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Caregiver Resources and Strain in a System of Care

Caregiver strain is defined as “the demands, responsibilities, difficulties, and negative psychic consequences of caring for relatives with special needs” (Brannan, Heflinger, & Bickman, 1997, p. 212). Caregiver strain is important for several reasons. Most notably, there is a basic desire to improve the lives of families of children that have mental health problems. Additionally, caregiver strain and the impact of the child’s functioning on the family’s daily life have been found to be significant predictors of the child’s mental health service use and amount of service use (Brannan, Heflinger, Schweitzer, & Orten, 2000; McDonald, Poertner, & Pierpont, 1999; Teagle, Angold, & Costello, 1999). Furthermore, living with someone with a mental illness is associated with one’s own service utilization and health even when controlling for other predictors of health, including age, income, marital status, and race (Gallagher & Mechanic, 1996).

Another important aspect is the role caregiver strain might play in decreasing family participation in their child’s treatment. Dunst, Leet, and Trivette (1988) believe that it takes well-being and adequate resources for caregivers to participate in and be committed to their children’s treatment:

What may be interpreted as either oppositional or apathetic behavior [in the caregiver] may have less to do with contempt for professional opinion and more to do with lack of consensus regarding the nature of the presenting problems, the need for treatment, and the course of action that should be taken. (p.108)

Dunst and colleagues have demonstrated that both parental well-being and caregiver commitment to child-level treatments are affected by the adequacy of family resources, especially social and emotional support. Similarly, other researchers have shown a connection between resources and caregiver stress. Yatchmenoff, Koren, Friesen, Gordon, and Kinney (1998) found that informal resources, such as social support from friends and extended family, are inversely related to caregiver stress and directly related to caregiver enrichment—i.e., as informal resources increase, caregiver stress decreases and caregiver enrichment increases. However, material resources such as income and employment are not related to either stress or enrichment. McDonald and colleagues (1999) found caregiver stress to be related to several factors, including social support, child functioning, and the parent-child relationship.

It is possible that without adequate resources, such as time, energy, and social support, caregivers may be overwhelmed with strain and unable to participate as full partners in the treatment process. Because one of the guiding principles of the system of care philosophy is the full participation of family members (Stroul & Friedman, 1986), it follows that systems of care must provide opportunities for caregivers to acquire adequate resources and support as defined by the needs of the family. However, because caregiver strain is defined as strain due to the child's emotional or behavioral problems, would simply working to improve the child's functioning decrease strain? If so, why does the adequacy of family resources matter? This presentation attempted to answer the following questions: Are family resources related to caregiver strain beyond the effects of child functioning, child's age, family income, and caregiver's age? Do family resources and child functioning interact on caregiver strain?

Data for this study were collected in Clark County, located in southwest Washington. Clark County's largest city, Vancouver, is situated directly across the Columbia River from Portland, Oregon. The county is a mix of urban and rural areas; eight cities and large towns are included, with a total population of 345,238 (2000 census). It is predominately white (89%), with small percentages of African American, American Indian, Asian, and other racial groups. The county

received a 6.5 million dollar Comprehensive Community Mental Health Services for Children and Their Families Program grant, funded by the federal Center for Mental Health Services. The purpose of this grant is to better organize resources and programs serving children with mental health needs. The county spends a large percentage of its mental health budget on children's mental health, with 45% of the \$11.5 million spent in 1999 going to children's programs.

Method

One hundred and ten caregivers were interviewed within 45 days after their child (5 to 17.5 years old) had initially received services in a public mental health center. Forty-seven percent of families had an annual income of less than \$15,000, and 81.3% of caregivers had a high school diploma or higher education. Caregivers averaged 39 years of age. Most youth were in the custody of their biological mother (54%), with 22% in the custody of two parents, 10% wards of the state, and 14% 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% multiracial.

We used data from several questionnaires that were part of a larger interview. The Caregiver Strain Questionnaire (CGSQ) is a 21-item instrument that measures caregiver strain (Brannan et al., 1997). In this study, we specifically asked caregivers to report on strain that was due to the identified child's emotional or behavioral problems. For this analysis we used the global strain score, which is an overall average of the item scores. The Family Resource Scale (FRS) contains 30 items that measure 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 family support (Dunst & Leet, 1987). For this analysis, we used an overall average of the item scores to develop a total score.

The Behavioral and Emotional Rating Scale (BERS), a 52-item scale that measures a child's strengths in school functioning, family involvement, interpersonal strengths, affective strengths, and intrapersonal strengths (Epstein, 1998), was used to measure child

functioning. For this analysis, we used the Strength Quotient, a total strengths score normed by gender and SED (Serious Emotional Disorder) status, with 100 as a normed mean and 20 as a normed standard deviation.

Finally, we included the family's reported yearly income (including income from all possible sources such as alimony payments and public assistance), the caregiver's age, and the child's age. Table 1 shows the means and standard deviations for the total scale scores and the demographic data.

Table 1: Means and Standard Deviations

Variable	M	SD	Range
BERS: Strength Quotient	102.64	17.71	68–167
FRS: Total Scale Score	3.51	.84	1.7–5
CGSQ: Global Strain	2.84	.85	1.1–4.6
Caregiver's Age	37.30	7.36	23–56
Child's age	11.91	3.21	5.8–17.6
Income (midpoint of range)	Mean = \$18,564 Median = \$12,500	\$17,153	<\$5,000– >\$100,000

Table 2: Zero-order Correlations

Variable	Global Strain	Caregiver's Age	Child's Age	Income	Strength Quotient
Caregiver's Age	-.090				
Child's Age	.188*	.232**			
Income	.000	.157*	-.044		
Strength Quotient	-.438**	-.110	.014	.045	
FRS total	-.439**	-.071	-.006	.181*	.182*

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

Table 3: Hierarchical Multiple Linear Regression Data

IV	R ²	R ² change	p for R ² change	B	β	p
Caregiver's Age	.055	.055	.547	-.028	-.244	.081
Child's age				.067	.254	.064
Income				.058	.141	.297
Strength Quotient	.269	.214	.003	-.019	-.400	.004
FRS total	.424	.155	.004	-.481	-.408	.004
FRS x BERS	.424	.000	1.000	/	/	/

There were several missing items because many of the scale items were not applicable to a number of participants (e.g., *adequacy of childcare* for a child that is too old to need childcare). If 15% or less of the items that made up the total scale score had missing values, these were replaced with the individual's mean score; otherwise, the case was excluded pairwise from analysis. Of the total ($N = 108$), 86 individuals had no missing scale scores. Zero-order correlations were run between all variables. A hierarchical multiple linear regression analysis was performed using caregiver strain as the dependent variable and the adequacy of family resources, child functioning, and family income as the independent variables. The variables were entered using the demographic variables of caregivers' age, child's age, and income in the first step, child functioning in the second step, and family resources in the third step. This was done to test the hypothesis that family resources predicted caregiver strain beyond the effects of child functioning and demographics. In the fourth step, we included an interaction term between resources and functioning.

Results

The zero-order correlations are shown in Table 2. The regression data, and the coefficients for the final model, are shown in Table 3.

These results show that the demographic variables of caregiver's age, child's age, and income were not significantly related to caregiver strain. Zero-order correlations showed a small relationship between child's age and strain, but this relationship did not appear in the regression. After controlling for the demographic variables, child functioning, as measured by the BERS Strength Quotient, accounted for 21.4% ($p = .003$) of the variance in caregiver strain. After factoring out the statistical effects of all other variables, family resources accounted for an additional 15.5% ($p = .004$) of the variance in caregiver strain. The interaction term of resources and functioning added no predictive value to the model.

Discussion

This analysis confirmed our hypothesis that family resources were related to caregiver strain beyond the effects of demographics and child functioning. In other words, after statistically controlling for demographics and functioning, there was a relationship between family resources and caregiver strain. This is especially interesting given that caregiver strain is defined as (and asked of the participants as) strain due to the identified child's emotional or behavioral problems. Additionally, because this relationship was true even after controlling for the effects of income, the concept of *family resources* means much more than income. Similarly, we found no relationship between just the two variables of income and caregiver strain. It is important to consider that income did not have much variability, with more than half of the cases reporting a yearly income of \$15,000 or less, so we cannot assume these findings would be true for more wealthy populations. However, Yatchmenoff and colleagues (1998) and Dunst and colleagues (1988) reported similar findings in other populations.

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

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