Associations Between Objective and Subjective Socioeconomic Status, Perception of Family Resources, and Child Psychopathology Symptoms in Preschool Years

Natalie Hosseini, Marie Dougé, Shutian Shen, B.S. Brian Biekman, M.A., Rebecca Lipschutz, M.S., Xinge Li, M.A., Johanna Bick, PhD
University of Houston

Introduction

Family socioeconomic status (SES) can be defined in many different ways: objective levels of household income, parental education, and occupational status (Bornstein & Bradley, 2003). Past studies have examined the relationship between family SES and child behavior outcome by using objective measures such as income to needs ratio (Reiss et al., 2019), average parental education (Dallaire et al., 2008, Hay et al., 2007), and the Hollingshead index (McElroy, 2005, Wadsworth and Compas, 2002). These studies have found that lower SES predicted higher levels of externalizing and internalizing problems in preschool years (Hosokawa & Katsura, 2017, Hosokawa & Katsura, 2018), middle to late childhood (Fitzsimons et al., 2017, Lansford et al., 2019), and adolescence (Guerrero et al., 2006, Veenstra et al., 2006). Some studies have also found that subjective perception of SES is associated with physiological consequences in adults (Adler et al., 2000) and mental disorders in adolescents (McLaughlin, 2012). One study has concluded that lower levels of perception of family resources is associated with higher levels of internalizing and externalizing behaviors among children two to sixteen years old (Kelley, et al., 2011). However, few studies have examined the relationship between multiple measurements of SES and child psychopathology symptoms in preschool years.

We predicted that lower levels of objective income and subjective perception of SES and family resources would be correlated to higher levels of externalizing and internalizing behavior in preschool-aged children.

Methods

Sample

A pilot sample of 44 low income multi-ethnic families (mean child age = 5.07 years, SD = 0.87) from the Houston area were recruited from preschools, community centers, and service organizations.

Assessment

Socioeconomic Status

Parents reported demographic information including the child's age, race, parent education level, family monthly income through wages, and if they received financial support from the following categories AFDC (State Welfare), other welfare (city welfare, food stamps, WIC), SSDI (Social Security Disabilities), SSI (Social Security), unemployment benefits, child support payments, subsidized child care, family/friends not in home, section 8 or rental assistant program. We assessed the objective family income by calculating the sum of reported family monthly income through wages and the amount of all financial assistance family received per month.We calculated socioeconomic risk through income to need ratio, which ranged from extreme poverty (.5) to poor (2) in our sample.

We assessed people's subjective perception of SES by using the Ladder Scale which assesses individuals' perception of their ranks in the social hierarchy. Participants were told that the top of the ladder are the people who have the most money, most education, and most respected jobs. They were instructed first to select a spot on the ladder that indicates their standing relative to people in their community, and were then instructed to indicate their standing relative to people in the United States (Adler & Stewart, 2007).

We calculated the Hollingshead Index for each family based on education, occupation, sex, and marital status. The status score of an individual or family unit was estimated by combining information on sex, marital status, education, and occupation (Hollingshead, 1975). The status score of an individual was calculated by multiplying the scale value for occupation by a weight of five (5) and the scale value for education by a weight of three (3).

We assessed the resources provided in households of young children by using the Family Resource Scale which assesses eight factors of perceived family resources. Each factor was rated on a 5-point scale ranging from *not at all adequate* (1) to *almost always adequate* (5) (Dunst & Leet, 1985). **Factor I** measures both personal growth and financial support, including availability of time for personal growth; time for interpersonal relationships; and money for luxuries. **Factor II** assesses both health and necessities, including money for food, shelter, utilities, and debts; source of income; job for self or spouse; and health and dental care. **Factor III** includes primarily nutrition and communication items, including adequacy of food, clothing, and transportation. **Factor IV** includes the physical shelter items, including an adequate house or apartment, heat, and indoor plumbing. **Factor V** is an intra family support factor that includes time spent with child(ren) and family. **Factor VI** includes items that measure communication and employment, including availability of a telephone, dependable transportation, and source of income. **Factor VII** measures availability of both child-care arrangements and special equipment for the child. **Factor VIII** is a personal resources factor that measures if there is a good job for self or spouse/partner and time to rest and relax.

Methods

Child Psychopathology Symptoms

Parents reported their children's psychopathology symptoms using the Behavioral Assessment System for Children, Second Edition (BASC-2). Since our sample age ranged from 4 to 7 years we used both the 4-5 years version and the 6-11 years version of the questionnaire depending on the age of the child. For the 4-5 years questionnaire, T-scores from the aggression and hyperactivity subscales were summed and converted into the externalizing problems composite score. T-scores from the depression, anxiety, and somatic symptoms subscales were summed and converted into the internalizing problems composite score. For the 6-11 years questionnaire, T scores from the aggression, hyperactivity, and conduct problems subscales were summed and converted into the externalizing problems composite score and the internalizing problems composite was computed similarly to the 4-5 years version.

Parents also reported their children's behavior using the Conners Early Childhood-Parent measure. The behavior scale was divided into subscales of inattention/hyperactivity, defiant/aggressive behavior, social functioning/atypical behavior, anxiety, mood and affect, and physical symptoms.

Results

We conducted all of our statistical analyses in RStudio. We ran correlation analysis to examine the associations between each of the SES and family resource variables and the child psychopathology symptom variables. Income-to-needs ratio, Hollingshead index, parental education level, overall subjective perception, and perception of overall family resources were not significantly associated with any of the child psychopathology symptom variables.

Linear regression modeling revealed that family growth and support subscale scores were significantly associated with defiance/aggressive behaviors in preschool years, after controlling for child age, race, and gender (b = -0.19, p = .03), see figure 1. In addition, the family necessities and health subscale scores were also significantly associated with defiance/aggressive behaviors, after controlling for child age, race, and gender (b = -0.30, p = .04), see figure 2.

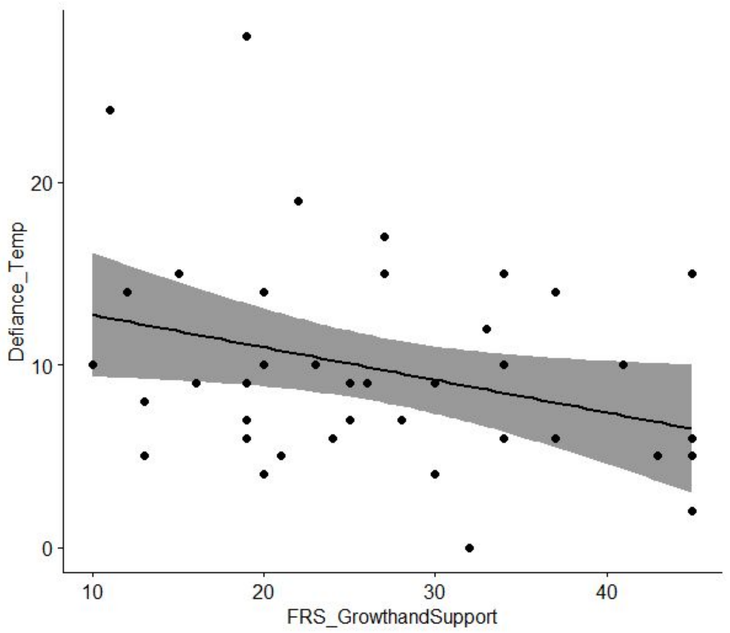

Figure 1

Results

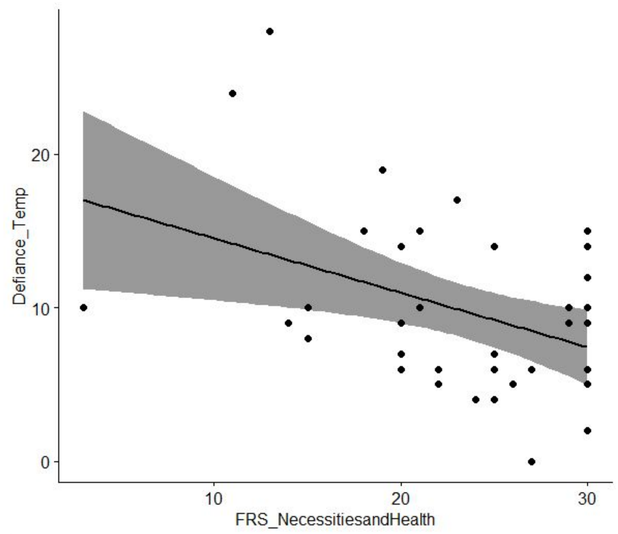

Figure 2

Discussion

Contrary to some of our hypotheses, income-to-needs ratio, Hollingshead index, subjective ratings of SES standings on a community and nationwide level, parental education, and overall perception of family resource resourcefulness were not associated with child psychopathology symptoms. We found that higher levels of perception of resourcefulness in two specific domains, family growth and support, and family necessities and health, were associated with lower levels of child defiance/aggressiveness.

Our results suggested that compared to more general assessments of SES, either objectively (income-to-needs ratio, parental education, Hollingshead index) or subjectively (ladder scale), specific assessments of families' evaluations of their needs in different domains of life are better predictors of children's psychopathology symptoms. This might suggest that general assessments of SES are too heterogeneous to assess specific difficulties that families are facing in daily life that specifically contribute to psychopathology symptoms. Objective scales may suffer from their inability to capture family stress, and general assessments such as income may be unable to assess the family's actual life experiences.

One limitation of our study is that it suffered from a low sample size, which resulted in us having a low power in our design. The results were only correlational, therefore we could not make any causal inferences between the variables. However, future studies could benefit from having a longitudinal design with larger power, so that the study can also control for baseline levels of child psychopathology symptoms. Another suggestion for improvement is to apply or develop more diverse and specific measures of subjective assessments of SES. There is also a need to explore the effects of SES on not only psychopathology symptoms, but also other types of behavior such as cognitive adjustments. Other interesting future directions include examining the mechanisms through which difficulties in satisfying certain needs could negatively impact child development (for example, parenting, family dynamics).

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Correspondence concerning this poster should be directed to: Natalie J. Hosseini
njhossei@uh.edu
(832)-704-5067