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ORIGINAL PAPER

Practical Disadvantage, Socioeconomic Status, and Psychological Well-Being Within Families of Children with Severe Emotional Disturbance

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Abstract Although socioeconomic status (SES) has been associated with a myriad of physical and psychological health indicators, it is arguably one of the most elusive constructs in the psychological literature. Most researchers agree that SES is complex and multidimensional; however, the majority of empirical studies that focus on SES do not measure (or attempt to measure) multiple components of the construct, instead focusing on one or two *indicators* of SES, most commonly household income and/or levels of education. This paper explores relationships among indicators of SES, disadvantage, and psychological well-being in two independent samples of families with children with severe emotional disturbances. In addition to utilizing two common SES indicators (parental education and income), we incorporated measures reflecting resource-related challenges of living, such as adequate food and housing. Based on analyses, we argue that such variables may better capture the challenges experienced by many families than traditional SES indicators. Findings also suggest that income and education relate to different aspects of family well-being, and solely using one or both of these variables may mask relevant relationships. Moreover, assessing practical, day-to-day challenges may permit a more nuanced picture of the relationships between factors associated with SES and indicators of well-being and adjustment.

Keywords Socioeconomic status · Family wellbeing · Poverty · Education · Income

Introduction

Although socioeconomic status (SES) has been associated with a myriad of physical and psychological health indicators, it is arguably one of the most elusive constructs in the psychological literature (Braveman et al. 2001; Oakes and Rossi 2003). Most researchers agree that SES is complex and multidimensional; however, the majority of empirical studies that focus on SES do not measure (or attempt to measure) multiple components of the construct, instead focusing on one or two *indicators* of SES, most commonly household income and/or levels of education (Braveman et al. 2001). In fact, there is a lack of consensus regarding how best to measure SES and or the elements that account for its potential impact, contributing to particular challenges in examining relationships between SES and variables reflecting health, well-being, and adjustment.

In many studies that link SES to health and well-being, income and education are used as the sole proxies for SES (Grusky 2001; Oakes and Rossi 2003; Shavers 2007). However, there has been little consideration as to whether these variables accurately reflect the real-world life concerns and challenges faced by those being studied (Braveman et al. 2001; Diemer et al. 2013). While research suggests that education and income are indeed related, correlations between the two are generally not strong enough to justify using these factors interchangeably (Braveman et al. 2001, 2005). In fact, the majority of

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studies within the social sciences report income-education correlations at 0.50 or lower (e.g., Braveman et al. 2005; Oakes and Rossi 2003). Even when multiple indicators of SES are used, researchers rarely provide a rationale for choosing a particular measure (Braveman et al. 2001, 2005; Shavers 2007), and specific methods for determining SES are not typically defined (Crosnoe and Huston 2007). Often the selected dimension of SES may not accurately reflect the construct of interest (Diemer et al. 2013). For instance, although education may be viewed as "the most fundamental aspect of SES" (American Psychological Association Task Force on SES 2007, p. 9), traditional measures of education are designed to assess only number of years of formal schooling; such a measure is unlikely to capture nontraditional education such as apprenticeships or practical technical training received on the job (Shavers 2007). Capturing aspects of education beyond number of years might hold relevance when considering the wide-ranging practical aspects of family well-being and stability, including one's employability and flexibility in transferring skills across settings.

It is beyond the scope of this paper to provide a comprehensive review of different approaches to conceptualizing SES (see American Psychological Association Task Force on SES 2007) or the varied measures employed (see Diemer et al. 2013; Grusky 2001). Nonetheless, in the last decade, there has been increasing appreciation of the salience of SES in the day-to-day lives of families and a growing effort to understand the construct and measure its dimensions more extensively and accurately. Social science researchers, in particular, are designing and utilizing ever more diverse and complex measures of SES, including elements that tap into economic resources, power, and prestige (e.g., Fujishiro et al. 2010; Krieger et al. 2005). Still, other efforts have focused on capturing SES by using either separate indicators of financial, social, and human capital (e.g., Oakes and Rossi 2003) or by utilizing composite measures to capture these elements (e.g., Carstairs and Morris 1989; Hollingshead and Redlich 1958). As an example of the latter, many studies have used the Hollingshead Four-Factor Index of Social Status (Hollingshead 1975), which continues to be employed in fields such as public health and medicine (Adams and Weakliem 2011). That said, questions have been raised about elements of the scale's classifications, such as the status categories of some occupations and, in particular, the fact that education and occupational status are combined into a single dimension (Adams and Weakliem 2011). Despite the criticisms delineated by some scholars, the scale is viewed as "probably superior to either education or income by itself" (Adams and Weakliem 2011, p. 15).

At its most basic level, SES reflects access to resources. Consistent with this notion, some conceptualizations of SES place considerable weight on "differential access to valued resources" (American Psychological Association Task Force on SES 2007, p. 5). In turn, one approach to tackling the nuances of SES relies on practical reports of material deprivation or access to resources, such as car ownership or the possession of a dishwasher, as primary indicators of SES (e.g.,Wardle et al. 2002; Yang and Gustafsson 2004). Such measures have been shown to have fair reliability and validity and in many cases better completion rates (i.e., respondents are more likely to provide the requested information) than scales or items assessing traditional SES indicators. These measures may also have advantages over traditional measures of SES because they can be easily administered to individuals from diverse backgrounds as well as to youth (Wardle et al. 2002). Yet, they may also have very different meanings in diverse contexts (e.g., not owning a car may have less impact in a large city with established public transportation systems versus a small town). However, innovative and extensive theory-driven measurements of SES are still the exception rather than the rule (Braveman et al. 2005).

In light of these challenges, the current work sought to examine potential linkages involving indicators of SES and families' resources and well-being. More specifically, the relationship between commonly-used indicators of SES, income and years of education, and psychological well-being was explored in two different samples of families with children who have severe emotional and behavioral disturbances (SED). Examining the relationship between SES and indicators of well-being held particular relevance here because the majority of families in our samples fell well below community averages on annual household income, and would thus be categorized as "low SES." The special nature of the samples is also an asset; enhancing understanding of the role of socioeconomic disadvantage—and its associations with well-being—in families with at least one member involved in mental health services can point to implications for service provision, both for providers and system administrators. Given that many mental health and human service systems do not take into account or work to address broader ecological factors, such as economic strain or the lack of living wage employment (see, e.g., Cook and Kilmer 2010), it is necessary to identify straightforward approaches for assessing disadvantage and documenting the degree to which elements of the multidimensional construct of SES relate to different aspects of individual and family well-being. Therefore, in this effort's *Study 2*, in addition to utilizing standard dimensions of SES (i.e., education and income) to investigate the associations between SES and well-being, the relationship between family well-being and variables associated with practical daily resource limitations, such as the availability of food, electricity, and housing, was explored. We chose to use these additional indicators associated with disadvantage because we expected that they may be better predictors of the kinds of limitations experienced by impoverished and struggling families and, in turn, evidence stronger relationships to indicators of well-being and adjustment than traditional indicators of SES such as caregiver education and family income level. In turn, our findings may assist researchers and practitioners working with impoverished families in developing more effective strategies for attending to variables associated with SES in their assessments.

This paper draws on data from two large, multi-year studies: (1) the MeckCARES Evaluation, an evaluation of a System of Care serving children and families in Charlotte, NC and, (2) the Sibling Resilience Research Project, a National Institute of Mental Health-funded study exploring risk and resilience among siblings of children with SED. It is important to note that SES was not an original or prime focal point of either of the two studies from which we have drawn our data. However, during the early phases of data analysis for each study, we noted that traditional indicators of SES (i.e., income and education) were each associated with different aspects of child and family well-being. Furthermore, income and education did not appear to capture adequately the resource limitations that families in our samples experienced as a result of poverty. This realization led to further exploration of how to best represent the SES construct, particularly its potential implications for daily and practical challenges, among families with children who have SED. For the purposes of this paper, we first examined the relationships between traditional SES indicators (i.e., income and education) and child and family well-being in the two independent studies. Unlike Study 1, Study 2's protocol also included measures reflecting material deprivation and challenge. Therefore, we conducted additional analysis using data unique to Study 2 to explore the relationship(s) between traditional indicators of SES and more practical indicators of economic disadvantage.

Study 1: MeckCARES Evaluation

The MeckCARES system of care was supported via the Comprehensive Community Mental Health Services for Children and Their Families Program, the largest federally-funded child mental health services initiative (Cook and Kilmer 2004, 2012). Mecklenburg County is one of over 200 sites across the country to have implemented a system of care model for children diagnosed with SED (Cook and Kilmer 2012). The multi-component evaluation of MeckCARES examined program achievements, child and family outcomes, as well as mental health service needs and utilization. In-depth interviews were conducted with caregivers and youth at the time of their enrollment into the program and every 6 months for up to 3 years. Time 1 data were collected between February 2007 and August 2009.

Method

Participants

Baseline (Time 1) data from the evaluation of MeckCARES were used for this study. Participants included 191 caregiver-youth dyads. Caregivers in this sample were primarily female (89 %), and included biological parents, adoptive parents, foster parents, grandparents, and staff who supervise the youth in residential and psychiatric facilities (see Table 1). The mean age of caregivers was 41.50 years and, on average, they had 12.19 years of education, that is, a high school diploma. Participants primarily identified themselves as African American (69.1 %). In this largely low-income sample, 62 % of families reported a household annual income (i.e., income from all sources) of <$20,000 per year.

Measures

The measures used for this analysis were components of the National Longitudinal Study, developed by ORC Macro (Center for Mental Health Services 2007) and were chosen to reflect dimensions of youth, caregiver, and family well-being.

Indicators of Socioeconomic Status For this study, the primary SES indicators were caregiver's annual income and caregiver education, drawn from the Caregiver Information Questionnaire (CIQ; Center for Mental Health Services 2007). For income, caregivers selected one of ten income ranges (from "<$5000" to "100,000 and over"). For education, caregivers were asked to report the total number of years of schooling they completed.

Caregiver Strain The Caregiver Strain Questionnaire (CSQ; see Brannan et al. 1997) measures the extent to which caregivers are affected by the demands of taking care of a child with emotional and behavioral problems. Caregivers responded to 21 items using a 5-point Likert scale ranging from 1 (*not at all*) to 5 (*very much*). Although the measure includes three subscales (with alphas ranging from .73–.91; Brannan et al. 1997), the *Global Strain* score was used for the current study—as the sum of the mean

Table 1 Demographic characteristics for study 1 and study 2 samples

	Study 1 (n = 191)	Study 2 (n = 99)
Caregiver gender	89 % female	99 % female
Caregiver mean age	41.50 (*SD* = 10.38, range = 25–75)	37.16 (*SD* = 7.40, range = 24–63)
Number of people in household	*M* = 4.05 (*SD* = 1.48, range = 1–8)	*M* = 5.05 (*SD* = 1.78, range = 2–16)
Caregiver years of education	*M* = 12.19 (*SD* = 1.99, range = 5–17)	*M* = 13.37 (*SD* = 2.90, range = 8–23)
Race/ethnicity	69 % African American	62 % Caucasian
	18 % Caucasian	15 % African American
	3 % Multiracial	15 % Biracial/Multiracial
	.5 % American Indian/Alaska Native	4 % Latino/Hispanic
	8 % Unreported	2 % American Indian/Alaskan Native
	3 % Other	2 % Other
Family income (from all sources, including public assistance, child support, alimony, etc.)	25 % = less than $5000	28 % = less than $20,000
	14 % = $5000–$9999	20 % = $21,000–$30,000
	12 % = $10,000–$14,999	22 % = $31,000–$50,000
	11 % = $15,000–$19,999	30 % = Over $50,000
	10 % = $20,000–$24,999	
	9 % = $25,000–$34,999	
	11 % = $35,000–$49,999	
	5 % = $50,000–$74,999	
	3 % = $75,000 and over	

Race and ethnicity were grouped together in the study data collection

scores on the measure's 3 subscales, it provides a more general or overall indicator of strain. Alpha = .86.

Family Relationships The Family Life Questionnaire (FLQ; Center for Mental Health Services 2007) consists of 10 statements that describe positive family interactions (e.g., "Our family deals with crises or other problems without fighting"). Caregivers rated how often these interactions occurred in the past 6 months on a Likert scale ranging from 1 (*never*) to 5 (*always*). Alpha in this study = .86.

Youth Behavioral and Emotional Strengths The Behavioral and Emotional Rating Scale, 2nd Edition (BERS; Epstein 2004) assesses children's strengths across multiple domains, including *Affective Strength, Interpersonal Strength, Intrapersonal Strength, School Functioning,* and *Family Functioning*. Because of the varying domains assessed, it is used here as an indicator of youth adjustment and functioning, consistent with prior work (e.g., Kilmer et al. 2010a, b; Vishnevsky et al. 2012). The BERS consists of two corresponding versions, one for youth and one for caregivers. Respondents answer 57 items using a 4-point Likert scale, ranging from 0 (*not at all like you/your child*) to 3 (*very much like you/your child*). The psychometric properties for this measure are documented elsewhere (e.g., Epstein 2004). Scores were converted into a standardized *Strength Quotient*; alpha = .95 for the youth measure and .97 for the adult version.

Results

To examine the relationships between indicators of SES and well-being, bivariate correlations of the traditional indicators of SES, income and years of education, were run against the selected outcome measures (see Table 2). The correlation between income and education was $r = 0.42$ ($p < .001$), suggesting that, although these variables were moderately correlated, income and education are not interchangeable.

An examination of the correlations between income/education and the variables reflecting well-being reveals differences in the nature of the associations. First, although both correlations were small, the caregiver global strain

Table 2 Study 1: Correlations between factors reflecting SES and indicators of caregiver, child, and family well-being

Measure of well-being	Caregiver income	Caregiver years of education
Caregiver global strain score	.116	.152*
Family life total score	.192*	.006
BERS-strength index parent	−.177*	−.244**
BERS-strength index youth	.049	.148

BERS behavioral and emotional rating scale-2

** $p < .01$; * $p < .05$, N = 180

score significantly correlated with education ($r = .15$, $p < .05$) but not with income ($r = .12$, $p = .14$). Second, the FLQ total score, which reflects family environment and cohesion, correlated significantly with family income ($r = .19$) but not with years of education ($r = .01$). In other words, the caregiver's perspective regarding how the family communicates, makes decisions, and is supportive of one another was found to be related to total family income, but not to the number of years of schooling completed by the caregiver. The BERS Strength Quotient (caregiver report) correlated significantly with both income (r = −.18) and education (r = −.24), although the relationship with income is slightly stronger in an absolute sense. These negative relationships indicate that caregivers who earned more money and completed more years of schooling rated their children as having fewer emotional and behavioral strengths than caregivers reporting lower household income levels and fewer years of education. The BERS Strength Quotient as reported by youth did not significantly correlate with either construct.

As the BERS Strength Quotient was the only well-being indicator correlated with both income and education, a regression predicting the caregiver reported BERS Strength Quotient was run to further explore this relationship. Both income and education were entered together. As presented in Table 3, the model including both family income and caregiver education significantly predicted caregiver reported BERS Strength Quotient Scores, accounting for 7 % of the total variance [$F(146) = 5.10$, $p < .01$], with education being the only significant variable within the model.

Table 3 Study 1: Regression analysis predicting BERS strength quotient (parent rated) using traditional indicators of SES (income and education)

Model/variable	b	SE	R^2	Adjusted R^2	F
Step 1: (Constant)		8.48	.07**	.05	5.10**
Income	−.09	.61			
Education	.20*	.75			

BERS behavioral and emotional rating scale-2

** $p < .01$; * $p < .05$, N = 180

Study 2: Sibling Resilience Research Project

The second study draws upon data from the Sibling Resilience Research Project, a short-term longitudinal study examining risk and resilience among siblings of children with SED. A key aim of the Sibling Project was to better understand the adversity experiences, resources, family contexts, and adjustment of these siblings (see Kilmer et al. 2010a, b), and findings informed recommendations for improving the mental health services available to the entire family, not just the diagnosed child (Kilmer et al. 2010a). Participants were recruited via several different methods, including: electronic recruitment (i.e., emailed flyers) in partnership with the Federation of Families for Children's Mental Health, a national parent-run family support organization; presentations given to different parent advocacy groups and mental health professionals; and flyers made available by family-serving agencies (Kilmer, et al. 2010b). Data collection included measures completed at baseline by caregivers via mail and phone interviews with caregivers between October, 2004 and July, 2008.

Method

Participants

Caregivers in the sample (N = 99) were mostly female (99 %), had completed an average of 13.37 years of education, and were, on average, 37.16 years of age (See Table 1). The majority of caregivers (62 %) identified themselves as Caucasian. This sample consisted of families with greater variation in reported family income than the MeckCARES sample (see Table 1 for comparison). Although nearly half the sample reported making less than \$30,000 annually, 30 % reported earning more than \$50,000. The children in this study had at least one sibling who had been diagnosed with SED.

Measures

This study included multiple indicators of well-being for the caregiver, youth, and the family. As in Study 1, only a subset of these measures was selected for the present analyses.

Indicators of Socioeconomic Status and Disadvantage In addition to commonly used indicators of SES, income and education, we utilized two scales to assess families' daily challenges and access to resources. These measures reflect aspects of familial hardship and material deprivation. The first, the *Basic Needs* subscale of the Family Resource Scale (FRS; Dunst and Leet 1987), assesses the adequacy of tangible resources such as food, heat, and housing using a 5-point scale from 1 (*not at all adequate*) to 5 (*almost always adequate*). The second, the *Poverty* factor from the Life Events Checklist (LEC; Kilmer et al. 1998) is a yes–no index that assesses poverty-related stressful life events experienced by the child and family. On this subscale, caregivers endorse whether or not their family has experienced hardships reflected by items such as "*We have been very crowded where we live*" and "*Sometimes our family has had little food to eat*."

Caregiver Symptomatology The Brief Symptom Inventory (BSI; Derogatis, 2000) assesses symptoms of depression, somatization, and anxiety. Caregivers responded to the measure's 18 items using 5-point scale from 0 (*not at all*) to 4 (*extremely*). Alpha = .87.

Family Relationships The *Relationship Dimension* of the Family Environment Scale (FES; Moos and Moos 1994) was used as an indicator of family functioning and well-being. Caregivers completed 27 true/false items to rate their perception of family cohesion, expressiveness, and conflict. Alpha = .83.

Youth Behavioral and Emotional Strengths As in Study 1, the Behavioral and Emotional Rating Scale 2nd Edition (BERS-caregiver report; Epstein 2004) was used to provide an understanding of youth well-being by assessing youth strengths across multiple domains (see Study 1 measures for description). This study only employed the caregiver-completed scale; caregivers completed ratings for both the child with SED as well an undiagnosed sibling. Alphas for the standardized *Strength Quotient* for the child with SED = .95 and for the sibling = .96.

Caregiver Strain The Caregiver Strain Index (Luescher et al. 1999) is a 13-item yes/no scale, reflecting common stressors and dimensions of burden associated with caring for a child with special needs (e.g., physical health, emotional symptoms, social activity). A total score was computed; alpha = .82.

Results

As in Study 1, income and education related differently to each indicator of well-being (see Table 4). In this sample, caregiver years of education only correlated significantly with caregiver strain ($r = .24$) and family relationships (FES; $r = .26$). Conversely, income was negatively associated with caregiver symptomatology (BSI; $r = -.34$) and positively associated with caregivers' ratings of the sibling's strengths (BERS, $r = .28$). As with the Meck-CARES sample, this indicator of caregiver strain was positively associated with years of education, but not income.

Study 2 included the FRS Basic Needs scale and the LEC Poverty factor score, reflecting material deprivation and challenge. These measures were specific to Study 2 and were not used in Study 1. Therefore, additional analyses were conducted exploring these factors and their associations with indicators of functioning and well-being. Both the FRS Basic Needs scale and the LEC Poverty factor score were significantly associated with indicators of family, child, and caregiver well-being in this sample (see Table 4). The FRS Basic Needs Scale, on which higher scores indicate more adequate resources, was negatively correlated with the BSI ($r = -.51$), indicating that caregivers with more resources reported less symptomatology. The FRS Basic Needs Scale was also positively correlated with the FES ($r = .41$) and the BERS Strength Quotient ratings for siblings ($r = .28$), suggesting that caregivers with more resources reported more positive family relational functioning and a greater number of strengths for the sibling. Familial material deprivation, as measured by the LEC Poverty Scale, was significantly associated with higher levels of caregiver self-reported physical and psychological symptomatology on the BSI ($r = .36$). In addition, the LEC Poverty Scale was negatively associated with the FES measure of family relationships ($r = -.40$) and the BERS Strength Quotient ratings for the sibling ($r = -.31$), suggesting that material deprivation related to less positive family relationships and lower ratings of sibling strengths.

To better understand the nature of the relationships among the various indicators of SES and psychological well-being in Study 2, hierarchical regressions were run to predict family well-being while controlling for traditional SES indicators (i.e., income and education). Four regression analyses were run, predicting each indicator of well-being (i.e., BSI, FES, and BERS Strength Quotient—child with SED and their sibling). In each model, caregiver years of education and family income were entered in Step 1, and LEC Poverty and FRS Basic Needs were entered in Step 2.

As presented in Table 5, the step including the combination of family income and caregiver education

Table 4 Study 2: Correlations between traditional measures of SES, indicators of material deprivation, and measures of caregiver, youth, and family well-being

Measure of well-being	Income	Education	FRS basic needs	LEC poverty
Caregiver strain	.116	.238*	−.233	−.004
BSI total	−.340**	−.084	−.508**	.358**
FES total	.262*	.068	.414**	−.401**
BERS strength quotient parent (rating for child with SED)	.008	−.079	.197	.068
BERS strength quotient parent (rating for sibling)	.275*	.073	.281*	−.310**

BSI brief symptom inventory, *FES* family environment scale–relationship dimension total score, *BERS* behavioral and emotional rating scale-2

** $p < .01$; * $p < .05$, N = 100

significantly predicted BSI scores, accounting for 12 % of the total variance [$F(98) = 5.66$, $p < .01$], with income being the only significant variable within the model. However, Step 2 improved the model significantly. LEC Poverty and FRS Basic Needs accounted for 12 % of the variance, over and above caregiver education and family income, such that the total model accounted for 24 % of the variance in BSI scores [$F(98) = 6.40$, $p < .01$]. In this step, the FRS Basic Needs score was the only significant individual contributor to the final model.

For the structurally similar model predicting FES (Table 6), the combination of income and education accounted for 8 % of the variance [$F(98) = 4.02$, $p < .05$] in Step 1. In Step 2, no single predictor was a significant correlate in the final model, but adding the LEC Poverty and FRS Basic Needs scores accounted for an additional 12 % of the variance in FES Relationship Dimension scores, resulting in a total Adjusted R^2 of 20 % [$F\ (98) = 5.72$, $p < .05$].

For the model predicting the BERS Strength Quotient for the child with SED (Table 7), Step 1 (with income and education) accounted for 1 % of the variance and was not statistically significant [$F(98) = .06$, $p = .95$]. The inclusion of the LEC Poverty and FRS Basic Needs scores did not contribute significantly to the model but did account for an additional 7 % of the variance, with the FRS Basic Needs score ($b = .36$) as the only significant correlate.

Lastly, for the model predicting the BERS Strength Quotient for the sibling ratings (Table 8), Step 1 of the model (accounting for 5 % of the variance) was not significant [$F(98) = 2.78$, $p = .07$]. However, the inclusion of the LEC Poverty and FRS Basic Needs scores contributed significantly to the model, accounting for an additional 8 % of the variance, with the LEC Poverty score as the only significant correlate. The four variables together accounted for a total of 13 % of the variance in caregiver-reported youth strengths [$F(98) = 3.28$, $p < .05$].

The regression analyses indicate that the inclusion of the LEC Poverty and FRS Basic Needs scores improved the models considerably. That is, in all but the model predicting the BERS Strength Quotient for the child with SED, Step 2 significantly increased the variance accounted for in the study's indicators of caregiver, family, and child well-being.

In sum, Study 2 builds upon the findings of Study 1, with both examining the relationship between different measures of SES and well-being among families in which one or more children have SED. In both studies, using

Table 5 Study 2: Summary of hierarchical regression analysis predicting brief symptom inventory scores using traditional indicators of SES (income and education) and indicators of material deprivation

Model/variable	b	SE	ΔR^2	Adjusted R^2	F Change
Step 1: (Constant)		5.71	.15**	.12	5.66**
Income	−.49**	.64			
Education	.23	.50			
Step 2: (Constant)		15.33	.14**	.24	6.40**
Income	−.18	.72			
Education	.17	.47			
LEC Poverty	.12	1.01			
FRS Basic Needs	−.39**	3.04			

b standardized beta, *SE* standard error, ΔR^2 change in R^2; *LEC* life events checklist, *FRS* family resource scale

$N = 99$. ** $p < .01$

Table 6 Study 2: Summary of hierarchical regression analysis predicting family environment scale—relationship dimension scores using traditional indicators of SES (income and education) and indicators of material deprivation

Model/variable	b	SE	ΔR^2	Adjusted R^2	F change
Step 1: (Constant)		3.01	.11*	.08	4.02*
Income	.43*	.34			
Education	−.30	.26			
Step 2: (Constant)		8.05	.14*	.20	5.72**
Income	.13	.38			
Education	−.26	.25			
LEC poverty	−.27	.58			
FRS basic needs	.27	1.60			

b standardized beta, *SE* standard error, *ΔR* change in R^2, *LEC* life events checklist, *FRS* family resource scale

N = 99. ** $p < .01$; * $p < .05$

Table 7 Summary of hierarchical regression analysis predicting behavioral and emotional rating scale strength quotient (ratings for child with SED) using traditional indicators of SES (income and education) and indicators of material deprivation

Model/Variable	b	SE	ΔR^2	Adjusted R^2	F change
Step 1: (Constant)		9.01	.00	−.03	.56
Income	.04	1.06			
Education	−.06	.79			
Step 2: (Constant)		25.26	.07	.01	2.32
Income	−.16	1.24			
Education	.01	.78			
LEC poverty	.11	1.83			
FRS basic needs	.36*	5.08			

b standardized beta, *SE* standard error, ΔR^2 change in R^2, *LEC* life events checklist, *FRS* family resource scale

N = 99, * $p < .05$

education and income alone (or in combination) did not provide meaningful or consistent information about the assessed family outcomes. Study 2 extended the analyses, demonstrating that family well-being was better predicted by using a combination of measures, including those assessing family disadvantage or material deprivation, than when using income or education alone.

Discussion

This study sought to investigate the relationships among indicators of disadvantage, SES, and caregiver, youth, and family well-being in two independent samples of families with children with SED. The present findings provide support for using multiple indicators of SES and disadvantage, because income and/or education may not provide the most appropriate and meaningful indicator(s) of SES for a given study's context or practice setting (Braveman et al. 2001; Diemer et al. 2013). It is difficult for any one indicator or variable to capture the multidimensional nature of a complex construct such as SES (Braveman et al. 2001). In that vein, our findings suggest that each SES indicator relates to different aspects of family well-being and using just one or the other may mask relevant relationships.

Table 8 Summary of hierarchical regression analysis predicting behavioral and emotional rating scale strength quotient (ratings for sibling) using traditional indicators of SES (income and education) and indicators of material deprivation

Model/Variable	b	SE	ΔR^2	Adjusted R^2	F change
Step 1: (Constant)		10.05	.09	.05	2.78
Income	.36*	1.13			
Education	−.22	.84			
Step 2: (Constant)		26.39	.10*	.13	3.28*
Income	.16	1.31			
Education	−.22	.81			
LEC poverty	−.33*	1.89			
FRS basic needs	.07	5.41			

b standardized beta, *SE* standard error, ΔR^2 change in R^2, *LEC* life events checklist, *FRS* family resource scale

N = 99, * $p < .05$

The studies described here drew from special populations of families of children with SED. They tended to be low income and to face a host of adversities (see, e.g., Kilmer et al. 2008; Kilmer et al. b). Of particular salience, one of the current effort's main findings is that, within such samples, measures which focus on practical, everyday limitations to families' resources and functioning may augment the standard assessed dimensions of SES and yield additional predictive sensitivity. As these findings indicate, within the context of families in poverty or those in lower income brackets, measures of material deprivation may enhance our ability to make connections between disadvantage and family well-being. Given the fact that the families in both samples included children with SED, findings such as these also highlight the need for mental health practitioners and human service administrators to attend to factors in families' contexts that they may view as outside their purview, such as employment, affordable housing, adequacy of basic needs, and poverty-related adversities (e.g., Cook and Kilmer 2010; Kilmer et al. 2010a, b; Strater et al. 2012), because these factors can be related to children's treatment outcomes and multiple salient aspects of caregiver and family functioning. In practice, these findings suggest that addressing family needs such as adequate food, clothing and shelter might be viewed as a critical aspect of care, rather than supplemental to it. Therefore, integrating indicators of material deprivation and access to resources (and resource-related challenges of living) into assessments may help guide practitioners and families in developing plans of care designed to address contextual factors that contribute to child and family well-being. The Family Resource Scale, from which Study 2's Basic Needs scale was drawn, may be particularly well-suited to this function. Furthermore, given that families of higher and lower income levels may assess their children's symptoms differently, an approach utilizing multiple assessment tools could yield information of relevance in creating treatment and action plans to meet specific family needs across domains. Doing so would be consistent with calls to attend to families' broader ecologies in delivering services and supports (e.g., Cook and Kilmer 2010).

Beyond those main points, some additional findings warrant consideration. In both studies, caregiver strain was positively correlated with education but not income. Thus, this unexpected positive association between caregiver strain and a traditional indicator of SES (i.e., education) persisted across both studies, even though different measures of strain were administered. It is critical to underscore that both caregiver strain scales (Brannan et al. 1997; Luescher et al. 1999) were designed to assess the strain and stress experienced as a result of caring for a child with special needs and challenges; they were not broad-based assessments of the strain or burden experienced by caregivers more globally. One potential explanation for these findings is that the stress caregivers experience in the face of raising a child with significant mental health challenges, and the attributions she/he makes about these reactions, may (a) not be tied directly to SES or (b) need to be framed within the contexts in which they are functioning. To the latter point, if a caregiver is struggling to make ends meet, maintain stable housing, and feed his or her children, the child's challenges (while concerning and needing attention) fall within a broader constellation of adversities. If a caregiver has more education and the family has greater means, a child's mental health concerns may constitute a prime stressor, both because of the influence on the family's daily functioning and, perhaps, the distress the caregiver experiences because of concern about 'causing' the child's difficulties or worries about stigma. Another aspect that may add to caregiver distress is the need to take time off work (if one or both caregivers are employed) to address the needs of a child with SED.

A similar notion may be relevant to the association found in Study 1—the BERS Strength Quotient (caregiver report) was negatively correlated with both family income and caregiver education. Thus, caregivers who earned more money and had completed more years of schooling rated their system-involved children as having fewer emotional and behavioral strengths. These findings challenge both research and conventional wisdom suggesting that children from families with fewer resources often experience greater symptomatology and behavioral distress (e.g., Hollingshead and Redlich 1958). Again, while any hypothesis about the nature of these findings is speculative, it is plausible that caregivers with more resources (e.g., financial resources via income or intellectual resources via education) may be more likely to perceive a child's emotional/behavioral problems as outside of the family norm and as more problematic. This is consistent with the current findings that caregivers with higher annual income/education rate their child as having fewer behavioral and emotional strengths (and as imposing more strain on the caregiver), while caregivers with fewer resources may be experiencing many other problems (e.g., material deprivation) and may not consider the youth's behavioral and emotional problems to be as problematic for the family.

In contrast, in Study 2, the higher the family income, the more positively caregivers rated the sibling child's behavioral and emotional strengths. There were also substantial differences between the regression analyses for BERS ratings for the child with SED versus BERS ratings for their sibling. More specifically, while the inclusion of the LEC Poverty and FRS Basic Needs scores significantly improved the regression model predicting sibling BERS scores, the model that used SES indicators to predict BERS ratings for the child with SED was not significant. One potential explanation for these findings may be that the child with SED is perceived by caregivers as doing more poorly in comparison to their undiagnosed sibling regardless of contextual factors. Caregivers' ratings of child well-being may depend on how taxed they feel and the resources they have available to balance or buffer the strain of having a child with SED. Namely, in this more economically diverse sample, caregivers who would be considered of higher SES may have finances to afford help with caregiving (such as a babysitter or daycare), they may be living in a safer and more desirable neighborhood, or they may have a larger support network that also has access to resources. Thus, siblings may have or may be seen as having greater behavioral and emotional strengths because their caregivers are not as burdened by material deprivation and have more resources to devote to their care. However, these same resources may not translate into gains for the children with SED as they may require specialized care and emotional resources not provided by economic advantages. Another potential explanation is that, because there is a sibling being rated, there is a contrast effect whereby the problematic behaviors of the child with SED are amplified in comparison to the "positive" behaviors of the sibling.

These findings certainly raise many questions about the relationship between SES and caregivers' perceptions of what would be problematic or stressful for a family. Additional research is needed to further examine the association between SES and measures of child functioning such as the BERS.

This study had several limitations. While the specialized population of families from which data were drawn constitutes one of the study's major assets and a prime means by which the present effort contributes to the extant knowledge base, their specific characteristics limit the generalizability of the findings obtained here. The associations detected need to be replicated in other samples, including broader community samples of low-income families. Furthermore, the sample size in both studies was relatively small; this too affects generalizability and has implications for study analyses. That is, the relatively small sample size did not permit the use of more complex analytic techniques such as hierarchical linear modeling, which may have enabled a more in-depth examination of the relationship between traditional indicators of SES, indicators of material deprivation, their relationship with well-being, and specific pathways that contribute to these relationships. This limitation qualifies the interpretations of study findings and the conclusions drawn.

Moreover, neither Study 1 nor Study 2 was designed to specifically examine SES. Demographic indicators (including caregiver education and family income) were collected as a matter of course, and the income categories, particularly in the sibling study, did not provide sensitivity in assessing family income, particularly at higher levels. This limited variability in the income categories and codes may have impacted the present findings. As another case in point, the measures of strain in both studies were designed to assess the strain of parenting a child with significant special needs (in this case, mental health challenges); if they assessed more general caregiver strain or burden, a different pattern of relationships may have emerged. In the end, the measures of material deprivation selected for the present work were chosen on the basis of their "face validity"; the items on the scales used here reflected practical challenges faced daily by families on the lower rungs of the socioeconomic ladder. In spite of these limitations, these measures were seemingly able to capture more of the nuances of the relationships between SES and our outcomes of interest than income and education alone (or in combination).

Although additional research is needed to investigate further the complex components of SES and how best to measure them, our findings provide support for (Diemer et al. 2013) assertion that SES indicators must be carefully selected from a broader range of existing measures to suit a study's purpose and sample population, including measures of subjective social status, poverty, and access to resources. In particular, we hope that our findings: (a) encourage social science researchers who may not have a specific focus on SES to consider utilizing measures that capture material hardship and deprivation to assess the construct of SES and its implications more effectively within low income samples, and (b) point to the value of assessing such factors, including the degree to which families have adequate resources to meet daily needs or potential adversities associated with disadvantage, within practice contexts, to provide a broader representation of factors and conditions that may be influencing child, caregiver, and family well-being.

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