hospitalization, criminal conviction, substance abuse, and substance abuse treatment. Child risk was assessed by asking caregivers whether or not the child had a previous psychiatric hospitalization, whether he/she had been physically or sexually abused,

whether the child had ever run away, attempted suicide, had a history of substance abuse, or had been sexually abusive to others. For this analysis, total risk was the total number of family and child risk factors reported by caregivers. Total risk ranged from zero to 13 risk factors. The mean number of total risk factors was 4.3 ($SD = 2.6$).

Family Resources. The *Family Resource Scale* (FRS; Dunst & Leet, 1987) is a 30-item measure that assesses the caregiver's perception of adequacy of resources (e.g., food, shelter, money, time, etc.). Responses range from *Not at all adequate*, 1, to *Almost always adequate*, 5. Average family resources, the mean of all items asked on the FRS, was used in this analysis. The mean score for average family resources was 3.6 ($SD = .68$).

Caregiver Strain. The *Caregiver Strain Questionnaire* (CGSQ; Brannan, Heflinger, & Bickman, 1998) assesses the extent to which caregivers are adversely affected by the special demands associated with caring for a child with a severe emotional or behavioral disorder. Responses to the CGSQ range from *Not at all affected*, 1, to *Very much affected*, 5. Average strain, the mean of all items asked on the CGSQ, was used in this analysis. The mean score for average strain was 2.96 ($SD = .92$).

Family Functioning. The *Family Assessment Device* (FAD, Epstein, Baldwin, & Bishop, 1983) measures family functioning based on six dimensions of the McMaster Model of Family Functioning (problem solving, communication, roles, affective responsiveness, affective involvement, behavior control, and general functioning). The FAD was measured on a 4-point scale with responses ranging from *Strongly disagree*, 1, to *Strongly agree*, 4, indicating the degree to which the caregiver feels the statement describes his or her family. Higher scores indicate more adaptive functioning. Average family functioning, the mean of caregivers' responses across all items, was used in this analysis. The mean score for average family functioning was 2.8 ($SD = .35$).

Results

Data analytic strategy. Hierarchical regression analysis was used to test the effects of family and child risk and resources on caregiver strain and family functioning. Age and sex were entered as covariates in the first step. Total risk (the number of family and child risk factors) was entered in the next step. Average family resources was entered in the third step of the regression equation. The interaction between total risk and resources was entered in the last step. This model was used to predict caregiver strain and family functioning in separate regression equations.

Significant main effects. There was a significant main effect for total family and child risk factors on caregiver strain ($\beta = .36, p < .001$; see Table 1). Total number of risk factors was positively correlated with caregiver strain, such that more risk was associated with higher caregiver strain. There was also a significant main effect for resources on caregiver strain. Resources were negatively associated with caregiver strain ($\beta = -.52, p < .001$), such that lower adequacy of resources was associated with higher caregiver strain. There was no significant main effect for total child and family risk on family functioning. Resources were positively associated with family functioning ($\beta = .31, p < .001$).

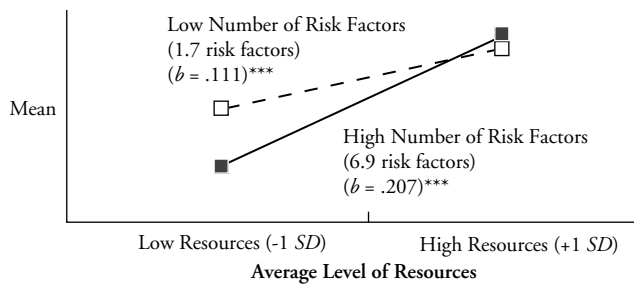
Significant interactions. There was no significant moderating effect for the interaction of total risk and resources on caregiver strain. There was, however, a significant moderating effect for total risk and resources ($\beta = .09, p < .001$) on family functioning. We plotted the interaction and tested the significance of level of resources on functioning for two groups: those with high risk (one standard deviation above the mean number of risk factors), and those with low risk (one standard deviation below the mean number of risk factors), based on the method described by Holmbeck (2002). Plotting the interaction revealed that family functioning was positively affected by higher access to resources, both for families with a high number of risk factors, and for families with a low number of risk factors. Thus, a greater adequacy of resources was associated with higher family functioning. However, the importance of resources was greatest for those families with more child and family risk factors (see Table 1 and Figure 1). Having adequate access to social, temporal and financial resources eliminated the negative impact that a high number of risk factors had on family functioning.

Table 1
Main and Interactive Effects (Betas) of Resources
and Total Child and Family Risk on Caregiver Strain and Family Functioning

Effect	Caregiver Strain		Family Functioning	
	β	ΔR^2	β	ΔR^2
Gender	-.023		-.04	
1. Age	.193***	.04***	.12***	.02***
2. Total Risk	.25***	.06***	.01	.00
3. Average Family Resources	-.314***	.10***	.31***	.10***
4. Risk X Resources	-.008	.01**	.09***	.01***
<i>F</i>	46.68***		50.09***	
Total R^2		.20		.12

Note: Table entries are final standardized regression coefficients.
 * $p < .05$, ** $p < .01$, *** $p < .001$.

Figure 1
Moderating Effects of Risk and Resources on Family Functioning



Note: b = Unstandardized regression coefficients, or simple slopes.
 *** $p < .001$

Discussion

This study examined the effects of cumulative risk factors and access to financial and social resources on two important variables related to family well-being: caregiver strain and family functioning. Both higher numbers of risk factors and lower-reported adequacy of resources were associated with increased caregiver strain. Additionally, lack of resources was negatively associated with family functioning. However, the effect of resources on family functioning was more pronounced for those families who experienced more risk factors than for those families who experienced fewer risk factors. Having greater access to resources “leveled the playing field” between families with high risk and families with low risk.

As this study suggests, more distal environmental forces, such as poverty and access to resources, influence the family, a more proximal influence on child development. This study underscores the importance of studying the family in a larger context in order to improve child outcomes.

A variety of resources (for example, tangible resources and social support) may contribute to better outcomes for low-income families caring for a child with severe emotional disturbance (Agosta, 1989; Biegel, et al., 1994). Additionally, families are able to make distinctions between types of resources and the adequacy of each (Herman & Thompson, 1995). Therefore, future research should identify the types of resources that contribute to better family outcomes. While systems of care attempt to bolster resources through services such as respite and family support, further research is also needed to determine which services are successful at raising the levels of various resources.

Additionally, research should continue to examine factors that mitigate the negative effects of caregiver strain for families with a child with a severe emotional or behavioral disorder. Finally, prevention and intervention professionals should focus their efforts on improving access to resources in order to relieve caregiver strain and encourage adaptive family functioning.

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Caregiver Strain Among Single Mother, Grandparent, and Two-Parent Caregivers

Bhuvana Sukumar, Brigitte Manteuffel, Robin Soler, & Gina Sgro

Introduction

In recent years there has been an increase in the number of children growing up in families that are headed by single mothers and grandparents. Households maintained by married couples make up 52% of all households nationwide (U.S. Census, 2000). Families headed by single mothers increased in number and proportion from 6.6% in 1990 to 7.2% in 2000, and the number of grandparents raising grandchildren more than doubled from 2.2 million in 1970 to 3.9 million in 1997 (American Association of Retired Persons, 2001). This increase in grandparent and single-mother caregivers raises a number of questions. As caregivers of children with severe emotional and behavioral problems, are single mothers and grandparents more susceptible to caregiver strain than caregivers in two-parent families? Are there differences in child strengths, family resources, family functioning, and child impairment between these three family types? What impact does family type have on caregiver strain? How do family functioning and family resources impact the influence of family type on caregiver strain?

Method

The sample for this study was a subset of children and their caregivers participating in the national evaluation of the Comprehensive Community Mental Health Services for Children and Their Families Program funded by the Center for Mental Health Services at the Substance Abuse and Mental Health Services Administration (SAMHSA). There were 1,286 children from two-parent ($n = 445$), single mother ($n = 729$), and grandparent ($n = 112$) caregiver families selected for this study. Children ranged in age from 5 to 18 years. The measures used were the Caregiver Strain Questionnaire (CGSQ; Brannan, Heflinger, & Bickman, 1998); the Child and Adolescent Functional Assessment Scale (CAFAS; Hodges, 1999); the Family Assessment Device (FAD; Epstein, Baldwin, & Bishop, 1983); the Family Resource Scale (FRS; Dunst & Leet, 1987); and the Behavioral and Emotional Rating Scale (BERS; Epstein & Sharma, 1998).

The three caregiver groups were compared on child strengths, child impairment, family resources, family functioning, and caregiver strain using analysis of variance. A zero order correlation was conducted for all variables entered into the models for regression analysis. Linear regression analyses were performed to examine the influence of family type on caregiver strain and to test the mediating effects of family functioning and resources on caregiver strain. The mediating effects of family functioning and resources were tested using the methods suggested by Baron & Kenny (1986).

Results

Children cared for by each type of caregiver did not differ in age, gender, ethnicity, referral source, or previous service use, however some differences were found in child and family risk factors, and diagnoses (see Tables 1 & 2). Children from grandparent caregiver families, $F(2, 1275) = 22.6$, $p < .01$, reported more child and family risk factors than the other two family types. The number of adults in the households of the three family types significantly differed, $F(2, 1257) = 7.19$, $p < .01$, with single-mother caregivers ($M = 1.53$, $SD = .72$) having the lowest number of adults in the household when compared to two-parent ($M = 2.18$, $SD = 4.67$) and grandparent ($M = 1.76$, $SD = .80$) caregivers. More children from two-parent families were diagnosed with autism, $\chi^2 = 6.84$, $df = 2$, $n = 943$, $p < .05$, and anxiety, $\chi^2 = 7.72$, $df = 2$, $n = 943$, $p < .05$. Children from single-mother families were diagnosed with adjustment disorder, $\chi^2 = 6.40$, $df = 2$, $n = 943$, $p < .05$, and post traumatic stress disorder, $\chi^2 = 6.59$, $df = 2$, $n = 943$, $p < .05$, at a higher rate than children from other family types.

Families differed in income, with a greater percentage of single-mother caregiver families having incomes below the poverty level (\$15,000), $\chi^2 = 87.01$, $df = 2$, $n = 1222$, $p < .001$. The three types of families differed in reported family resources, $F(967, 2) = 6.48$, $p < .01$, with single mother caregivers ($M = 3.49$, $SD = .67$) reporting lower family resources than grandparent caregivers ($M = 3.67$, $SD = .67$), or two-parent caregivers ($M = 3.64$, $SD = .70$). Significant differences were found on internalized subjective strain, $F(952, 2) = 4.73$, $p < .01$, and externalized subjective strain, $F(952, 2) = 4.80$, $p < .01$, but not objective strain, $F(954, 2) = 2.52$, $p = .08$. Overall, single mother caregivers reported the most strain and grandparent caregivers reported the least strain. The three caregiver groups did not differ on child strengths, impairment, problem behaviors, or family functioning.

Table 1
Demographic Information

Characteristic	Single-parent families	Grandparent families	Two-parent families
Age	(<i>n</i> = 724) Mean=12.54	(<i>n</i> = 112) Mean=11.85	(<i>n</i> = 443) Mean=12.36
Gender	(<i>n</i> = 729)	(<i>n</i> = 112)	(<i>n</i> = 445)
Boys	69.3%	67%	71%
Girls	30.7%	33%	29%
Race	(<i>n</i> = 727)	(<i>n</i> = 115)	(<i>n</i> = 439)
Black	19.5%	10.8%	9.8%
White	63.2%	71.2%	71.3%
Hispanic	13.4%	8.5%	12.6%
Asian	0.7%	0.9%	0.7%
American Indian	11.5%	12.6%	14.4%
Other	9.5%	5.4%	8.6%
Poverty*	(<i>n</i> = 703)	(<i>n</i> = 107)	(<i>n</i> = 412)
Below Poverty level	59.7%	47.7%	30.8%
Above Poverty level	40.3%	52.3%	69.2%

* $p < .001$

Table 2
Comparison of Three Family Types

	Single Mother Family Type		Grandparent Family Type		Two-Parent Family Type	
	Mean	SD	Mean	SD	Mean	SD
Child Strength (BERS)	85.59	16.18	85.45	18.22	85.67	16.07
Functional Impairment (CAFAS)	101.13	45.69	99.19	46.44	99.53	47.74
Family Functioning (FAD)	2.78	.32	2.87	.37	2.79	.32
Family Resources (FRS)*	3.49	.67	3.67	.67	3.64	.70
Subjective Externalized Strain (CGSQ)*	2.64	.95	2.30	.99	2.63	.97
Subjective Internalized Strain (CGSQ)*	3.83	.93	3.50	1.00	3.79	.92
Objective Strain (CGSQ)	2.88	1.09	2.61	1.07	2.88	1.03
Caregiver Age*	36.75	6.04	54.64	7.09	38.97	6.73
Total Risk Factors*	4.38	2.50	4.75	2.34	3.46	2.55

* $p < .05$. ** $p < .01$.

Mediating Effects of Family Functioning

The mediating effect of family functioning was tested in this model. First, caregiver strain was regressed on family type. Second, family functioning was regressed on family type and, in the last step family functioning and family type were entered together (see Figure 1).

Family type was associated significantly with caregiver strain ($\beta = -.115, p < .01$) and family functioning ($\beta = .09, p < .05$). Grandparent caregiver status was associated significantly with higher functioning. In the last step of the regression, family type and family functioning were entered together. Family functioning ($\beta = -.36, p < .01$) had a significant effect on caregiver strain while family type became insignificant. This indicates that family functioning was a strong mediator of the relationship between family type and caregiver strain.

Mediating Effects of Family Resources

Linear regression analysis was used to test the effects of family type (single mother versus grandparent) and family resources on caregiver strain (see Figure 2). First, caregiver strain was regressed on family type. Second, family resources was regressed on family type and, in the last step, family resources and family type were entered together. Family type was associated significantly with caregiver strain ($\beta = -.115, p < .01$) and family resources ($\beta = .10, p < .05$).

Grandparent caregiver status was associated significantly with higher resources. In the last step of the regression, family type and family resources were entered together. Family resources ($\beta = -.36, p < .01$) had a significant effect on caregiver strain and family type remained significant ($\beta = -.076, p < .05$), indicating partial mediation of the relationship between family type and caregiver strain by family resources.

Mediating Effects of Family Functioning and Resources by Family Type to Caregiver Strain

To test the mediating effects of both family functioning and family resources on the relationship between family type and caregiver strain (see Figure 3), caregiver strain was regressed on family functioning, family resources and family type. Family functioning ($\beta = .20, p < .01$) and family resources ($\beta = .20, p < .01$) were significantly associated with caregiver strain but family type was not. This indicates that resources and functioning are strong mediators of the relationship between family type and caregiver strain. Family type impacts family functioning and family resources, which in turn affects caregiver strain.

Figure 1
Mediating Effects of Family Functioning on Caregiver Strain

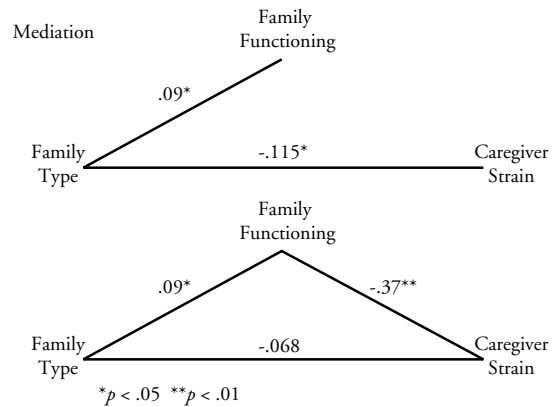


Figure 2
Mediating Effects of Family Resources on Caregiver Strain

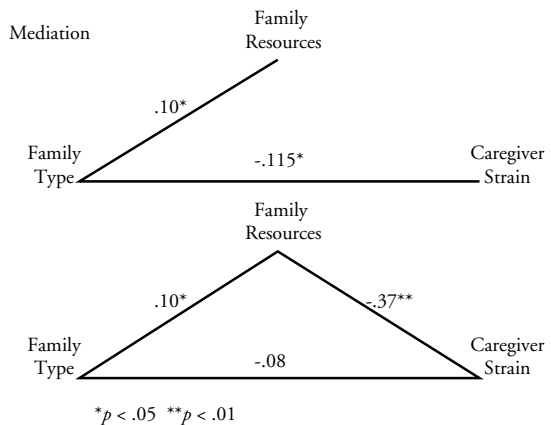
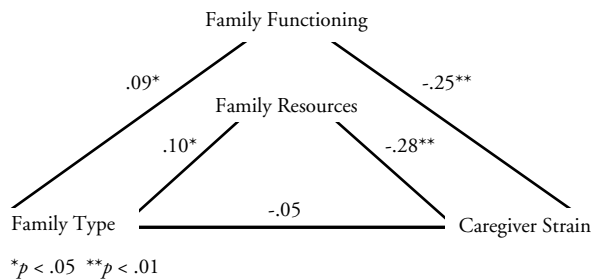


Figure 3
Mediating Effects of Family Functioning
and Resources on Caregiver Strain



Discussion

The primary goal of this study was to evaluate the differences between the three family types and to consider the possible mechanism that accounts for the relationship between family type and caregiver strain. Results indicate that there are differences among each type of caregiver in the types of strain they experience. Grandparent caregivers seemed to have lower strain and greater available resources than single-mothers and two-parent caregivers. Single-mother caregivers reported lower family resources and higher internalized-subjective and externalized-subjective strain than two-parent and grandparent families. Child and family risk factors were significantly higher among children raised by grandparents than among the other two family types. Although type of caregiver family impacted caregiver strain, family resources and functioning mediated the effect of family type on caregiver strain.

Results from this study indicate that family type, family resources and family functioning play an important role in determining caregiver strain. These findings indicate the importance of strengthening family functioning and resources, especially for caregivers who are single mothers. Grandparents in this study had the least strain, although they were taking care of children with the highest number of risk factors. It will be important for researchers and service providers to study grandparent caregivers to understand what types of resources reduce their strain and how resources impact family functioning among this group.

Testing mediation with regression analysis has its limitations. A tentative attempt has been made at causal ordering. Future research could involve creating a model using the different factors that affect caregiver strain and testing this model with sophisticated analysis techniques such as structural equation modeling.

These data highlight that family type in and of itself may not be a sufficient predictor of caregiver strain. Thus, it is important for service providers and researchers to evaluate family functioning and family resources and to strengthen these for families.

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Symposium Discussion

Mary E. Evans

This series of papers explores the ways in which poverty, family resources, and family functioning affect mental health outcomes for children and youth. The importance of these studies is that they hold the potential for identifying protective factors that may be addressed in designing interventions and policy initiatives to improve outcomes for these children and families.

In the initial paper on family functioning we learned that family functioning is a mediator between resources and child strengths. As such it serves as a protective factor, so that even with limited resources families can influence child strengths. The second paper indicated that poverty per se may not be associated with children's emotional and behavioral problems, but having adequate resources may be more important. The third paper reminds us that greater resources are associated with lower caregiver strain and higher family functioning, which we learned in the first presentation was associated with better mental health outcomes for children. This relationship was shown to be most important in families at greatest risk, which has direct implications for practice. The final paper in this series found differences among family types with regard to risk factors and resources. The basic message remains that family functioning and resources continue to be important factors promoting positive child outcomes. Family resources, in particular, are an important factor that must be followed carefully in welfare reform. Targeting interventions to families, as opposed to children, is essential because children are nested within families and supporting families promotes positive child outcomes.

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More than Money: Do Family Resources Predict Caregiver Strain?

**Michael Pullmann
Paula Savage
Nancy Koroloff**

Introduction

Many people believe that caregiver strain or stress is largely related to lack of money. However, there is increasing evidence that it is related to other, more intangible resources such as social support (McDonald, Poertner, & Pierpont, 1999; Yatchmenoff, Koren, Friesen, Gordon, & Kinney, 1998). Caregiver strain, or “the demands, responsibilities, difficulties, and negative psychic consequences of caring for relatives with special needs” (Brannan, Heflinger, & Bickman, 1997, p. 212), is important for several reasons. Caregiver strain or stress is a predictor of initiation of services and amount of service usage for children with emotional and behavioral disorders (Brannan, Heflinger, Schweitzer, & Orten, 2001; McDonald, Poertner & Pierpont, 1999; Teagle, Angold, & Costello, 1999). It is also related to caregivers’ own service use and physical health, even after controlling for other predictors of health, including age, income, marital status, and race (Gallagher & Mechanic, 1996). Finally, one of the principles of the system of care is the full participation of caregivers in their child’s treatment (Stroul & Friedman, 1986). High levels of caregiver strain may make this goal unfeasible.

In this analysis, we explore the relationships between caregiver strain, family resources, and child functioning in families with a child with an emotional or behavioral disorder. As well as exploring the basic relationships between these variables, a primary research question is: Do family resources predict caregiver strain after the effects of child functioning are statistically removed?

Data for this study were collected in Clark County, located in southwest Washington State, a mixed urban and rural setting. It is predominately white (89%), with small percentages of African American, American Indian, Asian, and other races and ethnicities. In 1999 the county received a Comprehensive Community Mental Health Services for Children and Their Families Program grants, funded by the federal Center for Mental Health Services.

Method

Families qualified for the evaluation if their child (5 to 17.5 years old): (a) needed services in mental health and another service system (school, juvenile justice, child welfare, etc.); (b) had a disability that was expected to last for more than one year; and (c) had a Global Assessment of Functioning (GAF: American Psychiatric Association, 1994) score below 50. One hundred and sixty-one caregivers were interviewed after their child had initially received services in a public mental health center. Fifty-one percent of families had an annual income of less than \$20,000, and 76% of caregivers had a high school diploma or higher education. Caregivers averaged 40 years of age. Most youths were in the custody of their biological mother (51%), with 23% in the custody of two parents, 9% wards of the state, and 11% in the custody of relatives. The racial distribution of the youth was fairly representative of Clark County, with 81% white, 3% African American, and 16% endorsing two or more races.

All three measures examined in this presentation were caregiver report. The Caregiver Strain Questionnaire (CGSQ; Brannan, et al. 1997) was used to measure caregiver strain; it examines strain in the caregiver due to an identified child’s functioning. We used the Global Strain score and three strain subscales: Subjective-Externalized Strain, or negative feelings about the child such as anger or resentment; Subjective-Internalized Strain, or feelings such as guilt and fatigue; and Objective Strain, or the toll taken from observable negative events such as trouble with the neighbors. Child functioning was measured using the Child Behavior Checklist (CBCL; Achenbach, 1991; see also Achenbach,

McConaughy, & Howell, 1987), a standardized measure of children's behavior problems. We report on the CBCL Total Problem score. Family Resources was measured using the Family Resource Scale (FRS; Dunst & Leet, 1987), which contains 30 items measuring the adequacy of resources in a family, including physical resources such as food and shelter, and human resources such as health care, time, energy, and social support. For this analysis we used an overall average of the item scores to develop a total score.

Results

Caregiver Strain

Consistent with the research mentioned earlier, we found that caregiver strain scores were related to the receipt of services. There were significant positive correlations between the number of different types of services received between baseline and six month follow-up, and baseline scores on Global Strain ($r = .376, p < .01$), Subjective-Internalized Strain ($r = .277, p < .01$), Subjective-Externalized Strain ($r = .212, p < .05$), and Objective Strain ($r = .455, p < .01$); as the caregiver's reported strain increased, the number of different types of services reported by the caregiver increased. However, when controlling for child functioning (measured by the baseline CBCL Total Problems scale) with a partial correlation, all of these correlations fall to near zero.

Family Resources

The FRS asks the caregiver to rate the adequacy of their total family resources such as time, money, social support, and property. To help delineate the concept of family resources as measured by the FRS, we examined the relationship between the FRS total score and families' incomes. We found small positive relationships between the FRS total score and yearly income ($r = .244, p < .01$) and between the FRS total score and yearly income divided by the number of people in the family ($r = .253, p < .01$). Income did not appear to be highly related to the families' rating of the adequacy of their resources.

We found moderate negative relationships between the FRS and Global Strain ($r = -.361, p < .01$), Subjective-Internalized ($r = -.344, p < .01$), Subjective-Externalized ($r = -.202, p < .01$), and Objective Strain ($r = -.384, p < .01$); as the adequacy of family resources increased, caregiver strain decreased. There were no significant relationships between strain and family income.

Child Functioning

Examining the relationships between child functioning and strain revealed moderate to high correlations between the CBCL Total Problem score and all CGSQ subscales: Global Strain ($r = .628, p < .001$), Subjective-Internalized ($r = .567, p < .001$), Subjective-Externalized ($r = .391, p < .001$), and Objective Strain ($r = .655, p < .001$). As the child's problem score increased, strain scores increased. These strong correlations are probably due to the fact that the CGSQ focuses on strain that is due to the child's functioning. There was a significant negative correlation between child functioning and family resources; as the child's problems increased, the FRS Total Score decreased ($p = -.405, r < .001$).

Hierarchical Linear Regression

To answer the principal research question, do family resources predict strain after the effects of child functioning are statistically removed, a hierarchical multiple linear regression analysis was performed using caregiver strain as the dependent variable and the adequacy of child functioning and family resources as the independent variables. The variables were entered using child functioning in the first step, family resources in the second step, and an interaction term between resources and functioning in the third step. The results are in Table 1.

Child functioning, as measured by the CBCL Total Problems score, accounted for 62.8% ($p < .001$) of the variance in caregiver strain. After factoring out the statistical effects of child functioning, family

Table 1
Hierarchical Multiple Linear Regression

<i>IV</i>	<i>R</i> ²	<i>R</i> ² <i>change</i>	<i>p</i> for <i>R</i> ² <i>change</i>	<i>B</i>	β	<i>p</i>
CBCL Total Problems	.628	.628	<.001	.050	.515	<.001
FRS total	.678	.065	<.001	-.324	-.278	<.001
FRS x CBCL	.684	.009	.118	/	/	/

resources accounted for an additional 6.5% ($p < .001$) of the variance in caregiver strain. The interaction term of resources and functioning added no significant predictive value to the model, and was left out of the final model.

Discussion

These results demonstrate that family resources are related to caregiver strain beyond the effects of child functioning; in other words, after statistically controlling for functioning, there was a relationship between family resources and caregiver strain. The high level of multicollinearity between the three principal variables highlights the risk in examining youth, family, and caregiver variables in isolation of each other. Additionally, we found a small relationship between income and family resources and no relationship between income and caregiver strain. It is important to consider that income had restricted variability, with more than half of the cases reporting a yearly income of \$20,000 or less, so we cannot assume these findings would be true for more wealthy populations. However, Yatchmenoff et al. (1998) and Dunst et al. (1986) reported similar findings in other populations.

These researchers and others (McDonald et al., 1999) have found that social support from family and friends has a significant relationship with stress or strain. While many of the resources measured by the FRS are theoretically related to income (adequacy of food, shelter, money to buy things), it appears that intangible resources such as social support and time may have a stronger relationship with strain. These findings support the argument that improving both child functioning and intangible family resources may most effectively decrease caregiver strain.

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Maternal Behavior and Biological Influences on Birth Outcomes: Implications for Children's Mental Health

**Katherine A. Best
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Introduction

The Surgeon General's report on mental health acknowledges the important influence that biological factors have on children's mental health (Department of Health and Human Services, 1999) and specifically notes the well-established risk factors of intrauterine exposure to alcohol or cigarette smoke (Nichols & Chen, 1981). The report stresses the need for more preventive interventions and cites several empirically validated programs that include prenatal services for expectant mothers (Olds et al., 1998) as well as infant health services for low-birth-weight and premature babies (McCarton et al., 1997). The importance of prevention in ensuring the well being of children was also noted in a 1998 report from the National Institutes of Mental Health (NIMH), which detailed their priorities for prevention research (NIMH, 1998). Additionally, the NIMH documented the importance of prevention in their recently released report, *Blueprint for Change: Research on Child and Adolescent Mental Health*. (NIMH, 2001).

Nonetheless, the prevalence and magnitude of perinatal substance exposure continues to be a growing concern in the health industry. Advancement in medical technology enables us to sustain life, readily producing "state-of-the-art-babies," but often without an equivalent level of social systems to support these infants (Carson, 1996). The medical implications for infants exposed prenatally to alcohol, tobacco, and illicit drugs range from pre-term labor, low birth weight, and prenatal and postnatal growth retardation, to anomalies of the genitourinary, cardiac, and central nervous systems, respiratory distress, poor feeding, abnormal sleep patterns, and neurobehavioral deficits (Apolo, 1995; Karr-Morse & Wiley, 1997; Pollack, Lantz & Frohna, 2000; Streissguth, Barr, Sampson & Bookstein, 1994).

While the social and emotional costs for life long disabilities or complications from the cyclical nature of substance abuse within families is of concern for researchers, the monetary costs for preventable outcomes continues to rise to a national level of over \$500 million a year (Joyce, Racine, McCalla & Wehbeh, 1995; Murphy et al. & Goshko, 1991; Phibbs, Bateman, & Schwartz, 1991; Rand, 1998; Rohsenow, Corbett, & Devine, 1988). Substantial social and financial cost savings could be realized by preventative programs and well designed treatment interventions that would reduce the risk of premature births and low birth weight (Joyce, et al., 1995; Olds et al., 1998).

The purpose of this study was to identify the impact of maternal substance-using behaviors on the following infant birth outcomes: (a) birth weight, (b) gestation, (c) 1-minute APGAR score¹, (d), hospital length of stay, and (e) costs for infants admitted to a regional neonatal intensive care unit. By examining the effect of these predictors on the birth outcomes of infants admitted to an intensive care unit, this study differs from previous work that focused on birth outcomes within the general population.

Method

This study consisted of a retrospective analysis of data on all infants discharged over a three year period from a regional neonatal intensive care unit (NICU) in Southwest Florida. Data on maternal and infant demographics and characteristics, length of stay, and actual charges were obtained from the hospital's management information system and were merged with information extracted from medical charts to enable further investigation of birth outcomes, prenatal behaviors, and service involvement.

¹APGAR scores (Gale Encyclopedia of Psychology, 2001) are used to rate newborn's condition at one, five, and 10 minutes after delivery on five qualities: Appearance (color); Pulse (heartbeat); Grimace (reflex); Activity (muscle tone); and Respiration (breathing). A score is determined by awarding zero, one or two points in each category. The higher the score, the better the baby's condition—scores of seven and over indicate the baby is in good condition.

Subjects

The sample consisted of 1,010 mother and infant pairs. Over half of the infants were boys (52.6%). The racial distribution was reflective of the region, with 74.2% of mother-infant pairs being white, followed by 3.9% Black/African American, 10.2% Hispanic, and 1.6% Asian. Single mothers represented 40% of the sample. The mean maternal age was 27.7 years old ($SD = 7$ years), with mothers ranging in age from 13 to 50 years. Teenage mothers (i.e., less than 18 years old) accounted for 15% of the sample. Maternal education varied from 2 years of elementary school to 18 years of education, with 21.2% of the mothers not having completed high school, 33.8% who had completed high school or had a general education diploma (GED), and 45% who had some secondary education.

Results

Mother's age was significantly related to gestation $t(180.4) = 2.82; p < .005$; infants of teenage mothers had significantly shorter gestation periods compared to infants of older mothers. The infants of mothers with less than a high school degree had a significantly shorter gestation period $t(991) = 3.08, p < .002$ compared to infants whose mothers had at least a high school degree. Similarly, infants of mothers with less than a high school education had significantly longer stays in the NICU $t(281.4) = 1.99, p < .05$ compared to infants of mothers with a high school degree or higher. Infants born to single mothers had significantly shorter gestation periods $t(792.3) = 2.63, p < .01$, compared to infants whose mothers were married. The 1-minute APGAR scores of infants born to married mothers were significantly higher $t(992) = 2.59, p < .01$ compared to those of infants born to single mothers. As shown in Table 1, infants of single mothers had significantly longer lengths of stay in the NICU and higher hospital charges compared to infants of married mothers.

Mothers' substance-use behaviors including the use of alcohol, tobacco, and illicit drugs were examined as predictors of infant birth outcomes, lengths of stay, and hospital costs. Overall, 27.7% of the mothers smoked cigarettes during pregnancy, 15.5% drank alcohol, and 9.1% used illicit drugs. Of the total sample, 35% of the infants, were prenatally exposed to at least one of these substances, while 14% were exposed to two or more. The most dramatic results noted were that a mother smoking over one pack of cigarettes per day, or drinking over one alcoholic beverage per day, *doubled* the average length of stay and costs for an infant in the neonatal intensive care unit.

Mothers who smoked cigarettes had infants with significantly shorter gestation periods compared to mothers who had not smoked. Among mothers who smoked, the amount they smoked was predictive of infants' gestation periods $t(265) = 2.36, p < .05$, lengths of stay $t(37.6) = 2.60, p < .05$, and costs $t(36.5) = 2.35, p < .05$.

Similarly, the amount of alcohol mothers drank during pregnancy was significantly related to the infants' gestation periods $t(152) = 3.01, p < .005$, 1-minute APGAR scores $t(152) = 2.74, p < .007$, lengths of stay in the neonatal intensive care unit (NICU) $t(37.9) = 2.96, p < .005$, and hospital costs $t(35.4) = 2.40, p < .05$. Infants of mothers who drank one drink a day or *less* had significantly longer gestation periods, higher 1-minute APGAR scores, shorter stays in the NICU, and lower hospital costs compared to infants of mothers who drank *more* than one drink a day.

Not surprisingly, involvement with the child welfare system was also significantly related to gestation period $t(1002) = 6.31, p < .001$, and hospital charges $t(317.2) = 5.25, p < .001$. Infants of mothers involved with the child welfare system had significantly shorter gestation periods compared to those with no child welfare involvement. The hospital costs of infants whose mothers had child welfare involvement were significantly higher relative to those not in the child welfare system.

In summary, 42% of teen mothers smoked cigarettes, 43% of all mothers were on Medicaid, and about 29% received no or inadequate prenatal care. Neonates with hospital charges ranging from \$50,000 to \$346,000 accounted for 57% of all costs (\$14,799,253.00), and represented 14 % of the

Table 1
The Relationship of Maternal Variables and Birth Outcomes

<i>Predictors</i>	<i>Weight (in grams) Mean/SE</i>	<i>APGAR Score (1 minute) Mean/SE</i>	<i>Gestation (in weeks) Mean/SE</i>	<i>Length of Stay (in days) Mean/SE</i>	<i>Actual Charge (in dollars) Mean/SE</i>
Demographics					
Education:					
Less than HS (<i>n</i> = 199)	2272/71.6	6.78/.17	33.44/.34 ^e	20.56/1.77 ^a	\$27,492/2,911.2
HS or above (<i>n</i> = 793)	2364/37.8	7.05/.08	34.54/.16	16.70/.79	\$25,343/1,420.1
Race:					
White (<i>n</i> = 743)	2375/39.86	7.01/.08	34.34/4.48	16.90/22.27	\$24,888/1,482.4
Nonwhite (<i>n</i> = 259)	2267/59.62	6.94/.14	34.20/4.77	19.00/23.49	\$28,281/2,486.8
Age:					
Younger than 20 (<i>n</i> = 145)	2262/82.01	6.67/.20	33.20/.43 ^e	21.08/2.10	\$30,244/3,591.8
20 or older (<i>n</i> = 854)	2363/36.47	7.05/.08	34.49/.15	16.86/.76	\$25,050/1,363.2
Marital Status:					
Single (<i>n</i> = 407)	2315/52.51	6.77/.11 ^b	33.84/.24 ^b	20.42/1.26 ^d	\$29,852/2,171.5 ^b
Married (<i>n</i> = 596)	2369/43.09	7.15/.09	34.62/.18	15.40/.84	\$22,970/1,538.
Risk Behaviors					
Smoked:					
No (<i>n</i> = 701)	2347/40.2	7.11/.01	34.56/.17 ^b	16.76/.83	\$25,474/1,528.7
Yes (<i>n</i> = 269)	2341/63.7	6.87/.14	33.71/.28	18.79/1.48	\$25,721/2,428.9
Amount Smoked:					
1 pack or less (<i>n</i> = 233)	2384/68.2	6.94/.15	33.97/.30 ^a	16.72/1.45 ^c	\$22,247/2,270.1 ^d
More than 1 pack (<i>n</i> = 34)	2063/183.1	6.35/.46	32.00/.81	31.71/5.57	\$46,174/9,940.0
Drank:					
No (<i>n</i> = 818)	2356/37.0	7.07/.08	34.31/.16	17.27/.78	\$25,596/1,375.6
Yes (<i>n</i> = 153)	2283/85.1	6.90/.19	34.49/.36	17.67/1.99	\$25,251/3,686.0
Amount Drank:					
Daily or less (<i>n</i> = 119)	2306/93.4	7.20/.20 ^b	35.03/.38 ^e	13.49/1.65 ^d	\$18,087/2,479.8 ^d
More than 1 per day (<i>n</i> = 34)	2229/191.1	5.97/.44	32.53/.82	32.29/6.14	\$50,202/1,3173.7
Used Drugs:					
No (<i>n</i> = 891)	2363/35.4	7.09/.07	34.34/.15	17.17/.76	\$25,568/1,350.6
Yes (<i>n</i> = 79)	2141/119.1	6.52/.28	34.19/.55	19.00/2.63	\$25,252/4,514.0
Services Used					
Prenatal Care:					
Within first 12 weeks (<i>n</i> = 675)	2439/62.7	6.90/.14	34.65/.28	17.18/1.47	\$24,283/1,442.8
12 weeks or after (<i>n</i> = 272)	2329/40.6	7.08/.08	34.07/.17	17.39/.86	\$25,906/1,544.2
Social Work Contact:					
No (<i>n</i> = 759)	2391/38.48 ^a	7.10/.08 ^b	34.82/.16 ^d	14.59/.73 ^d	\$21,071/1,235.9 ^d
Yes (<i>n</i> = 248)	2206/65.79	6.65/.15	32.76/.29	25.98/1.76	\$39,793/2,241.9
Health Start/Healthy Families:					
No (<i>n</i> = 333)	2440/62.7 ^a	7.18/.12	35.54/.23 ^d	12.57/1.04 ^d	\$19,029/1,918.7 ^d
Yes (<i>n</i> = 427)	2282/48.9	6.98/.10	33.16/.22	22.77/1.24	\$32,693/2,205.4
Medicaid:					
No (<i>n</i> = 571)	2474/42.1 ^d	7.04/.09	34.54/.19	16.48/.90	\$24,093/1,540.7
Yes (<i>n</i> = 436)	2166/52.4	6.93/.11	34.00/.22	18.58/1.15	\$27,762/2,120.0
Children Welfare Report:					
No (<i>n</i> = 963)	2357/33.9	7.02/.07	34.39/.15 ^b	16.72/.71 ^d	\$24,881/1,270.4 ^e
Yes (<i>n</i> = 44)	2099/161.2	6.39/.42	32.48/.71	32.18/4.40	\$43,202/7,935.3
Pregnancy Program:					
No (<i>n</i> = 975)	2349/33.9	7.00/.07	34.30/.15	17.43/.73	\$25,782/1,298.2
Yes (<i>n</i> = 32)	2236/172.7	6.81/.45	34.59/.83	16.34/3.54	\$22,623/5,275.9

^a*p* < .05; ^b*p* < .01; ^c*p* < .005; ^d*p* < .001

sample (*n* = 133). And finally, of the 32 infant deaths and 63 transfers to higher level of care facilities, 46.5% were exposed to one or more drugs. There was a significant difference, χ^2 (1, *N* = 786) = 3.81, *p* < .05, found in alcohol exposure between the infants who died or were transferred for more intensive care (25.4%) as compared to those infants remaining in the facility (16.2%). No significant difference was found between these two groups for nicotine or illicit drug exposure.

Unfortunately, of the 79 mothers who used illicit drugs and of the 34 mothers who drank more than one alcoholic drink per day, only 32 mothers were enrolled in either a teen pregnancy program or substance abuse treatment program.

Conclusion

Although simply knowing whether mothers used tobacco or alcohol during pregnancy was not found to be predictive of the infants' gestation period, length of time in the neonatal intensive care unit, or total hospital costs, the amount that mothers smoked and/or drank was significantly associated with each of these outcomes. Among teenage mothers, the rates of smoking, substance use, and inadequate prenatal care were high, suggesting the need for enhanced or expanded prenatal programs for teenage mothers.

Researchers nationwide have concluded that while targeted interventions are important, public health policies are also needed to address the growing concern of substance exposed infants through educational programs to avoid the preventable health risks and adverse birth outcomes (Murphy-Brennan & Oei, 1999; Pollack, et al., 2000; Rand, 1998). Until recently there was no movement to coordinate services or track clients, or even screen mothers comprehensively for various indicators of substance abuse, domestic violence, or sexual abuse (Young & Gardner, 1998). The overarching implication is that there may be a need to establish systems of care to address the needs of mothers and infants from a developmental perspective, which would offer a safety net for many of these babies who are not only costly at birth but often grow up with ongoing needs. The lack of utilization of existing pregnancy programs by mothers who are high-risk in the study suggests a need to identify barriers to treatment.

This study also suggests that there is still a great need for preventative measures and well-designed interventions in order to better educate women about the dramatic impact that daily use of cigarettes and/or alcohol has on the physical and mental health of infants.

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Topical Discussion Overview

Integrating Services for Parents and Children in Three SAMHSA-funded Multi-Site Initiatives

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Introduction

The Substance Abuse and Mental Health Services Administration (SAMHSA) funds three multi-site intervention evaluation initiatives involving integrated services for family members living with or at risk for the development of emotional or behavioral difficulties. Access to services is facilitated for family members through different portals, including: (a) integrated behavioral health services targeted to very young children in community-based early childhood settings; (b) integrated services addressing the needs of women identified as having histories of trauma and their children, in substance use or mental health treatment settings; and (c) multi-faceted, comprehensive services for homeless mothers with psychiatric and/or substance use disorders, in shelter, agency and primary care settings. Improving outcomes for adults and children, and enhancing parent-child relationships are essential aspects of each of these initiatives. Project experiences and early findings suggest considerations for a family-centered approach to services for parents and children, regardless of whether the adult or child family member is first through the service door. These SAMHSA initiatives provide an opportunity for a discussion of knowledge transfer among projects and programs in which families are living with similar risk factors.

Previous discussions (Katz-Leavy, Nicholson, Hinden, & Lambert, 2002) have highlighted the overlapping issues and service needs of families in which parents are living with mental illness and those in which children have serious emotional disturbance. For example, there are high rates of parental psychiatric hospitalization, mental illness, and substance abuse in families served by systems of care for children with serious emotional disturbance across the United States (Macro International, 1998). For children in these programs, family risk factors, such as history of parental mental illness, are related to the presence of child risk factors such as hospitalization, suicidality, and substance abuse, as well as to child functioning. Children whose parents have mental illness, in general, are at greater risk for the development of emotional and behavioral problems (Oyserman, Mowbray, Meares, & Firminger, 2000; U.S. Department of Health and Human Services, 1999). Preliminary analyses of data from the National Comorbidity Survey (NCS; Kessler, 1994) indicate that the majority of adults who meet criteria for psychiatric disorder in all diagnostic categories are parents (Nicholson, Biebel, Hinden, Henry, & Stier, 2001). Many families are likely to be meeting the dual challenges of parental mental illness and child mental health problems. Unfortunately, adult mental health systems or services may be no better equipped than child-serving systems or agencies to meet the multiple, overlapping needs of these families (Katz-Leavy, et al., 2002).

Initiatives

Starting Early, Starting Smart (SESS)

In October 1997, with initial funding of \$30 million, SAMHSA and Casey Family Programs embarked on a precedent-setting public/private collaboration. Twelve culturally diverse grantee organizations were selected. Each provides integrated behavioral health services in community-based early childhood settings—such as childcare, Head Start and primary care clinics—where young families customarily receive services for their children. Critical to this project is the required collaboration among funders, grantees, consumers, and local site service providers. Implicit in the design of this project is sustainability planning for secured longevity of the programs.

The 12 grantees, working collaboratively, designed a study called *Starting Early, Starting Smart* (SESS), in which integrated behavioral health services are delivered in typical early childhood settings.

Each site has an intervention and comparison group, and delivers similar targeted, culturally relevant interventions for young children and their families. Outcomes established to evaluate project effectiveness include:

- Access to and use of services;
- Social, emotional, and cognitive outcomes for children;
- Caregiver-child interaction outcomes; and
- Family functioning.

The goal of the SES research is to provide rigorous scientific evidence concerning whether children and families participating in SESS programs achieve better access to needed services and better social, emotional, cognitive, and behavioral health outcomes than do the children and families not receiving these services. SESS programs may also generate information about opportunities, practices, and barriers to sought-after outcomes.

In sum, SESS reflects the growing acknowledgment that the infant and preschool years lay a critical foundation for later growth and development, and that it is important to target positive interventions to very young children. Second, successful interventions for very young children must meet the multiple behavioral health, physical health, and educational needs of families. Third, integrated behavioral health services must be made more accessible to families with multiple needs, which are difficult to meet in a fragmented service system.

Women with Co-Occurring Disorders and Histories of Violence and the Children's Subset Study

In this initiative, SAMHSA acknowledged the complex interaction and profound impact of violence, substance use and mental health disorders in the lives of women and their families. Sites developed and implemented an integrated system of care for delivering intervention models that specifically address issues of trauma and co-occurring disorders. Interventions focus on, for example, improved coordination of services across communities and agencies; enhanced service access; and the development of trauma-specific services for adult women survivors. Integral to the initiative is the assumption that many of these women have children, and that many of their children have witnessed violence or sexual abuse and have been victims of abuse themselves. It is anticipated that the interventions with women who are mothers will lead to women's improved functioning and have a positive impact on their children's lives.

The Children's Subset Study was developed to focus on children who are likely to have been affected by their mother's experience of violence, mental illnesses, and substance use issues. Four sites, of the nine funded to evaluate integrated services for women, implemented an innovative, comprehensive, and trauma-informed intervention to enhance resiliency and improve coping skills of 5 to 10 year old children of participants in the women's study. The children's intervention has three major components: (a) clinical assessment of the child's individual needs; (b) ongoing case management (including referral and advocacy); and (c) age-appropriate 10-week group intervention based on Peled and David's curriculum for children exposed to domestic violence. Outcomes for children participating in the study intervention will be compared with children at the study comparison sites to determine the net effect of both the women's and the children's interventions.

Homeless Women with Psychiatric, Substance Use, or Co-Occurring Disorders and their Children

The target population of this SAMHSA multi-site initiative is homeless mothers with psychiatric and/or substance use disorders who are caring for their dependent children. Interventions are not specifically child-focused; rather, mothers are the focus of the interventions being evaluated. The underlying assumption of this initiative is that as the functioning and well being of mothers improve,

their children will also show improvements in behavior and functioning. Interventions are time-limited and multi-faceted with goals including: movement into and increased stability in housing, increased family preservation or reunification, decreased substance use, trauma recovery, and improved mental health and social functioning.

The Homeless Families Program at the Family Health Center (FHC) in Worcester, MA is a multi-faceted intervention addressing the health care, mental health and substance abuse, and parenting needs of homeless mothers and their children accessing services in a primary care setting. The program is being evaluated, via the SAMHSA Phase II initiative, to determine its effects on the mental health, substance use, residential stability, parenting skills, and other outcomes for homeless mothers. It is anticipated that homeless mothers will show improvements in psychological functioning and reduced psychological distress; a decrease in problematic alcohol and other drug use; increased residential stability; increased knowledge and performance of positive parenting practices and quality time spent with their children. The evaluation will also examine the effects that family participation in the FHC intervention has on the mental health and behavior of children ages 2-16. Children will be expected to show improvements in mental health and behavior, and in school attendance. Parenting and child well being are addressed in the clinic setting, in homeless shelters, and in homes, once families are housed. Mothers are also offered participation in a Parents Achieving Self-Efficacy (PASE) group intervention.

Discussion

A clear assumption underlying these initiatives is that child and parent well being are interrelated. In some families, both children and parents may have mental health issues. In others, children may be having problems and their parents functioning well, or parents may have mental illness and their children functioning well. Consequently, these family scenarios may provide opportunities for the enhancement of coping skills and the prevention of difficulties for both children and adults, as well as, in many cases, provide treatment. Strategies for integrating child and adult mental health services highlight collaboration and flexibility. All stakeholders may be engaged to achieve common goals. “Child” and “adult” staff members may be cross-trained or re-trained to understand the needs of and, potentially, to work with all family members, in integrated clinical supervision or as part of a team. Flexibility is key, as child and adult family members may “show up” in various places in the service system. The benefit is that other settings, e.g., community-based early childhood or primary care settings, may be less stigmatizing than traditional mental health venues, and may promote service access and utilization. The chief challenge is integrating the array of relevant services essential to meeting the needs of all family members.

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Parents with Mental Illness and Their Children: Elements of Evidence-Based Practices

**Joanne Nicholson
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Judith Katz-Leavy**

Introduction

Millions of adults in the United States are affected by mental illness (U.S. Department of Health and Human Services, 1999). The majority of these men and women are or will become parents (Nicholson, Biebel, Hinden, Henry, & Stier, 2001; Nicholson, Nason, Calabresi, & Yando, 1999). Despite the prevalence of parenthood among adults with mental illness, mental health systems have traditionally served individual adult and child patients through categorical funding streams that do not allow for family-focused services for adults with mental illnesses and their children, or for services for the parents of children with serious emotional disturbance who may have mental health issues (Nicholson, Geller, Fisher, & Dion, 1993). Pervasive stigma and realistic fear of losing custody of their children have contributed to the “invisibility” of parents with mental illness as well as their children.

Over the last decade, however, there has been increasing awareness that parents comprise a large subgroup of adults receiving mental health services, and that parents require specialized services to meet their needs (Cook & Steigman, 2000; Mowbray, Schwartz, Bybee, Spang, Rueda-Riedle, & Oyserman, 2000; Mowbray, Oyserman, Bybee, MacFarlane, & Rueda-Riedle, 2001; Nicholson, 1996; Nicholson & Henry, 2002; Nicholson, Sweeney, & Geller, 1998a, 1998b). In some cases, this increased awareness has led to the availability of funding and the development of innovative programs for parents with mental illness in the United States and elsewhere (Cowling, 1999). Programs for parents have generally been developed on a small, local scale with limited funding, and have remained largely isolated from one another. As a result, we know little about programs for parents or their impact on outcomes for adults and children. Before conclusions can be drawn about practices for parents with mental illness and their families, the development of an empirically supported evidence base is necessary.

Our goal was to take the next steps toward evidence-based practices for parents with mental illness and their families by identifying and systematically describing existing interventions. We report data from two studies designed to facilitate, ultimately, the rigorous evaluation of interventions. In the first study we identified programs and conducted in-depth telephone interviews with administrators and providers to describe, compare and contrast programs along selected dimensions. In the second study we defined explicit logic models with hypothetical links between target populations, practices, processes, and outcomes for selected programs, using data obtained in comprehensive site visits.

Method

Study I: The National Program Survey. The National Program Survey consisted of two parts. Existing programs ($N = 48$) were identified through a national mailing to programs and providers known to work with parents with mental illness. Programs were categorized as high-, medium-, and low-specificity with respect to focus on parental mental illness. Telephone interviews were conducted with directors of high-specificity programs to explore program characteristics including: program development; program funding; theoretical orientation; target population; program models; services and interventions, and; outcomes. A briefer interview reflecting program development, program funding, and services was developed for medium- and low-specificity programs. Interview data were coded for content and analyzed qualitatively. A logic model template was developed for use in Study II.

Study II: Site Visit Study. Five programs from the high-specificity group were selected for site visits. Programs included Children and Parents Together in Commack New York, Emerson Davis Family Development Center in Brooklyn New York, Family Support Services/PACE Program in Iowa

City Iowa, Invisible Children's Project in Goshen New York, and the San Francisco General Hospital Programs including the Consultation/Liaison Program to OB/GYN, the Infant Parent Program and the Women's Issues Psychiatric Program. Selected programs reflected a diversity of geographic location, funding source, and program model. Investigators visited program sites and interviewed program administrators, staff, participants, and community collaborators, and collected agency documents (e.g., annual reports). Data collection was organized around the logic model developed in Study I. Investigators' logic models were created with program administrators, staff, and participants at each site.

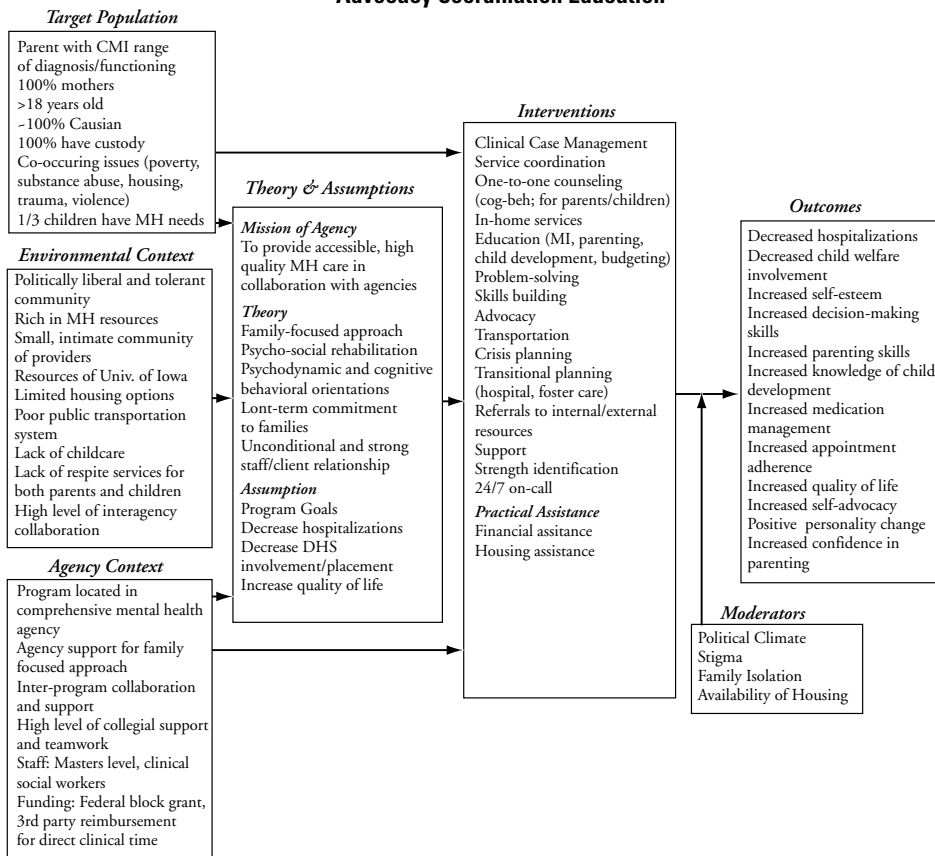
Results

Study I: The National Program Survey The National Program Survey found 20 programs were categorized as high-specificity, 13 were categorized as medium-specificity, and 15 were categorized as low-specificity. In general, program initiation came from either adult mental health providers or policy-makers, or early intervention providers or theorists. Initiation and development of sustainable programs appeared to rely upon the passionate commitment of at least one advocate devoted to the "cause" of parents with mental illness. The most common primary funding source across programs was the adult division of the state mental health authority. A variety of approaches and theoretical orientations were relied upon to meet the multiple and complex needs of participants. Parents with serious and persistent mental illness eligible for public sector mental health services were the most commonly targeted population, with eligibility requirements differing by program. Race and ethnic characteristics of parent program participants varied greatly by geographic location. Differences observed across programs appeared to be related to program development, theoretical orientation, and funding variables. No program had standardized outcome evaluation measures or data for parents or children available. Most programs collected consumer satisfaction data and reported very high rates of satisfaction with services (>90%).

Study II: Site Visit Study. Data from the site visits were summarized with respect to similarities and differences across programs on the key aspects defined by the logic model template (see Figure 1). Programs served a common population of adults (>18 years old) with serious mental illness (SMI) who have children. Programs varied in their requirements for child custody and many programs limited their services to parents with young children, e.g. ages 0 to 3 or 0 to 5 years. Programs generally shared a core mission of serving families or parents and children. However, programs developed for adults with mental illness focused on enhancing parent and family functioning while programs developed to improve child developmental outcomes focused on child functioning. Programs reflected strong consistency in the core underlying value placed on providing family-centered, strengths-based, flexible and responsive, non-judgmental, and unconditional, long term services. Yet programs developed for adults with mental illness often had psychosocial rehabilitation values and principles (recovery, normalization, independence, community integration) while programs developed to improve child developmental outcomes had orientations that focused on attachment between parent and child, parent empathy, and age appropriate child skills and school readiness.

Programs for parents were funded primarily from adult mental health authority monies (e.g. Departments of Mental Health). Secondary funding was provided from a variety of other public and private sources. A few programs and services reflected innovative blended or non-categorical, interagency funding from mental health and child welfare or child public health programs (e.g., Early Intervention). Several programs accessed HUD funding or specialized local funding programs (e.g., New York, NY funding). Providers uniformly spoke about enhancing the quality of life for parents and children, promoting the parent-child relationship, and about preserving the family or establishing successful reunification and decreased need for out of home placements. Programs differed in whether or not they identified and tracked both parent and child outcomes, or focused predominantly on one or the other.

Figure 1
Logic Model: Family Support Services/Parents
Advocacy Coordination Education



Discussion

Taken together, data from the two studies identified core program components and key ingredients across programs. Program goals suggested relevant outcomes. *Core components* included comprehensive family case management, access to a comprehensive array of services, coordination of multiple services and the facilitation of communication among multiple providers, flexible funds to meet unique family and individual needs, crisis intervention services, education about child development that enhanced parent-child relationships, and parenting skills training.

With respect to *key ingredients*, the data indicated that family-centered, strengths-based values and practices may be the key to program success and improved outcomes for parents and children. Family-centered approaches posit the family as the unit of service, and optimal family functioning as the desired outcome. A family-centered approach is best served through the integration of adult and child services and systems, interagency collaboration, and the availability of non-categorical, flexible funding. The other key ingredient identified across programs was a trusting, emotionally supportive relationship between provider and consumer. Strengths-based, non-judgmental approaches, and unconditional care appeared to be the foundations for this relationship.

Finally, several *relevant outcomes* for rigorous program evaluation were also defined by the current studies. These included optimal functioning of both parent and child across role domains, improved parent-child relationship, preservation of family unit, achievement of basic family needs, enhanced social networks, and child-related outcomes such as school readiness, and school attendance. These outcomes were discussed with respect to strategies for assessment and methodological challenges

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Caregiver Perception of Services and Children's Mental Health Outcomes: Are They Related?

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Introduction

There is growing pressure on providers of child and adolescent mental health services to demonstrate quality and effectiveness of care, and to involve consumers in service evaluation. Consumer surveys offer perhaps the least burdensome and costly means of assessing service quality and effectiveness, an important consideration given the limited resources available to most providers. However, what exactly quality means for consumers of child mental health services, and how consumer perceptions of services are related to treatment outcomes is still not well understood (Anderson, Rivera, & Kutash, 1998; Brannan, Sonnichsen, & Heflinger, 1996; Noser & Bickman, 2000; Salzer, 1999; Staniszewska & Ahmed, 1999). Standardized, validated instruments that measure consumer perception of child mental health services are few, and major limitations remain (Salzer, 1999; Staniszewska & Ahmed, 1999; Young, Nicholson & Davis, 1995). For example, measures of client satisfaction have often been developed in the absence of consumer input (Greenley & Robitschek, 1991; Measelle, Weinstein, & Martinez, 1998; Williams, 1994), and thus may not reflect concerns of service recipients (Measelle et al., 1998). In a number of studies, small sample sizes and/or limited treatment settings have also limited the interpretation and generalizability of results (Garland, Aarons, Salzman & Kruse, 2000; Measelle et al., 1998; Rosen, Heckman, Carro, & Burchard, 1994). In addition, many previous studies have used point of service sampling, thereby failing to capture clients who had left the service provider (Brannan et al., 1996), a group more likely to evaluate services negatively and to suffer poorer therapeutic outcomes.

Perhaps most important, mental health outcomes are often not included in surveys of consumer satisfaction, limiting the interpretation and utility of such surveys (Bickman, & Salzer, 1997; Measelle et al., 1998; Noser & Bickman, 2000; Salzer, Nixon, Schut, Karver & Bickman, 1997). Few studies have assessed the association between therapeutic change and caregiver perception of children's mental health services, and findings have been conflicting (Jensen, Hoagwood & Petti, 1996; Lambert, Salzer & Bickman, 1998; Noser & Bickman, 2000; Rey, Plapp & Simpson, 1999). Specifically, no studies have yet evaluated the relation of child outcome to perceived cultural sensitivity of service providers, access to services, appropriateness of care, and certain other key dimensions of satisfaction thought to be important determinants of service utilization (Switzer, Scholle, Johson & Kelleher, 1998; Walker, 2001); retention (Breda & Bickman, 1997; Garland, Salzman & Aarons, 2000; Kazdin, Holland & Crowley, 1997; Switzer et al., 1998), and treatment outcomes (Bryant-Comstock, Huff & VanDenBerg, 1996; Heflinger, Bickman, Northrup & Sonnichsen, 1997; Isaacs-Shockley, Cross, Bazron, Dennis, & Benjamin, 1996; Kazdin & Wassell, 2000; Lambert, Salzer & Bickman, 1998; Resendez, Quist & Matshazi, 2000; Sue, 1998; Walker, 2001) among child recipients of mental health services. In this paper, we examine the association between caregiver perceptions of services and reported behavioral and functional outcomes while addressing some key limitations of previous studies.

Method

As a part of the Center for Mental Health Services (CMHS)-funded 16 State Indicator Project, the Children's Indicator Workgroup recently completed development of the Youth Services Survey for Families (YSS-F). The instrument development process involved the collaboration of several states, as well as the extensive solicitation and incorporation of consumer feedback. The workgroup also sought input from other stakeholders, including federal funding agencies, state departments of mental health, and local program managers. The overall goals were to identify the domains and indicators critical to the evaluation of child mental health services, to develop measures that reliably and accurately assess these domains, and to address some of the limitations of previous studies.

The YSS-F includes 21 items designed to measure five major domains of caregiver perception of services: access to services, participation in treatment, cultural sensitivity of staff and perceived discrimination, overall satisfaction with services, and child outcomes. Respondents were asked to rate each item using a 5 point Likert scale, ranging from *strongly disagree* (1) to *strongly agree* (5). Child outcomes include perceived improvement in child behavior and functioning (a domain comprising six items), in addition to child contact with the juvenile justice system within the past six months and school absence within the last month, indicators assessed via separate survey questions. Also included are questions regarding child demographic characteristics, residential status, contact with medical providers, Medicaid status, medications for behavioral/emotional problems, and whether or not the child is still receiving services from the same provider. To date, this survey has been used in at least 14 states to evaluate mental health services for youth, and has been reported to provide a useful and efficient means of collecting the information needed to calculate the performance indicators recommended for federal reporting.

Five states (Kentucky, Texas, Oklahoma, Colorado, and Virginia) participated in this project and mailed surveys to a representative sample of primary caregivers of youth with serious emotional disturbance; who had received at least one mental health service from a state-funded mental health provider within the last six months. All states used a mail survey methodology that included a cover letter explaining the purpose of the survey and requesting participation. A total of 1,556 surveys were returned, with state response rates ranging from 11% to 33%. Response rates were best for those states in which a reminder letter was sent after the first mailing, followed by a second complete survey packet two weeks later.

Principal Axis factor analysis confirmed the presence of five factors that were consistent with the proposed domains. Cronbach alphas for the YSS-F ranged from 0.73 for the Access domain to 0.94 for the Satisfaction domain, indicating good internal consistency. An additional question concerning perceived discrimination did not load on any other factors and was thus analyzed separately. Factors were evaluated as both continuous variables (using average score on constituent items) and as dichotomous variables. In analyzing factors as dichotomous variables, we defined good access to services, cultural sensitivity of staff, participation in treatment, overall satisfaction with services, and perceived improvement in child behavior, respectively, as an average of 3.5 or above on component questions.

Data were analyzed using SPSS version 10.1 (SPSS, Inc., 2001). The associations of dichotomous behavioral and functional outcomes to consumer characteristics and to consumer perception of services were assessed using logistic regression. We evaluated the relation of continuous outcomes to caregiver perception of services was using Pearson correlation analysis.

Results

In this sample, child age averaged approximately 12 years, and the majority of youth consumers were male (Table 1). The sample was racially and ethnically diverse, with 53% percent of youth identified as non-Hispanic White, 23% as Black, and 11% as Hispanic. Most were currently living with their caregivers (92%) and receiving Medicaid (74%). Seventy-five percent of youth consumers were still receiving services from the same provider, and 67% were on medications for emotional/behavioral problems. Caregiver surveys indicated that 46% of these children had experienced recent school absence (over 40% of whom were absent for four days or more), and 14% had been involved with the juvenile justice system within the last six months.

Several child characteristics were significantly associated with the outcomes evaluated (Table 1). Caregivers whose children were of Hispanic origin or were currently living with them were significantly more likely to report behavioral improvement, while those whose children were older, on Medicaid, or on medications for emotional/behavioral problems were less likely to indicate that

their child had improved. Conversely, caregivers whose children were living with them were less likely to report legal contact in the previous six months, while those whose children were older or on Medicaid were more likely to indicate legal contact. Caregivers of older children were also more likely to indicate recent school absence, whereas those whose children had seen a primary provider within the past year were less likely to report absence from school (Table 1).

Table 1
Association of Child Demographic Characteristics and Other Factors to Perceived Improvement in Child Behavior and Functioning, Child Legal Contact, and Recent School Absence

Child characteristics	Improvement in child behavior and functioning				Legal contact within last 6 months				School absence within last month			
	Total N	Yes (%)	No (%)	p	Total N	Yes (%)	No (%)	p	Total N	Yes (%)	No (%)	p
Race/Ethnicity				*								
Non-Hispanic white (reference category)	818	46.70	53.30	-	863	14.02	85.98	-	471	47.56	52.44	
Black	280	41.07	58.93		303	12.54	87.46		236	46.19	53.81	
Hispanic	154	56.49	43.51	*	165	14.55	85.45		150	42.67	57.33	
Other	87	42.53	57.47		92	14.13	85.87		43	60.47	39.53	
Gender												
Male	898	44.99	55.01		950	15.26	84.74		592	47.13	52.87	
Female (reference category)	497	47.89	52.11	-	529	13.04	86.96	-	342	45.61	54.39	
Age group (years)				*				***				
< 9 years (reference category)	304	52.96	47.04	-	315	3.49	96.51	-	177	36.72	63.28	***
9-12.9 years	501	43.51	56.49	**	534	7.87	92.13	**	349	42.69	57.31	
13+ years	542	45.20	54.80	*	571	26.97	73.03	***	375	54.67	45.33	
Currently living with caregiver												
Yes	1302	47.08	52.92	*	1376	12.28	87.72	***	872	46.56	53.44	
No (reference category)	93	34.41	65.59	-	103	38.83	61.17	-	67	41.79	58.21	
Receiving Medicaid												
Yes	1012	43.28	56.72	***	1073	13.05	86.95	*	558	48.21	51.79	
No (reference category)	368	53.80	46.20	-	392	17.09	82.91	-	362	45.58	54.42	
Still going to same provider												
Yes	1023	46.82	53.18		1087	13.16	86.84		672	47.32	52.68	
No (reference category)	349	44.41	55.59	-	367	16.89	83.11	-	261	43.30	56.70	
Contact with medical provider in last year												
Yes	736	47.55	52.45		793	15.51	84.49		749	49.67	50.33	***
No (reference category)	190	47.37	52.63	-	200	17.50	82.50	-	184	32.61	67.39	
On medications for emotional/behavioral problems												
Yes	953	42.71	57.29	***	1003	13.66	86.34		610	48.85	51.15	
No (reference category)	448	54.02	45.98	-	486	15.64	84.36	-	336	42.56	57.44	

† P values calculated using unconditional logistic regression analysis
 * p < 0.05 ** p < 0.01 ***p < 0.001

Perceived improvement in child behavior and functioning was strongly associated with all domains related to consumer perceptions of service (Table 2). Caregivers who reported involvement in the treatment of their child, cultural sensitivity of staff, good access to services, and overall satisfaction with services they had received were approximately 2 to 10 times more likely to indicate positive treatment outcomes than those who did not. Conversely, those who perceived discrimination by staff were less likely to report positive outcomes than were those who did not perceive discrimination. These associations remained strong after adjustment for age, race, gender, Medicaid status, child residential status, and child medication status. Additional adjustment for service status did not appreciably change these risk estimates.

Table 2
Association of Caregiver Perception of Services
to Reported Improvement in Child Behavior and Functioning

	<i>Improved child behavior and functioning</i>					
	<i>Yes</i>	<i>No</i>	<i>Crude Odds Ratio (95% CI)</i>	<i>p</i>	<i>Adjusted Odds Ratio++ (95% CI)</i>	<i>p</i>
Good access to services+						
Yes	536	498	2.39 (1.86-3.07)	***	2.37 (1.79-3.12)	***
No (reference category)	119	257			1.00	
Participation in treatment+						
Yes	554	462	3.67 (2.76-4.88)	***	3.72 (2.79-4.97)	***
No (reference category)	93	286	1.00		1.00	
Staff culturally sensitive+						
Yes	577	547	3.10 (2.26-4.23)	***	3.22 (2.28-4.55)	***
No (reference category)	61	179	1.00		1.00	
Satisfied with services+						
Yes	535	296	9.88 (7.39-13.20)	***	10.83 (7.86-14.93)	***
No (reference category)	71	388	1.00		1.00	
Perceived discrimination						
Agree/undecided	571	615	0.61 (0.45-0.82)	***	0.64 (0.46-0.90)	**
Disagree (reference category)	76	135	1.00		1.00	

+ Indicated by an average score of > 3.5 on component questions

CI: Confidence interval emotional problems

++ Odds ratios adjusted for age, race, gender, Medicaid status, child residential factors (state of residence and whether living with caregiver), service status, and child medication status (whether on medication for behavioral/emotional problems)

** $p < 0.01$ *** $p < 0.001$

Associations of child legal involvement and school absence to consumer perceptions of services were in the expected direction overall, although not as consistently strong (Table 3). Caregivers who felt discriminated against when trying to get services were significantly more likely to report child legal involvement. Recent school absence demonstrated significant associations with three of the four major domains of consumer perceptions of services after adjustment for demographic and other potentially confounding factors. Respondents who reported good access to services, involvement in their child's treatment, or overall satisfaction with services were significantly less likely to report recent school absence. Moreover, caregivers who reported improvement in their child's behavior were also significantly less likely to report school absence or legal contact, indicating a link between perceived behavioral change and these more objective community indicators.

When consumer outcomes and perceptions of service were evaluated as continuous variables, similar associations were observed (Table 4). Perceived behavioral change was correlated significantly with all domains of consumer perceptions of services, indicating that the more favorably a caregiver viewed the services provided to their child, the more positively they were likely to rate the child's outcome. Number

of school days missed was also negatively and significantly correlated with caregiver ratings in two domains: participation in treatment and overall satisfaction with services. In addition, perceived change in child behavior was also significantly correlated with school days missed, again demonstrating a link between reported behavioral change and community indicators. Additional adjustment for demographic factors and other child characteristics did not appreciably alter these associations.

Table 3
Association Child Legal Involvement and Recent School Absence and to Caregiver Perception of Services and Reported Improvement in Child Behavior and Functioning

	<i>Child in court last 6 months</i>				<i>School absence in last month</i>							
	<i>Yes</i>	<i>No</i>	<i>Crude OR (95% CI)</i>	<i>p</i>	<i>Adjusted OR++ (95% CI)</i>	<i>p</i>	<i>Yes</i>	<i>No</i>	<i>Crude OR (95% CI)</i>	<i>p</i>	<i>Adjusted OR++ (95% CI)</i>	<i>p</i>
Good access to services+												
Yes	146	944	0.78 (0.56-1.07)		0.74 (0.51-1.06)		319	395	0.70 (0.52-0.95)	*	0.67(0.48-0.93)	*
No	64	321	1.00		1.00		119	103	1.00		1.00	
Participation in treatment+												
Yes	147	918	0.84 (0.61-1.16)		0.98 (0.68-1.41)		310	387	0.68 (0.50-0.91)	*	0.70 (0.50-0.99)	*
No	63	332	1.00		1.00		122	103	1.00		1.00	
Staff culturally sensitive+												
Yes	160	1009	0.96 (0.65-1.41)		1.09 (0.68-1.75)		353	409	0.91 (0.64-1.31)		0.93 (0.61-1.40)	
No	36	217	1.00		1.00		67	71	1.00		1.00	
Satisfied with services+												
Yes	121	742	0.94 (0.68-1.29)		0.94 (0.66-1.36)		260	325	0.80 (0.60-1.07)		0.72 (0.52-0.99)	*
No	70	402	1.00		1.00		139	139	1.00		1.00	
Perceived discrimination												
Agree/undecided	163	1080	1.63 (1.13-2.35)	**	1.60 (1.04-2.45)	*	372	429	1.14 (0.79-1.64)		1.16 (0.77-1.74)	
Disagree	44	179	1.00		1.00		66	67	1.00		1.00	
Perceived improvement in child behavior and functioning												
Yes	73	568	0.62 (0.45-0.84)	***	0.59 (0.38-0.90)	*	171	233	0.59 (0.45-0.76)	***	0.57 (0.42-0.77)	***
No	129	622	1.00		1.00		267	213	1.00		1.00	

+Indicated by an average score of > 3.5 on component questions

CI: Confidence interval OR: Odds ratio

++ Odds ratios adjusted for age, race, gender, medicaid status, child residential status (living at home vs not living at home), child medication status (whether on medication for behavioral/emotional problems), and state of origin

* $p < 0.05$ ** $p < 0.01$ *** $p < 0.001$

Table 4
Correlation of Consumer Satisfaction Domain Scores with Outcome Measures+

	<i>Improvement in child behavior and functioning</i>		<i>School days missed</i>	
	<i>r</i>	<i>p</i>	<i>r</i>	<i>p</i>
Access to service	0.33	***	-0.08	
Participation in treatment	0.40	***	-0.10	*
Cultural sensitivity	0.33	***	-.05	
Satisfaction with services	0.63	***	-0.14	**
Perceived discrimination	-0.12	***	-0.01	
Improvement in child behavior/functioning			-0.29	***

+ Calculated using Pearson correlation analyses * $p < 0.05$ ** $p < 0.01$ *** $p < 0.001$

Discussion

It has been argued by several investigators that the value and utility of consumer surveys and other indicators of mental health service quality depend at least in part on the strength of their relation to therapeutic outcome (Bickman & Salzer, 1997; Noser & Bickman, 2000; Salzer et al., 1997; Srebnik et al., 1997; Williams, 1994). In this large, population-based survey, we found that all domains of caregiver perceptions of child mental health services were strongly and positively associated with perceived improvement in child behavior and functioning. Positive caregiver perceptions of services were also associated, although less strongly and consistently, with reduced child legal contact and school absence.

Despite the limitations of caregiver-reported change in symptoms and of single informant determination of outcomes (Lambert et al., 1998), using perceived improvement as a measure of child therapeutic outcome carries certain practical advantages over clinician-rated pathology change. The survey can be completed quickly and administered readily via the mail or telephone, with minimal burden to either the consumer or the provider. Caregiver reported improvement may also reflect the symptom and functioning changes that are most important to the individual family/client. Moreover, caregiver ratings of child behavior and functioning in this study were strongly related, in the expected direction, to other, more objective community indicators of child functioning, including child legal involvement and school absence, suggesting that positive caregiver reports are likely to at least in part reflect actual clinical improvement.

In brief, the findings of this study suggest that the YSS-F may provide a relatively comprehensive and cost-effective tool for assessing both the quality and the effectiveness of mental health treatment for children, and ultimately prove useful in planning, monitoring, and directing child mental health services. The YSS-F was developed and piloted in close collaboration with consumers and their families, helping to ensure that the survey addressed service issues, concerns, and outcomes specifically relevant to this group. The survey measures several key domains of caregiver perceptions of services, allowing the evaluation of multiple attributes of children's mental health services and service delivery. The present study has shown the YSS-F to be an internally consistent and relatively comprehensive instrument that can be readily administered in a broad range of settings and populations. Perhaps most important, the outcome domain appears to provide a meaningful perspective on the effectiveness of mental health services for youth.

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Assessment of Caregiver Service Experience at the Practice Level in System-of-Care and Non-System-of-Care Communities

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Introduction

Within systems of care, services should be planned with the family's full involvement, shaped by the needs and preferences of the child and family, draw on child and family strengths, be culturally appropriate, be provided in least restrictive frameworks, and be accessible within the child's and family's community. To support coordinated service provision, providers should collaborate around the family's service plan. Although much is known about systems of care, there continues to be a limited understanding of service effectiveness at the individual level (Farmer, 2000) and the consistency of service delivery according to system-of-care principles which may impact positive outcomes (Bryant & Maxwell, 1997). Assessing service delivery at the practice level can provide information about implementation fidelity with regard to congruence between the service program design and family experiences, the extent to which planned services are delivered, and the extent to which providers' practices reflect program design. Stephens, Holden, and Hernandez (2001) examined the relationship between changes at the level of the service delivery system and individual outcomes for children and families. They found that more consistent service experiences of children and families in systems of care were associated with more consistent child outcomes.

In the second controlled comparison study of the national evaluation of the Center for Mental Health Services Comprehensive Community Mental Health Services for Children and Their Families Program, a substudy examining treatment adherence was added to the multi-level evaluation design to examine the congruence between treatment plans and actual service experiences of children and families, and factors that may impact treatment adherence. Both caregivers and providers give their perspectives about shared service experiences, including adherence to system-of-care principles, difficulties encountered in service delivery, and factors impacting child outcomes.

Method

Participants are caregivers of children receiving services for serious emotional disturbance in two funded and two matched comparison communities and the children's primary service providers (i. e., the person most familiar with this family's services). Eligible families are recruited at the end of their baseline interview for the comparison study. After a family consents to participate, and gives approval for their service provider's participation, initial in-person interviews are conducted separately with the child's caregiver and provider following the family's initial treatment planning meeting. In total, 200 caregivers and matched service providers will be recruited into the substudy (50 in each community). For this analysis, data from a preliminary sample of 37 caregivers and their children's service providers were examined.

In the initial interview, caregivers and providers are asked similar questions about treatment planning, planned services, issues encountered, and attributions related to child outcomes. Following this interview, caregivers keep a biweekly diary of their service experiences, and providers keep a similar log of service experiences and service coordination activities for 16 weeks. Biweekly telephone interviews conducted with caregivers and providers assess these experiences. Service data are also abstracted from case records following the completion of the interviews.

Results

Sample Characteristics

Children averaged 12 years in age, and were mostly boys (69.4%). About 62% of the children were White, 30% were African American, and 8% were of other racial backgrounds. About 3% were of Hispanic origin. Most children were in the custody of their mothers only (47.2%); 30.6% were in the custody of two parents, 13.9% were wards of the State, and 8.4% were in other types of custody. Two-thirds of all annual family incomes were below \$25,000, with 39.4% below \$15,000. Providers averaged 36.1 years in age and were mostly female (86.9%); 66.7% were white, 25% were African American, and 8.3% were Hispanic. Over half (52.8%) of providers reported a master's degree as their highest degree, with an additional 2.8% having a doctoral degree; the remaining 44.4% had bachelor's degrees. Length of service provision to children ranged from 6 months to 38 years.

Most children were referred to services from mental health agencies (systems of care: 57.1%; comparison: 47.8%); more children were referred from juvenile justice agencies in systems of care (35.7% versus 8.7%) and more were referred from child welfare in comparison communities (26.1% versus 7.1%). A greater percentage of children in system-of-care communities (79%) had received services in the past 12 months than those in comparison communities (57%). Although many caregivers reported positive past experiences with services for their children in both types of communities (system of care: 64%, comparison: 58%), past negative experiences were more often reported in comparison communities (system of care: 27%, comparison: 42%); 9% were neutral in their assessment of system-of-care communities.

Service Planning Meeting

In both types of communities, parents and children were often present at service planning meetings. However, in systems of care, family advocates, other family members, case managers, primary therapists, and representatives from education were more often present. Because more children were wards of the State in one comparison community, representation from child welfare was higher in this community at treatment planning meetings.

Caregivers and providers across both types of communities generally agreed that child and family goals were discussed in treatment planning, with discussion of child goals reported by 91.7% of caregivers and 97.2% of providers, however discussion of family goals was reported by only 36.1% of caregivers and providers. More caregivers reported discussion of child strengths (83.3% versus 75% of providers), however fewer caregivers reported discussion of family strengths (66.7% versus 72.2% of providers), and family culture (66.7% versus 86.1% of providers). More caregivers than providers reported problems with the service planning meeting in systems of care (53.8% versus 27.3% in comparison communities), however the types of reported problems, such as scheduling, no shows, child or family member unwilling to participate, and the planning of services without family input spanned both types of communities. Double the number of providers in systems of care reported coordination with other providers (79% versus 40% in comparison communities), while sharing of service records was reported with similar frequency in both types of communities (systems of care: 57%, comparison: 55%).

There were some differences in the percentage of caregivers and providers reporting that positive changes in the child's problems would be *mostly* or *completely* due to services, providers, caregivers, or the child. Caregivers were more likely to report that change was due to providers' efforts (52.8%, providers: 31.4%), and providers were more likely to report that change was due to the child's efforts (65.7%, caregivers: 53.9%).

Discussion

Examining the service planning process is only the first step toward examining treatment adherence. The application of system of care principles in early service experiences through the integral participation and leadership of family members in the treatment planning process and treatment decisions should, according to the system-of-care framework, impact the service experiences of children and families so that there is greater adherence to services, greater satisfaction with services, and better child and family outcomes. During the first 16 weeks of services, as these families are followed in the substudy, information will be gained about factors that may derail even the best service plans. For example, caregivers may not be able to continue with initial providers due to changes in benefits for services. Difficulties encountered in getting to services, or issues that arise in the context of specific services may lead to the disruption of services. Differences in perspectives by caregivers and providers about factors that interrupt service provision may also provide useful insight into adherence.

Based on the preliminary data presented here, some differences in caregiver and provider perceptions of the treatment planning process are observed. Expectations about service delivery by caregivers in systems of care may differ from those of caregivers in comparison communities with little knowledge of other service options. Providers in system-of-care communities are indicating greater collaboration, a guiding principle of systems of care, than those in the comparison communities. Reported differences in caregiver and provider perspectives about factors influencing changes in children's behavior may reflect differences in expectations about the treatment process, a factor that may also impact adherence. As this study progresses, more data will be available for detailed examination of both site and respondent differences.

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The Child and Family Experience of the Mental Health System Study at Nine Months

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Introduction

The Child and Family Experience of the Mental Health System study was designed to meet a need for information from family perspectives about the general impact of policy and services and about the specific aspects of services that are most and least helpful. A qualitative, longitudinal design was developed to examine the experiences of families as one of their children enters and progresses through the mental health system and to understand the decision-making of families around both help-seeking behavior and treatment continuation. This study will provide data from the experiences of families with the mental health system, which has been found to improve the quality and effectiveness of service delivery (Friesen, Koren, &, Koroloff, 1992; McNaughton, 1994; Reimers, Wacker, Derby, & Cooper, 1995). And, it will apply and test the qualitative methodology for gathering information from the perspectives of families that can help to examine policy impact. The purpose of this paper is to briefly describe the methodology, the characteristics of the families participating in the study, and to present findings from the interviews conducted during the first nine months of the study.

Method

The methodology utilizes a longitudinal, case study design, with naturalistic inquiry. This approach was selected to compliment traditional approaches to examining family perspectives that are largely cross-sectional and quantitative, relying heavily on the use of standardized measurement instruments and rating scales of consumer satisfaction (Harris-Kojetin, Fowler, Brown, Schnaier, & Sweeny, 1999). The study method allows for examination of sequential events and episodes of care, the short and long-term effects of specific aspects of services, and decisions families make regarding those services. (Comer & Fraser, 1998; Edgeman-Levitan & Cleary 1996 as cited in Cleary, Edgeman-Levitan, 1997; Lazear, et al., 2002).

Family members are important research partners in all aspects of the study, from study design, to participant recruitment and interviewing, to data inputting and analysis, and contextual and descriptive reporting of the current system and service providers. Protocol instruments were developed with input from a nineteen Parent Protocol Review Team assembled at the Federation of Families for Children's Mental Health 12th Annual Conference, December 2000. A second Parent Review Team was convened at the Federation's 13th Annual Conference, November 2001 to review the progress of the study and to address its early findings.

Within Hillsborough County, Florida, families were recruited through two mental health treatment centers via their Family and School Support Teams (FASST), Family Service and Planning Teams (FSPT), local chapter of the Federation of Families for Children's Mental Health (FFCMH), Child Find, and by word of mouth. Participants include 36 families who are early in the process of seeking mental health services for their child. There are 24 high frequency contact families (HFC) and 5 low frequency contact families (LFC). HFC families are contacted by telephone and interviewed every other week for the first two months; every four weeks for the next two months; and, every three months for the remaining 20 weeks. Interviews are conducted in-person at the first interview, and at 12 and 24 months. All other interviews are conducted over the telephone. LFC families are contacted over the telephone for an initial interview, and later at 12 months, and at 24 months. All interviews are audiotaped with consent of the interviewee. All interviewees receive \$25 for each in-person interview and \$10 for each telephone interview.

Findings

Interview questions were designed in the context of findings showing a gap between a family's identification of a problem with their child and seeking help from child mental health providers (Burns, et al., 1995; Leaf et al., 1996; Lardieri, Greenbaum, & Pugh, 1996), high dropout rates from treatment (Kazdin, Holland, & Crowley, 1997), and the inadequacy of traditional approaches to establishing treatment effectiveness in capturing the perspectives of children and families receiving services (Friedman, 2001).

Participants were asked the age of the child when a problem was first noticed (children in the study were between the ages of 4 and 13). Thirty-one percent first noticed their child had a problem during their child's first year of life. Twenty-three percent noticed problems when their child was between the ages of one and two years, and another 37% noticed when their child was between three and five years. Also, 9% noticed their child had a problem when the child was 11 years of age. For more than 75% of the participants, there was a gap of at least two years between when they first noticed there was a problem and when they first received help from school or mental health services.

Early findings suggest that the ability of a caregiver to independently and aggressively seek services is often the key determinant in how and whether a service is identified and ultimately used. It was not unusual for study participants in the first nine months to report no less than 30 service supports either contacted or used to help or obtain help for their child. In the nine months of data collection, early findings also suggest that the pathway to services is often through other than the mental health system. As can be seen in Figure 1, Helen and Sam's Pathway to Services has been through a neurologist, the school, and juvenile justice and the courts. And lastly, participant-caregivers expressed their experiences in seeking, obtaining, and continuing in services as often becoming a part time to full time job.

Figure 1
Helen and Sam's Pathway to Services

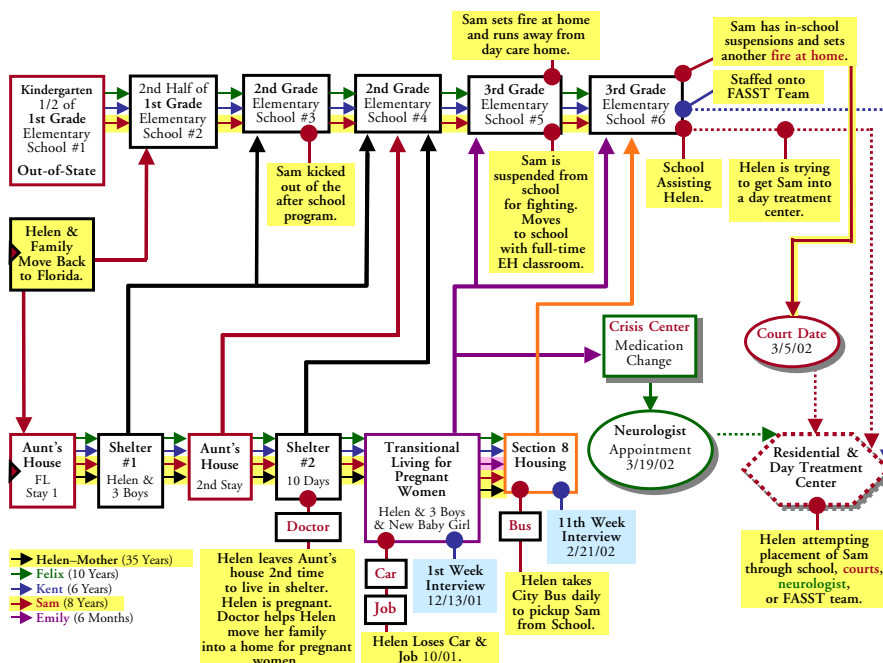
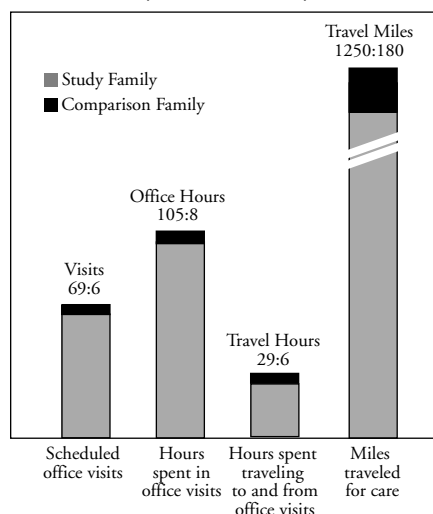


Figure 2 illustrates the experience of one caregiver as she obtained treatment for her son, compared to a caregiver whose child was not in need of services for a behavioral or emotional disorder over a 10 month period. Figure 2 looks at number of visits (69 for study family, 6 for the comparison family), number of hours in office visits (105 hours for study family, 8 hours for comparison family), time traveling to and from appointments (29 hours for study family, 6 hours for comparison family), and, number of miles traveled for care (1,250 miles for study family, 180 miles for comparison family). One parent stated: “My son had recently said to me, ‘Mom, I have a new disability.’ We were riding down the road. I’m like, ‘Could you explain it to me?’ He says, ‘Well, I didn’t want to tell you because you’re so busy with my other disabilities.’ And, he is so aware. I mean, this is where I spend most of what should be my family life, in this folder and on the phone trying to get help for his multi-disabilities.”

Figure 2
Time and Travel
(Ten Month Period)



Conclusion

Further questions to be addressed in the final phases of the study include: What is the unique experience of families of color who have a child with a serious emotional or behavioral disorder to seek, obtain, remain in or terminate services (50% of the participants identify themselves as Caucasian, 23% identify themselves as African American and 27%, Latino); what services and supports do families find most helpful; and, how have federal policies and programs and local implementation efforts intended to serve children and families actually impacted their lives (63% of the families are single parent households (single mothers), with 23% two-parent households and 14% other household arrangements, with 81% utilizing Medicaid for their child’s health care coverage).

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The Relationship between Caretaker's Perceptions and Children's Self-Perceptions of their Strengths

**Philip Friedman
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Introduction

Researchers interested in assessing children's behaviors stress the importance of obtaining information from multiple sources. However, agreement between sources is limited by situational variances in children's behaviors and by informant differences (Achenbach, 1993). For example, counselors and psychologists may see competencies, particularly in the social and interpersonal areas, which may be masked within a classroom environment and not as evident to teachers (Friedman, Leone, & Friedman, 1999). While there is a growing body of literature on the consistency of measuring children's strengths by adult raters, there is little evidence of the relationship between these adult perceptions and the child's own perception of his/her strengths.

Epstein and Sharma developed the Behavioral and Emotional Rating Scale (BERS; 1997), which is a strengths-based instrument that allows for such a multiple assessment approach. Any adult familiar with the child, such as teachers, counselors, and parents, can complete the instrument in about 10 minutes. However, this instrument has never been used to allow the child to give an indication of his/her own strengths.

The purpose of this study was to determine the consistencies and the differences between parents and their adolescent aged children when rating the adolescent's strengths. All of these children were placed in an alternative school for committing a serious behavioral transgression. The study was designed to give information about the consistency between adult's and children's perceptions of strengths and competencies. To achieve this end, data from teachers and children were evaluated to determine whether ratings by these different informants reflect the same underlying theoretical construct (convergent validity). A second focus of the study was to assess possible differences between adult perceptions and the self-perceptions of adolescents' strengths.

Method

Subjects

Sixty African-American children who were suspended from Washington, D.C. area public schools for serious behavioral transgressions and placed in an alternative school participated in this study. Criteria for inclusion were a BERS completed by both the parent and the child during the school intake procedure. The children ranged in age from 14 to 18 years, and were enrolled in grades 9 through 12. These students lived within the inner city and were members of various structural family units including single parent, extended, and traditional nuclear families.

Materials

The BERS is a 52-item instrument designed to assess strengths in children ages 5-18 in five categories: Interpersonal Strengths, Family Involvement, Intrapersonal Strengths, School Functioning, and Affective Strengths. The rating for items within all five subscales is made on a 4-point Likert-type scale. Information from the BERS is useful when evaluating children for pre-referral services and when placing children for specialized services.

Statistical Design

Internal consistency reliabilities of the individual subscales were extremely high and were consistent with the published normative data, ranging from .82 to .93 for the caretakers and .86 to .93 for the adolescents. This allowed for an analysis of variance design to test for differences by subscale and respondent group.

A randomized block analysis of variance was computed. Scores on the subscales were standardized to allow these comparisons to be made. Where significance was observed, a series of post-hoc tests was computed to further analyze the differences. Graphical displays were drawn to help explain significant interactions between raters and subscales.

Results

Analysis of Subscale Means

Raw scores were converted to standard scores in order to make ratings comparable across subscales and between raters. These standard scores have a predetermined mean of 10 and a standard deviation of 3 for each subscale. It is important to note that Epstein, author of the BERS, provides normative scaling by gender but not by age or grade level.

The resulting means and standard deviations for each subscale by rater are shown in Table 1. A *t*-test comparing caretakers' and children's perceptions are also displayed.

Table 1
Descriptive Statistics for Parents and Adolescents on the Five BERS Subscales

Teachers	Parents		Adolescents		<i>t</i>
	Mean	SD	Mean	SD	
IS	13.81	3.33	13.68	3.85	0.20
FI	13.80	3.53	12.53	4.06	1.82
IaS	14.73	3.64	14.81	4.53	-0.11
SF	12.71	3.72	13.06	4.00	-0.50
AS	13.13	3.73	12.81	3.92	0.45

Note: IS = Interpersonal Strength; FI = Family Involvement; IaS = Intrapersonal Strength; SF = School Functioning; AS = Affective Strength.

Table 2
Analysis of Variance of Standardized Strength Scores by Subscale and Rater

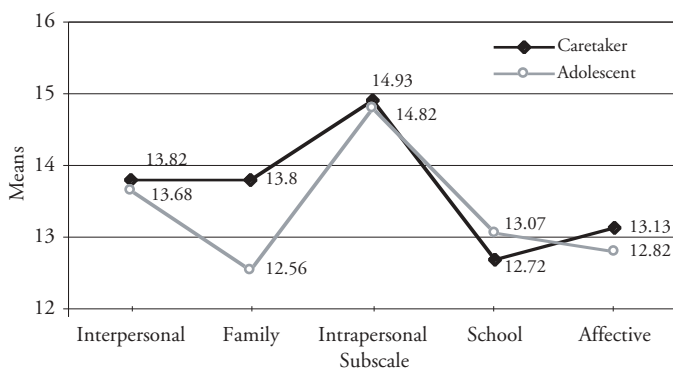
ANOVA Summary Table					
Source	SS	df	MS	F	<i>p</i>
Block	4420.82	59			
Rater (R)	9.88	1	9.88	0.22	0.64
R x Block	2638.42	59	44.72		
Subscale (S)	293.31	4	73.33	17.56	<.001
S x Block	985.29	236	4.17		
R x S	45.68	4	11.42	3.95	.004
R x S x Block	682.52	236	2.89		
Total	9075.92	599			

There was a great deal of consistency in ratings by the two respondent groups. The mean scores for both the caretakers and the adolescents were considerably higher than published norms. The caretakers had higher means on interpersonal strengths, family involvement, and affective strengths. The adolescents had higher means on intrapersonal strengths and school functioning. A series of *t*-tests did not reveal any significant differences between the raters on any of the subscales.

A 2 (rater) x 5 (subscale) randomized block factorial analysis of variance was used to examine differences in mean standardized strength scores. Both the rater and the subscale variables were considered as within group factors. Results of the ANOVA are shown in Table 2.

There were no significant differences in strength ratings between the two respondent groups. The significant main effect of subscale was partly the result of both respondents rating children higher on intrapersonal and interpersonal strengths than on other strength subscales. As is shown in Figure 1 below, parents rated their children higher in family involvement while children rated themselves higher in school functioning resulting in a significant rater x subscale interaction.

Figure 1
Comparison of Caretaker and Adolescent
Means on the BERS Subscales



Discussion

The findings suggest that the overall assessment instrument is comprehensive. It appears that the BERS is an important test that can be used by either parents or the adolescents themselves to get an indication of a child's strengths. In addition, if both respondents complete the form, each rater may provide important information that might be missed by the other.

The ANOVA results showed significant convergent validity between raters. However, ratings from both parents and adolescents contained significant amounts of variance and correlated highly with the total subscale score. Therefore, the scores may be considered valid indicators of the different strength dimensions measured on the BERS. Establishing such consistency among caretakers and their children supports the use of a multi-source approach to assessment of children's strengths.

In addition, analysis of the subscale means revealed sources of differences or uniqueness in responses by different informants. Caretakers rated children higher on specific family involvement items, and adolescents gave themselves higher scores in school functioning. This resulted in a significant rater x subscale interaction.

There is no question as to the importance of showing strengths that span diverse situations. However, significant situational factors may also play a role in the determination and assessment of a child's strengths. That is, there may be real differences in the same behaviors as observed by parents and their children. For example, a child's behaviors within the home may be completely different than in the child's peer environment, where other activities become more important.

For researchers interested in building or testing theories of applying strength information to the education of children with behavioral disorders, it is apparent that the child's own perceptions must be considered. In this way more unbiased estimates of the strength concept may be obtained.

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Out of Sight, Out of Mind? Perspectives on Parent-Child Contact During Residential Treatment

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Introduction

The Family Participation Survey was a national cross-sectional study of families whose children received treatment for their emotional, behavioral, or mental disorders while living at home or in out-of-home placement. The questionnaire addressed topics such as education and treatment planning and review, caregiver empowerment, and involvement in decisions about the child's daily life. This analysis examines parents' experiences with maintaining contact with their children receiving out-of-home mental health care.

Rationale for Family-Child Contact

The rationale for promoting contact between children in out-of-home placements and their families includes theoretical support, evidence from the research literature, and a rights perspective. First, support for parent-child contact is rooted in concepts from attachment and bonding theory (Bowlby, 1969). In the research literature, while studies in children's mental health are infrequent, there is considerable evidence in favor of maintaining and supporting contact in the child welfare and medical literature. Benefits of parent-child contact in child welfare include more rapid family reunification (Benedict & White, 1991; Davis, Landsverk, Newton, & Ganger, 1996) and enhanced child well being (Cantos, Gries, & Slis, 1997; Davis et al., 1996). In the field of medical treatment, there is evidence that children are less distressed when parents have consistent and active participation in therapeutic procedures (Jones, 1994). Finally, parents of children receiving residential treatment retain all rights regarding their children unless the court has ordered otherwise (Hardin, 1985; McFadden, 1985).

Method

Sample

Eligible participants were parents or other caregivers with primary responsibility for youth aged 0 to 20 who had received three months or more (in-home) or 30 or more continuous days (out-of-home) of treatment for their emotional, behavioral, or mental disorders between 1996-1998. Respondents were recruited from randomly selected chapters of the Federation of Families for Children's Mental Health and from the mailing list of the Research and Training Center for Family Support and Children's Mental Health at Portland State University. Data collection occurred in 1999-2000. This analysis focuses on a subset of the sample, and includes 102 children who received out-of-home treatment in one of three settings: residential treatment centers (66.7%), psychiatric hospital/units (20.6%), and group homes (12.7%).

Most respondents were White, married, well-educated females with incomes above those of the general population (see Table 1). About three-fourths of the children were boys, and 80% of the children were White. Of the 34% who had more than one out-of-home placement during the 2-year study period, the average number of placements was 2.7 ($SD = 1.1$).

Measures

Parents were asked to indicate on a four-point scale (from *never* to *daily*) how often they spoke with their child by telephone and the frequency of visits on-campus, away from campus visits, and at home. Parents were also asked about restrictions on contact immediately after placement and thereafter, and whether contact was dependent on the behavior of the child, other children in the

Table 1
Sample Characteristics

<i>Parent</i>				
	<i>Percentage</i>	<i>Mean</i>	<i>SD</i>	<i>Range</i>
Age		45	6.8	29-67
Income Per Year		\$35K – 44K (<i>Median</i>)		\$5K – 75K+
Education				
≤ HS Diploma/GED	13.7%			
Business/Trade/Some College	33.3%			
≥ College Degree	53.0%			
Sex				
Female	92%			
Marital Status				
Married/Married-like living arrangement	62%			
Race				
Caucasian	90%			
African American	8%			
Native American	2%			
Relatedness				
Biological/adoptive mother	87%			
<i>Child</i>				
	<i>Percentage</i>	<i>Mean</i>	<i>SD</i>	<i>Range</i>
Age		14 yr	3.1	7-21
Onset Age		6 yr	3.8	1-16
Age received 1 st services		7 yr	3.7	2-16
Number of diagnoses		3.8	1.99	1-9
Severity index		13.6	4.9	5-25
Sex				
Male	73%			
Race				
Caucasian	80%			
African American	9%			
Hispanic	3%			
Native American	2%			
Multiracial	6%			

treatment unit, or on parent participation (e.g. in family therapy). A severity rating scale was created by adding the number of diagnoses reported and the number of years the child had been experiencing difficulties. Higher numbers indicated greater severity.

Procedure

Standards, administrative rules, and guidelines. We reviewed documents from national accrediting bodies including: (a) the Council on Accreditation (COA; 2001), (b) the Joint Commission on Accreditation of Health Care Organizations (JCAHO; 1999, 2002), and (c) the Rehabilitation Accreditation Commission (CARF; 2001). Other documents reviewed included three from the United Nations (UN) that address the rights of all children and youth to receive appropriate treatment (1975; 1989; 1990). We also reviewed practice guidelines for out-of-home placements published by the Child Welfare League of America (CWLA; 1991) and administrative rules from Oregon, Colorado, and Massachusetts. Parent experiences were then examined in light of these documents.

Results

Parent-child contact. The rights of children to maintain contact with their family are noted in guidelines and international standards. For example, “Every child has a right to private familial and significant other contact” (CWLA; 1991, p. 125-126) and “States’ parties shall respect the right of the child who is separated from one or both parents to maintain personal relations and direct contact” (UN, 1989, article 9.3).

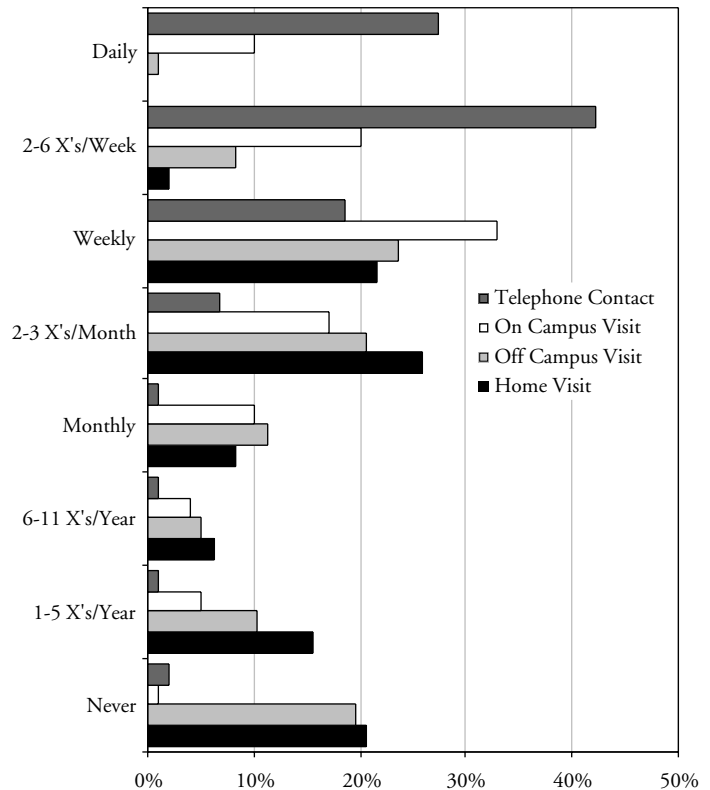
Nearly 60% of respondents said contact was limited for an initial period of adjustment; this period ranged from one to eight weeks at the beginning of placement. More than 30% of respondents said that visits were restricted for the first four weeks. There were no significant differences in length of initial limits based on child age or type of placement. A follow-up question asked parents to state the reason(s) they were given by agency staff for the restrictions they experienced. The primary explanation reported was that the child “needed time to adjust,” or to “settle in.” The second most frequently mentioned reason was that visits and other forms of contact were considered a privilege that had to be earned, for example, a parent reported that her child was “not on level for visits.”

Telephone Contact and Visits. Accreditation standards speak to the right of children to have telephone conversations and visits with family members. For example, Colorado’s (2001) administrative rules read, “Each client may see his/her custodial parent or his/her children at any time” (Rule #8.765.442K).

Of the different forms of contact, telephone contact occurred most frequently with 69.7% of parents reporting telephone contact twice a week or more (see Figure 1). Day visits on campus and away-from-campus were reported as occurring on a weekly basis by 33% and 23.7% of parents respectively. Home visits were slightly less frequent with 21.6% of parents reporting weekly home visits. Further analyses of results indicated that younger children had more contact than older children ($r = -.289, p < .01$) as did those in facilities closer to home ($r = -.255, p < .05$).

Restrictions on Contact. The Council on Accreditation (COA; 2001) permits restrictions on contact only when the “restriction is based on contraindications in the service plan or applicable court order” (p. 8). Restrictions are to be documented, approved in advance, reviewed regularly, fully explained to clients, and determined with the participation of the client, and family when appropriate.

Figure 1
Frequency of Parent-Child Contact
After Initial Period of Adjustment



Over 79% of parents reported at least one type of restriction on contact and 51% reported restrictions based on the application of point and level systems to manage children's behavior. Children with more types of restrictions had significantly less contact with parents ($r = -.299, p < .01$). Fifty-nine percent of parents reported that contact was dependent on their child's behavior, 12% were required to participate in educational/therapeutic services as a condition for contact, and 16% reported that contact was dependent on the behavior of other children in the living unit.

Discussion

This analysis focused on caregiver experiences with maintaining contact with their children in out-of-home mental health treatment. We found that contrary to guidelines for best practice, the majority of parents in our sample reported some form of restriction on contact. We also found that the amount of parent-child contact varied by the child's age and the distance from the child's home to the treatment facility. Children with limits on more types of contact had significantly less contact with their parents and age was not a factor in the length of initial restrictions on contact.

The findings are limited in their generalizability due to sample size and characteristics. Caregivers who participated were less ethnically diverse; more affluent, and better educated than the general population and, therefore, may not be representative of parents of children with serious emotional disorders. However, there is no reason to believe that parents with less education and less money would have fewer restrictions and more contact. Further research is needed with larger samples and with diverse participants to provide a fuller understanding of family-child contact in out-of-home treatment.

For this sample of parents and their children, policies and practices in out-of-home placements were not completely aligned with current theory and research evidence regarding the importance of maintaining family-child contact. Policies and practices regulating family-child contact should be developmentally appropriate and designed to preserve and promote family bonds (Colorado State Department of Health Care Policy and Financing, 2001). Family-child contact should not be dependent on the child's behavior or other contingencies, as many participants reported in this study. Further, it is the responsibility of administrators and practitioners to use research findings to identify strategies to facilitate family-child contact as an aspect of developing family-centered treatment approaches.

During the time frame that the study data were analyzed (2002), JCAHO has proposed changes to its accreditation standards. Of particular relevance to this study are requirements to: (a) inform individuals and, as appropriate, families, about their use of behavioral support interventions at the time of admission; (b) individualize procedures by which residents move through system levels; and (c) prohibit the use of group contingencies based on a single individual's behavior.

This study points to the importance of assuring adherence of treatment facilities to existing and proposed standards that address the importance of individualized treatment and incorporate supports for family-child contact throughout residential placement.

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Caregiver's Level of Trust in Their Children's Health Care Providers

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Introduction

Background. Studies suggested that clinicians' practice behaviors are related to patients' discontinuing treatment (Safran, Montgomery, Change, Murphy, & Rogers, 2001). Few studies have been conducted to identify the effect of a trusting relationship with treatment providers on patients' health care outcomes. The results of these studies indicated that the trust in one's health care provider is significantly related to positive health outcomes in both general and disability adult health care consumers that include increased treatment adherence, remaining with the same provider, and increased levels of satisfaction with services received (Chen, 2001; Thom & Campbell, 1997; Thom, Ribisl, Stewart, & et al., 1999). However, no studies to date have specifically examined the level of trust that caregivers of dependent children have in their children's health care providers. Children with disabilities have complex health needs that may impose a certain degree of strain and stress on their caregivers and depend on health care providers to advocate their children's health needs. A trusting relationship between caregivers and their children's health care providers is particularly important in providing quality of care to meet the health care needs of children with disabilities.

The Surgeon General's report on mental health notes that between 40 and 60% of families who begin treatment terminate it prematurely (Armbruster & Fallon, 1994; Kazdin, Holland & Crowley, 1997). The report further acknowledges that most of the research to date has focused exclusively on demographic and diagnostic correlates of dropping out with almost no research focused on other factors. In one qualitative study examining caregivers' and providers' expectations (Valey, Krone, & Gerbino, 1998), trust, honesty, and respect were identified by both caregivers and providers as essential ingredients for successful treatment. This finding raises questions regarding the extent to which caregivers' trust in their children's health care providers may be associated with dropping out of treatment.

The purpose of this study was to examine the differences in the level of trust among caregivers of children with and without severe emotional disturbances in their children's health care providers. Specifically, the study was intended to address three fundamental questions:

- What is the overall level of trust among caregivers of child Medicaid recipients in their children's treatment providers?
- Do caregivers of children with emotional and behavioral problems have a similar level of trust in their children's mental health providers compared to the level of trust that caregivers of children with health-related disabilities have in their children's health providers? How does the level of trust in treatment providers among caregivers of children with disabilities compare to the level of trust reported among caregivers of children without health or mental health problems?
- What variables are predictive of caregivers' level of trust in their children's health care providers?

Method

This study used mail survey techniques with a cross-sectional Medicaid sample to compare the level of trust in health care providers among the caregivers of children with emotional disabilities, physical disabilities, or without any physical or emotional disabilities.

Sample. A stratified sampling procedure was used to select potential subjects among Medicaid eligible children in 2000. All subjects were Florida Medicaid recipients from one of five regions in the state, were between the ages of 5 and 17, and were either receiving Supplemental Security Income (SSI) due to physical and/or emotional disability, exclusive of head injury or mental retardation, or were living in families receiving Temporary Assistance for Needy Families (TANF).

Questionnaires were mailed to caregivers of 6,493 children and responses were received from 2,487 respondents for a response rate of 38.3%. Respondents included 1,178 caregivers of Medicaid TANF children (47.4%) and 1,160 Medicaid SSI children (46.6%). Among these child Medicaid recipients, 58% (1,443) were male and their racial/ethnic distribution was 37.8% (939) White, 37.2% (925) Black/African American, and 25.1% (623) other race/ethnicities.

Instrument. The questionnaire collected demographic information on the children, the type of health plan in which they were enrolled, health care providers' practice specialty, level of trust, and level of satisfaction with services received. Demographic information was obtained from both self-report and Medicaid eligibility data files. Global satisfaction with services received was measured using a four-point Likert-type scale ranging from 1 = *not satisfied at all*, to 4 = *very satisfied*.

The Trust in Health Care Provider (TIHCP) scale was used to measure caregivers' level of trust in their children's health care providers. The TIHCP was revised from the Trust in Physician Scale (TIP), developed by Anderson & Dedrick (1990), by replacing the term *doctor* with *health care provider*. The TIHCP scale consists of 11 questions. The TIHCP uses a 5-point Likert-type response scale, with 1 representing *definitely agree* to 5 representing *definitely disagree*. A midpoint of 3 represents *neither agree nor disagree*. Scores range from 11, denoting a low level of trust in the identified health care provider, to 55, indicating a high level of trust. The TIHCP scale had similar psychometric properties as the original trust scale. Cronbach alphas ranged from .85 to .90 and the item-total correlations ranged from .39 to .87 (Chen, 1999).

Procedures. Data were collected following a five-step mailing procedure recommended by Dillman (1978) and Salant and Dillman (1994). First, a pre-notification postcard was mailed to inform potential respondents about the purpose of the survey and when it would arrive. It also included a toll-free telephone number they could call to get questions answered. One week later a mail survey package containing a cover letter, questionnaire (in both English and Spanish), and stamped pre-addressed return envelope, was sent to the caregivers of the children sampled. One week later a reminder postcard was mailed to non-respondents. A second complete survey package was mailed to non-respondents two weeks after the reminder postcard. This package also included a follow-up cover letter, both questionnaires, and a stamped self-addressed return envelope. Finally, four weeks later, a third complete mailing was sent to all non-respondents by certified mail that included a cover letter, a stamped self-addressed return envelope, and a questionnaire. Additionally, provisions were made to obtain mail-forwarding addresses and return information on all returned certified mails, such as refused, undeliverable, unclaimed, or deceased. A toll-free telephone number was provided to all potential participants for inquiries regarding the study or to complete the questionnaire on the phone. A Spanish-speaking staff person was available to take responses or to answer questions in Spanish. Every respondent who completed the questionnaire was sent a \$7.00 check after the completed questionnaire was received.

Data Analysis. Univariate statistics were performed to summarize the level of trust among caregivers. Analyses of variance and *t*-tests were used to identify differences among and between subgroups, such as the level of trust in health care providers of caregivers of children with different disabilities, different specialty of healthcare providers. Finally, regression analysis was conducted to identify predictors of caregivers' level of trust in their children's health care providers.

Results and Discussion

Data on 1,965 children met the inclusion criteria. These children ranged in age from 5 to 17 years old and had an average age of 11.9 ($SD = 3.24$). About 57.5% (1130) were boys, 39.1% (769) White, 37.6% (738) Black, and 23.3% (458) Hispanic and other minorities. 44.4% (872) received SSI and 55.6% (1093) were in families receiving TANF. In terms of health care plans, 31.3% of the children were enrolled in a fee-for-service (FFS) plan for both mental health and physical health care, 21% enrolled in an HMO plan for physical care with a mental health FFS plan, 12% were enrolled in a

mental health carve-out (Prepaid Mental Health Plan, PMHP) and 11% enrolled in a HMO plan for both physical and mental health care. There were 11.4% of caregivers who indicated that their dependent children did not have any health care providers.

Trust in the Health Care Providers. There were 1601 caregivers who rated their level of trust in their children's health care providers. Overall caregivers' average level of trust in their children's health care providers was 42.36 ($SD = 9.11$) and ranged from 11 to 55. The overall level of trust in their children's providers among these caregivers was high and was similar to the level of trust found in a general adult population (Anderson & Dedrick, 1990). The level of trust, however, was higher than the level of trust in health care providers among adult Medicaid recipients who had an average of 38.8 in their health care providers (Chen, 2001).

Trust and Health Care Provider Specialty. Among 1601 caregivers who rated their level of trust in health care providers, 124 caregivers rated on their trust in children's mental health care providers and 1,234 caregivers rated on their trust in children's physical health care providers, 63 caregivers rated on both physical and mental health care providers, 17 caregivers indicated that their children did not have any health care providers, and 163 caregivers did not specify the specialty of their children's health care providers. There were significant differences in caregivers' trust in health care providers with different specialty area (see Table 1). Caregivers reported significantly lower levels of trust in their children's mental health providers compared to either physical health providers, or provider meeting both their children's health and mental health needs.

Table 1
Caregivers' Trust and Health Care Provider Specialty

Type of Provider	N	Mean	SD	Range
Physical health care provider	1234	43.3	8.95	11 to 55
Mental health care provider	124	37.5	10.49	11 to 55
Both physical & mental health provider	63	41.4	9.06	15.4 to 55
No health care provider	17	38.4	6.09	29.7 to 51
Unspecified health care provider	163	39.6	7.47	21 to 55

Trust and Children's Disability Conditions. A total of 245 caregivers of children receiving SSI benefits due to mental health disabilities, and 176 caregivers of children receiving SSI for physical disabilities rated their level of trust in their children's health care providers. Additionally, a random sample of 246 caregivers of children receiving TANF without a disability was selected as a comparison group. Most of caregivers rated on their levels of trust in their children's physical health care providers. The levels of caregivers' trust in their children's health care providers were compared among the three disability groups. There were no significant differences among groups in caregivers' level of trust in their children's health care providers. ($p = .08$; see Table 2).

Table 2
Caregivers' Trust and Child Disability Condition

Type of disability	N	Mean	SD	Range
No Disability	246	43.23	9.46	11 to 55
Emotional Disability with/without physical disability	245	41.42	9.33	11 to 55
Physical Disability	176	42.50	8.17	19 to 55

Predictors of Trust. A regression analysis was used to explore what variables, if any, were predictive of caregivers' trust in their children's health care providers. Child characteristics (i.e., age, gender, race/ethnicity), provider type (physical versus mental health), type of health plan (managed care versus fee-for-service), and children's disability conditions (no disabled condition, emotional/behavioral, or physical disability) were entered using a forced procedure. Gender, race/ethnicity, and disability condition were not associated with caregivers' level of trust in their children's health care providers. The final model included three significant predictors and explained 21.7% of variance. These results are summarized in Table 3.

Table 3
Predictors of Trust

	<i>Unstandardized Coefficients</i>		<i>Standardized Coefficients</i>			<i>95% Confidence Interval for B</i>	
	<i>B</i>	<i>Std. Error</i>	<i>Beta</i>	<i>t</i>	<i>Sig.</i>	<i>Lower Bound</i>	<i>Upper Bound</i>
*Constant	41.922	1.365		30.719	.000	39.246	44.599
Trust in mental health care provider	-.956	.710	-.035	-1.346	.178	-2.350	.437
*Trust in physical care provider	3.621	.574	.162	6.312	.000	2.496	4.746
Mental /Emotional Disability	-.124	.599	-.005	-.208	.836	-1.300	1.051
Physical Disability	.120	.606	.005	.198	.843	-1.068	1.308
*Managed Physical Health Plan	-1.560	.439	-.084	-3.554	.000	-2.421	-.699
Managed Mental Health Plan	-.306	.485	-.015	-.631	.528	-1.256	.645
White	.388	.554	.021	.700	.484	-.699	1.475
Black	.473	.566	.025	.836	.403	-.637	1.584
Male	.327	.434	.018	.753	.451	-.524	1.177
*Age	-.178	.068	-.062	-2.634	.009	-.310	-.045

*Significantly associated with caregiver level of trust in their children's providers.

The child's age, provider's specialty as a physical health care provider, and being enrolled in a managed care plan for physical health were found to be significantly associated with caregivers' levels of trust in their children's providers. Caregivers reported significantly higher levels of trust in physical health care providers compared to mental health providers. Being enrolled in a managed physical health care plan was significantly associated with lower level of caregivers trust in their children's providers.

Caregivers of older children had significantly lower levels of trust in their children's health care providers compared to caregivers of younger children. This finding differs from results from an adult Medicaid population (Chen, 2001). As age increases, children's health/mental health needs become more complicated. Whether a provider can meet the child's health/mental health needs can be a challenge. This is an important component in building a trust relationship between caregivers and health care providers.

While examining the relationship between caregivers' trust in their children's health care providers and their satisfaction with health services received by their children, the results indicated that satisfaction with services was significantly related to trust. Pearson correlation coefficients were .456 and .479 with $ps < .05$ for physical care and mental health care respectively. Caregivers with higher levels of trust in their children's health care providers also reported higher levels of satisfaction with health services received by their children.

Conclusion

The overall results of this study indicated that the caregivers' trust in their children's health care providers were similar to general adult population (Anderson & Dedrick, 1990). The findings also suggest that overall caregivers of children have relatively high levels of trust in their children's health care providers. Caregivers reported higher levels of trust in physical health care providers compared to mental health providers. There were no significant differences in caregivers' level of trust in health care providers among caregivers of children with different disability conditions. However, a child's age was an important predictor of trust. As children grew older, they had more complicated health/mental health needs, especially those children with severe emotional disturbance. With a trusting relationship, caregivers will be more willingly to discuss their children's problems. Consequently, their children's health/mental health needs are more likely to be met, which results in greater levels of satisfaction with the health/mental health services provided to their children. Safran and his colleague (2001) indicated that practitioners' clinical behaviors affect patients' continuing a relationship with the providers. Although this study did not focus on providers' behaviors, building a trusting relationship largely depends on how health care providers interact with caregivers and the degree to which the services they provide meet the needs of the children.

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Family Members as Evaluators: Preliminary Results of a Training Curriculum

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Adjoa Robinson**

Introduction

Since the inception of the Child and Adolescent Service System Program (CASSP) sponsored in 1984 by the National Institute of Mental Health, the relationship between families with children who have serious emotional challenges and professionals who work with them has shifted slowly, but dramatically. Designed as a demonstration program, CASSP provided states with grants to help them develop an infrastructure capable of supporting community-based systems of care. One of the tenets of the CASSP initiative was the inclusion of families of children with serious emotional disturbance as partners in the planning, implementation, and evaluations of these systems.

This CASSP principle has helped support roles for family members on evaluation teams. In addition, a paradigm shift from researcher to family driven approach to evaluation and research has been gaining ground. Operationalizing this shift results in researchers and family members sharing responsibility for the work. Doing this requires more knowledge and skills about research and evaluation than family members typically have. The inherent power imbalance could render them nominal tokens on these teams. In order for family members to be significant contributors to the evaluation process, they need skills, knowledge, and information about evaluation methodology. As Mertens, Fareley, Madison and Singelton (1994) put it, training family members enables them to “take the leadership in social change” and to “not only advance knowledge, but enable ...diverse groups through their participation in defining problems, and selecting interventions to address problems, and in guaranteeing the success of social policy interventions.”

Recognizing the trend to include family members in evaluation, the importance of evaluation as a tool for changing systems, and the need for participating family members to be equipped, the Federation of Families for Children’s Mental Health developed an evaluation-training curriculum for families. The curriculum was conceptualized as a primer on how to understand and interpret evaluation processes and use the results to support change. Co-taught by a family member and an evaluator, this collaborative model has emanated from a value base that recognizes the expertise of both families and evaluators, their unique knowledge and skills, and the benefits of working together. The goal of the collaborative efforts, taken as whole, is to create a new and distinct way for addressing challenges in the children’s mental health service system, and to understand the experiences of those refining and providing services. This new role for families in evaluation is intended to place family members in positions where they assist in determining the topic and scope of study, as well as communicating results.

This paper discusses the preliminary results of the evaluation of the curriculum, “How To Understand Evaluation,” developed by the Federation of Families for Children’s Mental Health for family members of children with mental health needs. The purpose of the evaluation was twofold. First, we wanted to assess the effectiveness of that training curriculum. Second, we wanted to engage workshop participants in evaluation.

Method

The purpose of this study was to evaluate the effectiveness of the curriculum, “The World of Evaluation: How To Understand It” (Course 1) designed to teach family members how to become savvy consumers of evaluation studies. Specifically, we wanted to know:

- How participants rate the amount learned about key topics presented;
- Whether participants perceived changes in their ability to advocate;
- Whether participants perceived changes in their attitudes about working with evaluators;
- Whether participants perceived changes in their confidence about asking questions and voicing opinions about evaluation, and;
- How participants rated the value of their training experience.

Operating under the premise that “evaluation should serve the *needs of program consumers*” (Greene, 1997, p. 27), staff from the Federation of Families were full partners throughout development of the questionnaire and data collection process. Through this process, we developed a 14-item questionnaire (see Table 1). The quantitative measures asked participants to rate changes in specific skills and attitudinal changes on a Likert-type scale (1, *little or nothing*; 3, *some things*; 5, *a lot*). Qualitative items probed for specific examples related to the perceived changes as well as to the perceived value the training held for participants.

Participants from two different workshop presentations of the first course, “The World of Evaluation: How to Understand It,” were interviewed. These workshops were held over two-and-a-half days and covered topics such as the purpose of evaluation, stages in the evaluation process, understanding evaluation reports and articles, and the importance of role evaluation in advocacy. Collaboration was modeled by the use of co-facilitators, a family member and an evaluator, and the trainings were interactive and multi-method, using adult learning principles.

Sixty to 90 days after the trainings, participants who attended were sent a letter by the Federation of Families describing the evaluation of the training. This letter included a consent form they could sign and send back to the Research and Training Center on Family Support and Children’s Mental Health at Portland State University. Twenty-four of the 40 participants returned the consent forms and were contacted for a telephone interview. The 16 participants who did not respond either failed to mail in the consent form or responded after the interviews were completed. The interviews lasted about 30 minutes each. Quantitative items were coded and entered into SPSS 10.0. The qualitative data were entered into a qualitative database manager for purpose of coding recurring themes.

Results

Preliminary results showed that participants gained knowledge and skills related to understanding and using evaluation, gained confidence in voicing opinions about evaluation, and that their ability to advocate was affected by the training. From our interviews we found that:

- Forty-five percent of the participants reported that the training changed their confidence level *a lot*.
- Eighty-three percent of the participants reported that it had affected their ability to advocate. The qualitative answers indicate this was a positive change.
- Fifty percent reported that they learned *a lot* about how to use evaluation reports and articles.

Table 1
Sample Questionnaire Items

<i>Item type</i>	<i>Item</i>
Quantitative	On a scale from 1 to 5, how would you rate the amount you learned about the evaluation process?
Qualitative	As a result of the training, how has your attitude about working with evaluators or evaluators changed?
Probe	Tell me about some of the things you learned and how you’ve used them.

- Sixty-two percent of the participants rated their change in attitude about working with researchers a 4 (33%) or 5 (29%), indicating high levels of attitude change. The qualitative answers indicate this was a positive change. A preliminary analysis of the qualitative data revealed several themes. They are:
 1. *Developing confidence to ask questions.* For example, some participants mentioned that since the training they speak up and ask questions, ask about an evaluation if they don't understand, and are able to ask more knowledge-based questions.
 2. *Not feeling intimidated by researchers and evaluators.* Participants stated that evaluators seem less intimidating and more human (i.e., not just working with numbers and figures). The training provided them with questions to ask evaluators when the data come back, and they realized it is important to work with evaluators.
 3. *Increased ability to advocate on the family level and policy level.* Participants stated they experienced an increased level of confidence to advocate with families, an increased level of comfort in working with state level policy makers on system level changes, and an increased level of confidence in using information for testimony and explaining the information if asked questions.

During the course of the training, family members requested further opportunities to build their capacities in evaluation. They expressed their desire to put into practice the concepts and skills learned by direct involvement in the analysis of this interview data. As a research team, we felt that including them would be consistent with the collaborative nature of the evaluation and we were interested in the additional perspective they might bring to the interpretation.

As a result, family members who indicated interest had full access to the qualitative and quantitative data, absent identifying information. We did some preliminary analysis of the data and mailed this along with the narrative responses to opened ended questions, a tip sheet listing the steps of qualitative analysis process, and highlighting pens to participants who wanted to be a part of the analysis. We then arranged conference calls at two different times to discuss themes. In total, seven people participated in the calls.

Several lessons were learned from the conference calls. For example, it is difficult but not impossible to do qualitative analysis by phone. In the future we will explore the possibility of including the analysis of the interview data in the Course Two training. We also learned that the participants found it challenging to separate the "participant" hat from the "evaluator" hat. In the beginning many participants related to those answers that were most like their own experience in the workshop. We learned that a discussion is needed in the beginning to help participants distinguish between participant and evaluator roles. Lastly, while participants did not identify any different themes, they did select different examples that were important to describing the themes.

Conclusion

The preliminary results of the evaluation of Course One reveals that participants not only gained knowledge and skills but also confidence in working in evaluation and using evaluation for advocacy. In addition, for those who had not had much exposure to researchers and evaluators, results showed that many now feel more comfortable about working with researchers and evaluators. This training can provide family members with a solid base of knowledge about the evaluation process and the beginning skills that can help them become valuable members of evaluation teams.

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Results from a Randomized Trial of a Family Support and Education Program

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Introduction

At least 5% of our nation's children, 3.5 million young people, have a serious emotional or behavioral disorder (Surgeon General, 1999). They are at great risk for peer rejection, school failure, and delinquency. Their parents and families can be stigmatized and isolated from their communities, alone and uncertain about what services are needed or available. To reduce this threat, many communities have established parent-to-parent support programs that involve systematic efforts to link at-risk families with experienced peers, veteran parents, or support partners (Ireys, Sakwa, & DeVet, 2002). These individuals develop relationships with participating parents and create pathways to communities of families who are facing similar stressors. Although peer mentoring and support programs have become an accepted part of the mental health service system in some communities, little research has examined their effects on mental health outcomes for parents or children (Burns, Hoagwood, & Mrazek, 1999).

This summary presents selected results of a randomized trial of a theory-driven, community-based, parent-to-parent support and education program for families of children with serious emotional disorders. We refer to this program as *Parent Connections*. Further details regarding the program and its conceptual framework can be found elsewhere (Ireys, Sakwa, & DeVet, 2002). This program was developed and implemented jointly by academic researchers at the Johns Hopkins School of Public Health and the leadership of Families Involved Together (FIT), a community-based, parent led organization that provides support and education to families of children with mental health disorders.

Parent Connections

Parent Connections is a 15-month family support and education program designed to promote psychological and social functioning of children aged 9-14 years who are in treatment for serious emotional or behavioral disorders. The specific goals of the program are to enhance parental: (a) recognition that specific types of social support are available; (b) knowledge of practical, appropriate, and relevant parenting strategies, and causes and consequences of their child's behavior; (c) ability to collaborate with professionals; and (d) to enhance a sense of parenting efficacy. We hypothesized that the program would have proximal effects (increased parental support and sense of efficacy) and distal effects (enhanced child functioning).

Parent Connections integrates two, mutually-reinforcing components into a comprehensive program. The social support component involves 14 "Support Partners," women who themselves have raised children with serious emotional disorders into young adulthood. These women receive about 40 hours of a skill-building training program to prepare them for their roles. Each Support Partner contacts five to eight assigned families by telephone twice a month. They are paid an hourly wage. The program's educational component involves 18 participatory workshops (organized into three sets of workshops, one night per week for six weeks, with about six weeks in between each set). The workshops focus on issues such as supporting children's positive behaviors, working with the mental health system, and taking care of oneself. Local mental health professionals, the director of FIT, and the Support Partners facilitate the workshops.

Method

Our project assessed the effectiveness of Parent Connections through a randomized, repeated-measures clinical trial design with 257 families enrolled at baseline. We drew from families of children

aged 9 to 14 who lived in Baltimore, spoke English, and, during the enrollment period, were in treatment for a serious emotional disorder at one of 15 treatment sites in Baltimore City. At each of these sites, we arranged for clinicians or teachers to give a packet of information to parents and a request for permission to contact them to explain the program. We called all parents who gave us permission to call them. When our staff person called, she explained the study and invited the parent to participate; if the parent accepted, a home interview was scheduled at a convenient time for both the parent and the child. Parents were originally paid \$25 per interview, which was subsequently increased to \$50 mid-way through the recruitment process. Children were paid \$10 at first, and then \$15.

Following the recruitment process, we assigned families to either the experimental or the control group. Both groups received a large binder containing information regarding mental health, social, and spiritual services in the Baltimore area. Families assigned to the experimental group also received an invitation to join Parent Connections. Data were collected through face-to-face interviews at enrollment, at 12 months post-enrollment, and through telephone interviews at 8 and 16 months post-enrollment. Interviews included measures of the child's functioning, (Child and Adolescent Functional Assessment Scale, CAFAS; Hodges, 1994), and mental health (Child Behavior Checklist, (CBCL; Achenbach, 1991), maternal mental health (Psychiatric Symptom Index; Ilfeld, 1976), and sense of efficacy (Vanderbilt Mental Health Services Efficacy Scale; Northrup, Bickman & Heflinger, 1995), and child and maternal perceptions of availability of social support, use of health and mental health services, and indices of socioeconomic and family status.

Of the 257 families who enrolled and completed baseline interviews, 11 mothers and 17 children were excluded from data analyses because interviewers rated them as having little understanding of survey questions. Of the 246 mothers with acceptable baseline data, 135 were assigned to the experimental group; that is, they were invited to participate in Parent Connections. The remaining mothers (111) were assigned to the control group. About 72% of the study sample were black, 21% were white, and 7% reported other racial backgrounds. Slightly less than half of the mothers (48%) were working at the time of enrollment.

Results

The control and experimental groups did not differ on any demographic variable, except welfare status. A significantly greater percentage of families in the experimental group were on welfare compared to the control group. We had follow-up data from 73% of our sample. Attrition rates were not different between control and experimental groups. Families lost to follow up for any reason were not different from the rest of the group on any demographic or outcome measure.

We undertook an intent-to-treat analyses. That is, we included all who had been assigned to the experimental group, whether or not they actually participated in the program. We estimate that about 30% of the participants assigned to the experimental group received no or minimal exposure to the actual program.

As Table 1 shows, on the CBCL externalizing scale, mothers in both groups reported improvement from baseline to Time 2 (12 months later), but the improvement was greater in the experimental group. Mean scores decreased 1.9 points for the control group and 3.1 points for the experimental group, signaling fewer behavior problems. On the CAFAS, the control group mean decreased 5.1 points; the experimental group mean decreased 8.5 points, signaling a greater improvement.

Table 1
Mean Scores for the Child Behavior Checklist External Subscale and the Child and Adolescent Functional Assessment Scale Parent Version at Baseline (T1) and 12 Months Later (T2)

	<i>T1</i>	<i>T2</i>	<i>Diff</i>
CBCL (Ext)			
Control	70.7	68.8	-1.9
Experimental	69.4	66.3	-3.1
CAFAS Total			
Control	75.2	70.1	-5.1
Experimental	71.7	63.2	-8.5

As shown in Table 2, breadth of maternal support was measured by the number of child-rearing domains for which the mother reported having at least one person available who is supportive. The control group mean increased slightly. The experimental group mean increased by .4, or about half of a person, a significantly greater increase ($< .05$) than the control group. We used the percent of mothers who said that they receive the support they need most or all of the time to indicate adequacy of support. Compared to the control group, the experimental group showed a larger increase in the percentage of mothers who said they had adequate support, but this difference was not statistically significant.

Psychiatric Symptom Inventory scores for both groups decreased from Time 1 to Time 2, signaling fewer symptoms. The experimental group again improved more than the control group on these indices of maternal mental health. These differences, however, were not significant at the conventional level of probability.

Discussion

We found consistent positive effects of our program on children and on parents. Given the relatively small sample size and large standard deviations, it is not surprising that most of the differences were not statistically significant. However, all of them were in the expected direction. We are continuing our analyses using cut points to indicate movement from high to low risk status. For example, we will explore the dose-response relationship, and examine program effects after parsing out non-exposed participants. We are also examining whether the program had differential effects for some sample subgroups.

This study represents one of the few methodologically rigorous evaluations of a parent-to-parent support program. Qualitative data collected in a separate study underscored the value of Parent Connections to participating parents. As one parent noted, “This program was my pathway to a community of the accepted and forgiven.”

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Table 2
Mean Scores for on Social Support Indices
and Psychiatric Symptom Inventory Subscales
at Baseline (T1) and 12 Months Later (T2)

	T1	T2	Diff
Breadth of Social Support			
Control	2.7	2.8	.1
Experimental	2.7	3.1	.4*
Adequacy of Social Support			
Control	47%	52%	5%
Experimental	50%	58%	8%
PSI Depression			
Control	30.9	26.6	-4.3
Experimental	33.5	27.1	-6.4
PSI Anxiety			
Control	22.7	21.1	-1.6
Experimental	28.0	23.9	-4.1

* $p < .05$

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Examining Parent Support Group Members' Satisfaction with Their Group

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Introduction

Parent support groups (PSGs) have been identified as an important resource for parents of children with mental health problems (U.S. Public Health Service, 2000). To support the growth and development of parent support groups, it is important to evaluate parents' satisfaction with their support groups and parents' perceptions of outcomes from their support groups. Further, it would be helpful to better understand what variables are related to parents' satisfaction with PSGs. The purpose of this pilot study was to examine parents' satisfaction with their PSGs. Additionally, the relationship of other variables to parents' satisfaction with their PSGs was examined.

Methodology

Research Design. This pilot study used a cross-sectional, correlational design, with a convenience sample of parent support group members in one mid-western state. It had been anticipated that about 17 support groups in 13 counties were in various stages of development across the state; however, only six groups were functioning to the degree that they felt able to participate. A total of 52 parents were invited to participate, with 23 completed surveys returned for a 44% response rate.

Sample. Participants in this study included parents who were members of PSGs for parents of children with mental health problems. Both mothers and fathers were invited to participate. Primary caregivers, other than biological parents, who were caring for a child with mental health problems and were members of a PSG, were also invited to participate. The average age of participants was 44 years. The majority of participants were biological mothers (61%), followed by adoptive mothers (13%), adoptive fathers (9%), and grandmothers (9%). Most participants were Caucasian (83%), and 13% were African American. Most members were college educated (87%), with 44% having some college credit and 43% having a college degree. Fifty-two percent of participants were married, 22% were divorced, 13% were widowed, 9% were single, and 4% were separated. The average age of the child with a mental health problem was 14 years. The majority of children were Caucasian (70%), followed by African American (22%), and most were male (83%). Eighty-three percent of these children lived at home. The average participants' rating of the seriousness of their child's mental health problem was a 3.9 on a 5-point scale, with 5 being very serious and 1 being not very serious.

Procedure. Two parents of children with mental health problems who were not currently a PSG member, were trained as research assistants (RA) to assist with data collection. An introductory letter was mailed and phone contacts were made to the PSG facilitators prior to contacting members. Initial announcements were made at PSG meetings about the study. Parents were contacted in one of three ways by an RA. Initially, an RA either called the parent or attended a PSG meeting to share information about the study directly. The RA described the study, reviewed informed consent, and invited the PSG member to participate. When unable to contact parents directly, a survey was mailed along with informed consent and a stamped, return envelope. An RA or investigator attempted follow-up with phone contacts to answer questions and to offer to complete the survey over the phone.

Data analysis. Descriptive statistics were used to describe the sample. Reliability analysis was used to examine the psychometric properties of the scales. Correlational statistics were used to examine the

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interrelationships among study variables. Multiple regression, using step-wise regression, was used to examine which variables contributed the most to explaining the variance in parents' satisfaction with their PSGs.

Instruments

Instruments for this study included the PSG Outcomes Scale, the PSG Satisfaction Scale, the Parent Experiences Scale, and a demographic section.

The PSG Outcome Scale (Gerkenmeyer, 2000), developed for this study, consists of 13 items based upon Yalom's (1970) 10 curative factors in groups (see Table 1). These factors include: (a) imparting information, (b) instillation of hope, (c) universality, (d) altruism, (e) the corrective recapitulation of the primary family group, (f) development of socializing techniques, (g) imitative behaviors, (h) interpersonal learning, (i) group cohesiveness, and (j) catharsis. Parents were asked to specifically assess outcomes from their PSG using a 5-point Likert-type scale scored with 5 being *strongly agree*, 4 being *agree*, 3 being *neutral*, 2 being *disagree*, and 1 being *strongly disagree*. A high mean on an item, therefore, represented strong endorsement that participating in the PSG resulted in that outcome. Coefficient alpha for the outcome scale was .97 in this study.

The PSG Satisfaction Scale (Gerkenmeyer, 2000), developed for this study, is a 6-item scale that provides a global assessment of parents' satisfaction with the PSG and with the involvement of the state's Federation of Families for Children's Mental Health program (see Table 2). Additionally, parents' intent to continue attending support groups or to refer others to them, and the helpfulness of the group, were included in this scale. The same 5-point Likert-type scale used for the outcomes scale was used for the satisfaction scale. Coefficient alpha for the satisfaction scale in this study was .93.

The Parent Experiences Scale, adapted from Rinehard's Burden Assessment Scale (1994), was used to assess parents' concerns and level of distress related to having a child with a mental health problem. Coefficient alphas for this adapted scale in two previous studies were .93 and .91 for mothers and fathers, respectively (Gerkenmeyer, McBride, Feaster, & Austin, 1997), and .91 for both mothers and fathers combined (Gerkenmeyer, 1999). Coefficient alpha for this study was .62. The small alpha in this study may be related to the small sample size.

Results

Results from the PSG Outcomes Scale and Parent Satisfaction Scale are provided in Tables 1 and 2, respectively.

The mean for the PSG Satisfaction Scale was 3.93 on a 5-point scale, indicating that parents were generally satisfied with their PSG. Similarly, the mean for the PSG Outcomes Scale was 3.72. The mean for the Parent Experiences Scale, measuring parents' distress related to having a child with a mental health problem, was 2.15 on a 3-point scale, indicating that parents were somewhat distressed.

As shown in Table 3, only two of the study variables were highly correlated. These variables were the satisfaction scale and the outcomes scale ($r = .94, p < .0001$). This may partially be due to response bias. The satisfaction scale directly followed the outcomes scale and used the same 5-point, Likert-type response format. This high correlation with such a small sample size, however, most likely indicates a strong relationship between the two variables. It would also seem logical that a high endorsement of positive outcomes would be related to members being satisfied with their PSG.

When entering the independent variables into the step-wise, multiple regression analysis to examine which variables contributed to explaining the variance in parents' satisfaction with their PSG; only the variable PSG outcomes was retained ($p < .0001$). The independent variables entered into the regression included: (a) parents' perceptions of outcomes from their PSGs, (b) parents' levels of distress related to having a child with a mental health problem, (c) parents' perception of the seriousness of

Table 1
Parents' Endorsement of Parent Support
Group Outcomes (1 - 5 Point Scale*)

<i>Item</i>	<i>N</i>	<i>Mean</i>	<i>Median</i>	<i>Standard Deviation</i>
Because of my parent support group:				
1. My child has better services to meet his/her needs.	23	3.39	4.00	1.27
2. I know more about what services are available in the community	23	3.96	4.00	1.26
3. I know more about what my rights are as a parent of a child with mental health needs.	23	3.83	4.00	1.13
4. I know more about what my child's rights are related to his/her mental health needs.	23	3.74	4.00	1.13
5. I feel more supported by other families with children with mental health needs.	23	3.83	4.00	1.19
6. I feel I have someone to turn to who will answer my questions	23	3.74	4.00	1.05
7. I feel more connected to other families with children with mental health needs.	23	3.61	4.00	1.03
8. I feel more hopeful about the future for myself.	23	3.57	4.00	.99
9. I feel more hopeful about the future for my child.	23	3.57	4.00	1.08
10. I feel less alone—that other families have similar problems.	23	3.78	4.00	1.04
11. I have been able to help other parents with similar problems.	23	3.87	4.00	.76
12. I have increased chances to share my concerns with others.	23	3.87	4.00	.82
13. I have learned better ways to cope with my child's mental health problems.	23	3.61	4.00	1.16

* higher scores indicate greater agreement with statement.

Table 2
Summary of Parent Support Group Satisfaction Scale Items

	<i>N</i>	<i>Mean</i>	<i>SD</i>
PS1: Overall, I am satisfied with my parent support group	23	3.78	1.20
PS2: I have a strong personal level of commitment to my parent support group	23	3.68	.87
PS3: Overall, my parent support group has helped me	23	3.83	.98
PS4: I plan to continue to be a member of this group	23	4.09	.73
PS5: I would recommend this group to others with similar needs	23	4.30	.82
PS6: I am satisfied with my group's involvement with IFFCMH	23	3.91	1.04

Note: For items 1, 2, 3 & 6, respondent scores range from 1 - 5, with 5 indicating greater agreement. For items 4 & 5, respondent scores range from 2 - 5.

Table 3
Correlations Between Study Variables

Variable	1	2	3	4	5	6	7	8
1. Parent Satisfaction	---							
2. Outcome Scale	.91***	---						
3. Parent's Distress	-.09	-.22	---					
4. Child's Age	-.09	-.14	-.07	---				
5. Seriousness of Child's Problem	-.06	-.07	-.011	-.42	---			
6. Length of Mental Health Problem	-.01	.07	-.11	.55**	.05	---		
7. Highest Year Educated	.04	.04	-.14	.00	.16	-.26	---	
8. Household Income	.01	.05	.04	.05	.20	.01	.30	---

* $p < .05$, ** $p < .01$, *** $p < .0001$

their child's problem, (d) child's age, (e) length of the child's mental health problem, (f) parents' highest level of education, and (g) parents' income. As can be seen on the correlation table (see Table 3), the other variables were not significantly related to parents' satisfaction, whereas, PSG outcomes was very significantly related. The variance of parents' satisfaction explained by PSG outcomes was represented by the Adjusted R Square of .85 ($p < .0001$).

Limitations

Due to the cross-sectional nature of the study design, data only reflected one point in time for each parent. It is likely that factors such as length of time a parent was a PSG member, or number of groups attended, could influence parents' satisfaction. The relationship between length of PSG membership or number of groups attended and parent satisfaction was not analyzed because parents provided inconsistent responses to these questions. An additional limitation with generalizing findings was the small sample size and limited geographic location.

Discussion

In this pilot study, it was evident that parents' reporting of outcomes from their PSG was highly related to their level of satisfaction with the group. It may have been that with a larger sample size, other variables would have entered into the regression model and contributed to explaining parents' satisfaction. Additionally, the measures of parents' level of involvement in their PSG could have made a contribution in explaining parents' satisfaction. Further research is needed to help clarify these relationships by obtaining both a larger sample size and more clearly measuring parents' level of involvement in their PSG. Further research about how parent satisfaction varies over time is also needed. Parents also reported a high level of outcomes from their group, especially in the areas of increased knowledge and support. Parents' level of distress was moderate. Parents' responses on the PSG Outcomes Scale with means of scale items all greater than 3, neutral, and most means approaching 4, agree, indicated that parent support groups appear to be a beneficial resource for participating parents. To further examine the effects of parent support groups, it would be informative to compare parent support group members' level of distress with non-members.

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