Risk and Resiliency Processes in Ethnically Diverse Families in Poverty

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Families living in poverty face numerous stressors that threaten the health and well-being of family members. This study examined the relationships among family-level poverty-related stress (PRS), individual-level coping with PRS, and a wide range of psychological symptoms in an ethnically diverse sample of 98 families (300 family members) living at or below 150% of the federal poverty line. Hierarchical linear model (HLM) analyses revealed that family PRS is robustly related to a wide range of psychological syndromes for family members of both genders, all ages, and all ethnic backgrounds. In addition, primary and secondary control coping were both found to serve as buffers of PRS for many syndromes. For several psychological syndromes, parents showed significantly higher levels of symptoms, but the link between PRS and symptoms was significantly stronger for children than for adults. Ethnicity was not a significant predictor in overall HLM models or follow-up analyses, suggesting that the broad construct of PRS and the theoretical model tested here apply across the 3 major ethnic groups included in this study. The findings suggest that family-based, coping-focused interventions have the potential to promote resiliency and break linkages in the pernicious cycle of family economic stress.

Keywords: poverty, stress, coping, families, psychological syndromes

Poverty is toxic for the health and well-being of children, adolescents, and adults alike (e.g., Krieger, 1994; Wadsworth, Raviv, Compas, & Connor-Smith, 2005). Much of the risk for compromised physical and mental health of individuals living in poverty can be traced to the stress borne of living without what one needs (e.g., Bauer & Boyce, 2004). Conger and colleagues’ family stress model (e.g., Conger & Elder, 1994) and McLoyd’s (1990) context of stress model describe several stress-based processes by which economic hardship negatively affects health and well-being within a family. These highly similar models are well validated and broadly applicable to diverse families (e.g., Conger et al., 2002; Mistry, Vandewater, Huston, & Mcloyd, 2002) but are nonetheless models of risk processes rather than resiliency. The current study builds on and expands these family economic stress models by examining a potential source of resilience in economically disadvantaged families: how family members cope with the stressors created and maintained by economic hardship. Understanding how multiple members of a family cope with poverty’s stressors and what types of coping are effective can potentially expand the utility of family economic stress models for interventions and family-based policy.

Stress-Based Models of Family Adjustment to Economic Hardship

Copious research on the family economic stress models has established that economic stress is a key conduit through which economic hardship affects family members. Economic stress is grueling and demoralizing, leading to depressed mood among parents. This distress then contributes to conflict among parents and other family members and, eventually, to less effective parenting. Less nurturing and involved parenting, in turn, contributes to a host of child and adolescent psychological problems, such as anxiety, depression, and disruptive behavior problems (e.g., Conger et al., 1992, 1993; Mcloyd, 1990; Mcloyd, Jayaratne, Ceballo, & Borquez, 1994).

Despite strong empirical support for family economic stress models, the children in these models are essentially passive recipients of parental problems. Children’s own experience of the stress of poverty is generally unaccounted for. Some research has found that parents are not the only members of a family who feel the stress of living without enough money (e.g., Wadsworth & Compas, 2002). Children and adolescents are also aware of and affected by the stressors created and maintained by economic hardship. Wadsworth and colleagues, for example, have found that children as young as 6 years of age report a wide array of poverty-related stressors (Raviv & Wadsworth, 2006) and that the resultant stress is associated with a wide array of psychological symptoms (Wadsworth et al., 2008). Therefore, the current study expands on family economic stress models by examining the risk and resiliency processes of
children as well as adults in families facing economic hardship.

In addition, most research on the effects of poverty on children and family economic stress models has targeted either very young children (i.e., under age 5) or adolescents, rather than elementary school children (for exceptions see Brody & Flor, 1997, 1998; Mistry et al., 2002). However, the elementary school period is a time of rapid development of independent coping and self-regulation. Children move from relying on others to help regulate their emotions in infancy and early childhood to becoming increasingly more reliant on internal, cognitively demanding strategies as they move through adolescence and approach adulthood (Losoya, Eisenberg, & Fabes, 1998). Thus, the current study includes family members from age 6 on to include the full range of “copers” in the family.

Coping With Poverty-Related Stress

McLoyd’s (1990) “context of stress” model asserts that the stress of poverty concerns much more than worries about money—it also encompasses hunger, violence, illness, and accidents, to name but a few. This is especially true for children and adolescents who are not responsible for paying the family’s bills but are nevertheless subjected to food insufficiency, inadequate housing, and frustrated, irritable parents. Building on McLoyd’s context construct, we refer to the stressors created, exacerbated, and maintained by poverty, collectively, as poverty-related stress (PRS; Wadsworth & Berger, 2006). Thus, consistent with family economic stress models, PRS contains economic strain, discrimination, victimization/violence exposure, family transitions/changes, and family conflict.

This research was guided by the responses to stress model (e.g., Connor-Smith, Compas, Wadsworth, Thomsen, & Saltzman, 2000), a five-factor model of stress responses that encompasses both effortful coping and automatic cognitive, affective, behavioral, and physiological reactions to stress. The three coping dimensions include Primary Control Coping (problem solving, emotional expression, and emotional regulation), Secondary Control Coping (acceptance, cognitive restructuring, distraction, and positive thinking), and Disengagement Coping (avoidance, denial, and wishful thinking).

Several forms of coping appear to promote psychological health in the face of PRS. Primary and secondary control coping appear to be effective forms of coping with PRS for both children and adults (e.g., Wadsworth et al., 2005; Wadsworth & Berger, 2006). Thus, taking steps to solve the problem or talk to someone about it (primary control coping) can be helpful in responding to PRS. Similarly, reframing one’s thinking about a problem or accepting things one cannot change (secondary control coping) appear to be very helpful in the face of PRS. Disengagement coping has been either positively related or unrelated to symptoms in previous PRS-focused research (e.g., Wadsworth & Compas, 2002), suggesting that trying to forget about problems and avoiding potential resources and sources of support can be detrimental for individuals struggling with chronic economic problems. Secondary control coping stands out as a particularly effective set of strategies for coping with this type of uncontrollable stress for adults and children alike (Weisz, McCabe, & Dennig, 1994). Because any one family member’s actions are unlikely to fully alleviate PRS, palliative strategies, such as acceptance and positive thinking, may be particularly effective in helping one feel better in the face of PRS.

Potential Moderators of the Effects of PRS:

Age, Sex, and Ethnicity

For which segments of the population is PRS most detrimental? Research has found negative effects of PRS on both children and adults (e.g., Cutrona, Wallace, & Wesner, 2006; Wadsworth et al., 2005), but at this point researchers cannot say which group is most adversely affected by it. Theoretical arguments can be made for the importance of PRS for both children and adults. For children, the uncontrollability and overwhelming nature of their family’s financial situation could render PRS a powerful difficult stressor to cope with. Thus, we may find a stronger association between PRS and psychological symptoms for children. Conversely, adults are responsible for the family’s finances, which places a unique burden on adults in the family. Therefore, it is possible that we may find a stronger association between PRS and symptoms for adults.

Females are generally found both to experience more stress and to be more affected by stress (e.g., Hankin, Mermelstein, & Roesch, 2007; Sandanger, Nygard, & Sorensen, 2004). Thus, it is likely that PRS and the cascade of stress borne of it also differentially affects female members of the family. Similarly, members of ethnic minority groups face more stress than do European Americans (e.g., Kessler, Norris, & Livavitz, 2002). However, family economic stress models appear to apply equally well to the three major ethnic groups represented in this study, suggesting that the within-family processes involved in transmitting risk are similar. The current study expands on previous research by examining the applicability of family economic stress models to three major ethnic groups across a wider array of psychological syndromes than has been previously accomplished.

A Risk and Resiliency Model of Adaptation to Poverty-Related Stress

An analysis of positive and negative adaptation to family-level PRS is needed. We have shown in studies involving dyads and individuals that coping with PRS has the potential to dampen the effects of this stress on family members (Wadsworth et al., 2005) but have yet to demonstrate this using hierarchical analyses involving family-level PRS. Pooling data from multiple family members eliminates biases introduced by one individual’s perspective and also controls for family-level biases.

The current study was designed to examine the effects of
family-level PRS on children and adults living in poverty and to examine the effects of individual-level coping of multiple family members on a variety of psychological syndromes. The proposed theoretical model posits that a family’s PRS exerts negative effects on the mental health of all of its members regardless of age (child, adolescent, adult), gender, or ethnicity, although stress may be differentially worse for females and those of nonmajority ethnicity. Both primary and secondary control coping with PRS are hypothesized to be beneficial for family members. Hierarchical linear modeling is an ideal analytical approach for studying family processes, as it allows for inclusion of multiple family members in the same analysis without concern for problems resulting from dependent observations. A hierarchical analysis allows for families to be measured as units and for all family members to be included in the lowest level of analysis. The model tests for main and interactive effects of age, gender, coping, and ethnicity. Primary and secondary control coping are predicted to show buffering relations with indices of psychopathology, though these patterns may differ by age, gender, ethnicity, and type of psychopathology. In the model, PRS is a Level 2 (family-level) variable, and coping, age, sex, and ethnicity are Level 1 (individual-level) variables. Much research on family economic stress models has focused on internalizing and externalizing symptoms despite emerging evidence of the pernicious effects of low socioeconomic status (SES) on a broader array of psychopathology (e.g., Wadsworth & Achenbach, 2005). Emerging evidence exists showing that stress is implicated in the emergence, severity, course, and prognosis of various syndromes and disorders not traditionally considered in such stress-based models as attention deficit hyperactivity disorder (e.g., Goldstein et al., 2007) and psychosis (Myin-Germeys & van Os, 2007). In fact, Wadsworth and Achenbach (2005) found similar SES effects on all but one of the seven psychological syndromes examined in their 9-year longitudinal study of children and adolescents. Therefore, consistent with this growing evidence of widespread effects of poverty, in the current study we cast a broad net and examined the applicability of a family-based model of risk and resiliency to a wide range of psychological problems. We expected that the model would apply to all but withdrawn symptomatology, the syndrome unrelated to SES in Wadsworth and Achenbach (2005). The eight narrow-band syndromes of the Achenbach System of Empirically Based Assessment (ASEBA; e.g., Achenbach & Rescorla, 2001) served as the dependent variables for the models.

The vast majority of studies of child and adolescent coping have assessed internalizing symptoms, externalizing symptoms, or both, finding helpful effects of the elements of primary and secondary control coping on both types of symptoms (e.g., Conpas, Connor-Smith, Saltzman, Thomsen, & Wadsworth, 2001). Little research has examined the effects of coping on other psychological syndromes, such as attention problems. However, a few studies have demonstrated the relevance of primary control strategies, such as problem solving for these types of problems (e.g., Melnick & Hinshaw, 2000; Molina, Marshal, Pelham, & Wirth, 2005). Thus, we predicted that primary control coping in particular would be helpful for each of the syndromes examined here.

Method

Participants and Procedure

Participants were 98 low-income families (300 total participants; at least 1 child and 1 parent or guardian per family; family size range = 2–7). A total of 164 children/adolescents participated in the study: 44% female; 82 children between ages 6 and 10 years; and 82 adolescents between ages 11 and 18 years. Ninety-eight primary caregivers participated in the study (95% female, mean age = 34.9 years, SD = 7.45). For households with two caregivers in the home, efforts were made to recruit spouses or partners. Thirty-eight secondary caregivers also participated in the study (85% male; mean age = 33.9 years, SD = 8.74). Thus, 136 total parents or guardians participated in the study and were included in these analyses (hereinafter referred to as parents). Participants were as follows: 20% African American, 33.7% European American, 38.3% Latino, 2.0% Native American, and 5.3% multiracial/other. Families were drawn from the Colorado Project on Economic Strain (CoPES) conducted at the University of Denver. Data for the current study were taken from the first wave of an ongoing longitudinal study examining family stress and functioning in the context of poverty.

Parents and children participating in CoPES were recruited from various locations throughout the greater Denver metropolitan area that serve families with school-age children, such as Denver Great Kids Head Start centers (for families with older siblings) and health clinics serving uninsured and underinsured families. Families were screened for income and family composition eligibility (self-reported family income at or below 150% of the federal poverty line; at least one child age 6–18 years and one parent or guardian willing to participate in the longitudinal study). Among eligible families, 81% (98/121) who contacted the lab participated in the study. The mean monthly income for participating families in this sample was $1,615 (SD = $894). In addition, 49.5% percent of the sample received food stamps, 55.6% were on Medicaid, and 14.1% were receiving Temporary Assistance for Needy Families (TANF) benefits. Among children in this sample, 63% were enrolled in their schools’ free or reduced-price lunch program. In terms of education, 17.4% of the parents in this sample had less than a high school education, 25.4% had a high school diploma, 37.6% had a training certificate or some college but no degree, and 13.1% had an associate’s or a bachelor’s degree. An additional 3.6% were currently attending school.

Families completed questionnaires at home prior to a lab or home visit. Of the 98 families, 3 chose to have the first visit conducted at their home. Informed consent was ob-
tained from parents, and adolescents completed assent forms. During the 2.5-hr in-person visit, parents and children participated in individual interviews and three videotaped family conversations. Families received financial compensation for their time.

**Measures**

**Family poverty-related stress.** The Multicultural Events Schedule for Adolescents (MESA; Gonzales, Gunnoe, Samaniego, & Jackson, 1995; Gonzales, Tein, Sandler, & Friedman, 2001) was used to measure child/adolescent PRS. Parents reported on their children’s and adolescent’s experiences of stress. In addition, adolescents (ages 11—18 years) provided reports of their own stress, whereas parent-only report was utilized for children (ages 6—10 years), who did not give self-reports. The MESA consists of 84 items assessing daily hassles and major life events that commonly occur in the lives of poor, urban youths, divided into eight subscales. As in Wadsworth et al. (2008), a composite PRS variable was computed from the following five subscales: Economic Strain, Family Conflict, Family Transitions/Changes, Discrimination, and Victimization/Violence Exposure. These subscales were highly correlated with each other (rs ranged from .35 to .67). Additional scales that were not part of the PRS composite included peer and academic stress. Parent and adolescent reports were highly correlated (r = .51) and thus were averaged to create a composite score. Cronbach’s alpha was .57 for the parent report of adolescent PRS composite, .64 for the parent report of child PRS composite, and .71 for the adolescent–parent combined composite PRS. The MESA was developed and validated with an ethnically diverse (African American, European American, and Latino adolescents), low-income population and has demonstrated adequate 2-week test–retest reliability (r = .71).

Parents were interviewed with the Economic Hardship Questionnaire (EHQ), a measure that assesses the number of constraints the family has felt as a result of economic hardship and the adjustments they have had to make in order to make ends meet in the past 6 months (Lempers, Clark-Lempers, & Simons, 1989). Respondents completed questions on a 5-point scale, indicating how often each of 11 items was true for them in the past 6 months. Sample items included “We have had to sell possessions to make ends meet”; “We had to apply for federal assistance.” Cronbach’s alpha was .74 in this sample. EHQ scores from parents and MESA scores from parents and children were standardized and averaged to create an overall family PRS variable. Scores from the EHQ and the MESA were significantly correlated (r = .30). Correlations between PRS and psychological problems were highly similar across informants, suggesting that the different measures of PRS captured similar constructs.1

**Psychological syndromes.** Parents completed the Child Behavior Checklist (CBCL; Achenbach & Rescorla, 2001) to assess their perceptions of children’s emotional and behavioral problems. Adolescents completed the Youth Self Report (YSR; Achenbach & Rescorla, 2001) to assess their own psychological symptoms. Parents (both primary and secondary) completed the Adult Self Report (ASR; Achenbach & Rescorla, 2003) pertaining to their own psychological symptoms and the Adult Behavior Checklist (ABCL; Achenbach & Rescorla, 2003) in reference to their partner’s symptoms. The CBCL contains 113 items, the YSR has 112 items, and the ASR and ABCL each have 126 items. Items are rated on a 3-point Likert scale (0 = never true; 1 = sometimes true; 2 = very often true). The eight narrow-band syndromes were used to assess a wide range of psychological problems. The ABCL, ASR, CBCL, and YSR measures are part of the ASEBA and consistently demonstrate excellent reliability and validity. In the present study, adolescent self-reports were significantly correlated with parental reports (rs ranged from .28 to .48) and were thus averaged to create a composite score.

**Coping.** Parents and adolescents completed the Responses to Stress Questionnaire (RSQ; Connor-Smith et al., 2000), a 57-item measure that assesses how a person responds to a stressful domain. For the current study, the domain was economic strain. Parents reported on both their own coping and that of their children and adolescents. Adolescents also reported on their own coping. The RSQ has demonstrated strong reliability and validity in multiple samples, including low-income and minority samples (e.g., Wadsworth, Rieckmann, Benson, & Compas, 2004). With this sample of adults and adolescents, respectively, internal consistencies were as follows: α(secondary control) = .86, α(secondary control) = .83/.82, and α(disengagement coping) = .72/.81. As recommended by Connor-Smith et al., factor scores on the RSQ were computed as proportions of the total score for all responses (i.e., sum of scores on primary control items/sum of all items) to control for overall responding biases. Self-reports were utilized for parents, parent report of coping was used for children, and composite scores were utilized for adolescents who provided self-reports in addition to parent report. Parent and adolescent reports of coping were significantly correlated (rs ranged from .25 to .40).

**Analyses**

**Model.** A hierarchical linear model was used to examine the primary research hypotheses. Level 1 of the model consists of all family members, that is, parents and children. Level 2 consists of the family to which each person belongs. Family PRS was entered as a predictor at Level 2, whereas the three forms of coping (primary control, secondary control, and disengagement) were entered at Level 1. Initial models revealed that disengagement coping was not a significant predictor of outcomes and was thus dropped from the model so as to not over stress the number of parameters estimated. The random-effect terms were included to allow for random variation due to variables not included in the model. Age, sex, and ethnicity were entered as fixed pre-
dictors. Final models were as follows (with \(i\) referring to Level 1 units or persons, \(j\) referring to Level 2 units or families, \(\beta_s\) representing Level 1 coefficients, \(\gamma_s\) representing Level 2 coefficients, \(r\) referring to Level 1 random error associated with person \(i\) in family \(j\), and \(\mu_s\) referring to Level 2 random error):

Level 1: \((\text{psychological syndrome})_{ij} = \beta_{0j} + \beta_{ij}(\text{age})_{ij} + \beta_{2j}(\text{sex})_{ij} + \beta_{3j}(\text{ethnicity})_{ij} + \beta_{4j}(\text{primary control coping})_{ij} + \beta_{5j}(\text{secondary control coping})_{ij} + r_{ij}\)

Level 2: \(\beta_{0j} = \gamma_{00} + \gamma_{01}(\text{poverty-related stress})_{j} + \mu_{0j}\)
\(\beta_{1j} = \gamma_{10} + \gamma_{11}(\text{poverty-related stress})_{j}\)
\(\beta_{2j} = \gamma_{20} + \gamma_{21}(\text{poverty-related stress})_{j}\)
\(\beta_{3j} = \gamma_{30} + \gamma_{31}(\text{poverty-related stress})_{j}\)
\(\beta_{4j} = \gamma_{40} + \gamma_{41}(\text{poverty-related stress})_{j} + \mu_{4j}\)
\(\beta_{5j} = \gamma_{50} + \gamma_{51}(\text{poverty-related stress})_{j} + \mu_{5j}\)

Results

Preliminary Analyses

Descriptive statistics and correlations among variables are reported in Table 1. The data were checked for skewness and kurtosis as well as extreme outliers before primary analyses were conducted. Missing data were handled with data imputation. Missing data were minimal, with percentage of missing data ranging from 0% to 7% on a given variable. Data were missing at random. Multiple data imputation was conducted with PRELIS (LISREL 8.52; Jöreskog & Sörbom, 2002). This approach yields unbiased and efficient estimates and is superior to listwise deletion and mean substitution (Graham, Cumsille, & Elek-Fisk, 2003). The program successfully imputed all missing values. For all analyses, imputed scores were included. Models were also checked for adequate intraclass correlations (ICC), indicating sufficient variance to move forward with hypothesized model testing. The delinquency model had an ICC < .01 and was not included in further analysis.

Models

Models were run with hierarchical linear modeling (HLM 5.02 software; Raudenbush, Bryk, Cheong, & Congdon, 2000) and random effects regression. PRS was entered at Level 2 as a family-level variable. At Level 1, primary control, secondary control, and age, sex, and ethnicity (European American vs. non-European American) were entered as individual predictors of each psychological syndrome. Table 2 contains full results from all seven HLM analyses.

A main effect of PRS was found for the anxious/depressed and withdrawn models, with PRS predicting more symptoms. Main effects for age were found for all but one syndrome. For most syndromes, this was qualified by an interaction with PRS, showing that whereas adults generally have more symptoms (except for aggression, where children had higher levels than adults), the slope of the relationship between PRS and symptoms was significantly steeper for children and adolescents than for adults. This is illustrated in Figure 1, for anxious/depressed symptoms, and in Figure 2 for aggression. Main effects for sex were found for anxious/depressed and somatic complaints, with female family members showing more of both types of symptoms. Interactions between PRS and sex were found for aggression and attention problems, revealing that PRS exacerbated aggressive behavior and attention problems primarily for females. This interaction is shown in Figure 3 for aggressive behavior. Main effects were found for primary and secondary control coping for most syndromes, where both forms of coping were related to fewer symptoms. A cross-level interaction between secondary control coping and PRS was found for anxious/depressed symptoms, showing that secondary control coping buffered family members from the stress of poverty. Figure 4 illustrates this interaction. Nei-

### Table 1

**Means, Standard Deviations, and Correlations Among Stress, Coping, and Symptoms**

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<th>Variable</th>
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<tbody>
<tr>
<td>1. Poverty-related stress</td>
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<td>2. Primary control coping</td>
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<td>3. Secondary control coping</td>
<td>−20**</td>
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<td>4. Disengagement coping</td>
<td>.02</td>
<td>.42**</td>
<td>−.29**</td>
<td>−.29**</td>
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<td>5. Anxious/depressed</td>
<td>.25**</td>
<td>−.29**</td>
<td>−.50**</td>
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<td>6. Withdrawn/depressed</td>
<td>.20**</td>
<td>−.30**</td>
<td>−.36**</td>
<td>.13</td>
<td>.70**</td>
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<td>7. Somatic complaints</td>
<td>.21**</td>
<td>−.18**</td>
<td>−.33**</td>
<td>−.05</td>
<td>.75**</td>
<td>.56**</td>
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<td>8. Social problems</td>
<td>.18**</td>
<td>−.29**</td>
<td>−.32**</td>
<td>.04</td>
<td>.64**</td>
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<td>9. Thought problems</td>
<td>.22**</td>
<td>−.23**</td>
<td>−.23**</td>
<td>.06</td>
<td>.49**</td>
<td>.57**</td>
<td>.48**</td>
<td>.61**</td>
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<td>10. Attention problems</td>
<td>.26**</td>
<td>−.28**</td>
<td>−.26**</td>
<td>.08</td>
<td>.57**</td>
<td>.57**</td>
<td>.46**</td>
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<td>11. Delinquent behavior</td>
<td>.15**</td>
<td>−.18**</td>
<td>−.11**</td>
<td>.23**</td>
<td>.23**</td>
<td>.37**</td>
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<td>.28**</td>
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<td>12. Aggressive behavior</td>
<td>.28**</td>
<td>−.18**</td>
<td>−.20**</td>
<td>.15**</td>
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<td>.38**</td>
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\(M\) 0.00 0.19 0.25 0.15 7.12 3.15 3.99 4.16 2.47 5.06 2.81 5.66

\(SD\) 0.72 0.04 0.05 0.03 6.75 2.77 3.90 4.10 2.67 4.02 2.67 4.75

\(\*p < .05\), \(\**p < .01\).
ther main nor interactive effects of ethnicity were found for any model.

**Additional Analyses**

Additional analyses were performed to more fully explore the lack of ethnicity findings. The nearly saturated HLM model could only accommodate ethnicity coded as European American versus non-European American. Therefore, the HLM results provided only a rough estimate of the extent of ethnicity-based similarities or differences in the effects of PRS. To determine whether stressors have different correlates for children and adolescents of different ethnicities, we examined correlations between the different types of PRS (economic strain, discrimination, family conflict, family trouble/change, and violence/victimization) and psychological syndromes by ethnicity. These correlations are presented in Table 3. Overall, strong associations were found between the PRS components and many of the psychological syndromes for members of all ethnic groups. However, Fisher’s r-to-z transformation comparisons yielded eight significant differences between pairs of correlations, mostly reflecting differences between African Americans and Latinos for family troubles. These comparisons showed an absence of association between family trouble and most psychological syndromes for African American families, whereas both Latino and European American families showed associations.

**Discussion**

This study provides some of the most in-depth information available regarding how multiple members of families cope with stressors created by poverty. The results confirm that PRS is associated with elevated psychological symptoms for family members across multiple age groups, across ethnicities, and across gender. The study also revealed that the psychological correlates of PRS and how family members cope with PRS differ in several important ways.

Numerous studies have examined the effects of stress by age, but most studies involved either children or adults (e.g., Mroczek & Almeida, 2004; Ronen, Rahav, & Rosenbaum, 2003). We are aware of no studies that compare the effects of PRS across children, adolescents, and adults. Our results suggest that adults in these financially challenged families show more symptoms than children, but the link between PRS and symptoms is stronger for children than adults. This may be due to the lack of control that children have over PRS. In addition, PRS may be especially detrimental during development.
Figure 1. Interaction of age and poverty-related stress (PRS) in predicting anxious/depressed symptoms.

Figure 2. Interaction of age and poverty-related stress (PRS) in predicting aggressive behavior.
Exposure to cumulative risk during childhood not only affects mental health but is related to a range of negative physiological measures that translate into compromised functioning in multiple realms, such as academics and physical health (Evans, Kim, & Ting, 2007). Perhaps most troubling, from a resiliency perspective, is that exposure to PRS appears to hinder the development of effective coping abilities (e.g., Wadsworth & Compas, 2002).

The effects of gender on symptoms are in the usual direction, with female family members showing higher levels of anxious/depressed and somatic complaints. Similarly, the effects of gender on the links between PRS and symptoms are consistent with other research showing females to have higher vulnerability to stress. Women report more stressful events than men and show a stronger relationship between stress and symptoms, suggesting heightened vulnerability to stress for women (Sandanger et al., 2004). Similarly, teen girls report more stressors than teen boys (Hankin et al., 2007), and moderation analyses also reveal that girls have greater reactivity to stress when compared with boys (Hankin et al., 2007). Our results are consistent with these findings, as high levels of PRS appear to be particularly detrimental for females. This effect was also found with aggression and attention problems, showing that at low levels of stress, male family members have higher levels of aggressive behavior and attention problems, consistent with prevalence rates. However, higher levels of stress exacerbate symptoms more strongly for females, demonstrating vulnerability to stress for externalizing symptoms in addition to internalizing symptoms.

Not surprisingly, the gross comparison of European American and non-European American family members yielded little information. Follow-up analyses suggested that this crude dichotomy could have masked some cross-ethnic diversity in stress effects. The correlations between PRS and symptoms by ethnicity suggest that African American families, in particular, may be less affected by family troubles than European American and Latino families. This finding does not reflect different levels of family troubles across ethnic groups but rather the absence of an association between family troubles and most psychological syndromes for the African American families in this sample. This may reflect particular strengths in African American families that protect members against the disruptions and changes reflected on this scale (e.g., Hurd, Moore, & Rogers, 1995; Mosley-Howard, & Evans, 2000). Overall, however, there were few significant differences between the groups, which is largely consistent with existing research on family economic stress models with families from diverse ethnic backgrounds (e.g., Conger et al., 2002; Mistry et al., 2002). Thus, our findings support the notion that, regardless of what form PRS takes, in total it has damaging effects on family functioning, even while individual types of stressors may be differentially applicable to different racial or ethnic group members. Thus, these results support casting

![Figure 3. Interaction of sex and poverty-related stress (PRS) in predicting aggressive behavior.](image-url)
the wider PRS net, as a narrow focus on economic strain or discrimination misses the variety of problems that such youths face and may underestimate the effects of stress on the development of psychopathology for families in poverty.

Coping was associated with fewer symptoms of all types. Some specificity was found for different types of symptoms, though both primary and secondary control coping were negatively related to six of the seven syndromes. These

Figure 4. Interaction of secondary control coping and poverty-related stress (PRS) in predicting anxious/depressed symptoms.

Table 3
Correlations Between Child and Adolescent Poverty-Related Stress and Psychological Syndromes by Ethnic Group

<table>
<thead>
<tr>
<th>Stressor</th>
<th>Anxious/ depressed</th>
<th>Withdrawn</th>
<th>Somatic complaints</th>
<th>Social problems</th>
<th>Thought problems</th>
<th>Attention problems</th>
<th>Aggressive behavior</th>
<th>Delinquent behavior</th>
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*Note. Within columns, pairs of correlations with different subscripts are significantly different at p < .05.
* p < .05. ** p < .01
results build on our prior cross-sectional (e.g., Wadsworth & Compas, 2002), longitudinal (e.g., Wadsworth & Berger, 2006), and experimental (e.g., Raviv & Wadsworth, 2006) work establishing that coping is a valuable resource for family members exposed to PRS. A traditionally defined buffering effect (e.g., interaction between coping and PRS) was found only for secondary control and anxious/depressed symptoms, whereas direct effects of coping were found for the other syndromes. It is possible that primary and secondary control coping are coping types that are particularly powerful for internalizing problems. Weisz, Southam-Gerow, Gordis, & Connor-Smith’s (2003) ‘efficacious primary and secondary control enhancement training (PaSCET)’ depression treatment program zeroes in on these two types of coping in particular.

The present study expands prior work that has traditionally focused on a fairly narrow array of psychological problems, usually depression and delinquency. Wadsworth and Achenbach (2005) established that low childhood SES was associated with increased risk for many psychological syndromes over time, such as attention problems and thought problems in addition to aggressive and anxious/depressed behavior. The current study shows that this pattern of broader effects holds for multiple age groups and ethnic groups and that the benefits of primary and secondary control coping also apply more broadly. Why would primary and secondary control coping be helpful for problems such as attention problems or thought problems? We suggest that these two forms of coping (as conceptualized by the responses to stress model) target emotional, cognitive, behavioral, and physiological responses and are applicable to a wide array of stressful challenges and responses, including psychological and physiologic symptoms (e.g., Thomsen, Compas, Colletti, Stanger, Boyer, & Konik, 2002).

The results of the current study help expand family economic stress models beyond descriptions of risk processes by including a potential source of resiliency: coping. Coping effectively with the stressors created and exacerbated by poverty has the potential to buffer families from developing various types of problems. Two types of coping, in particular, appear to have efficacy for coping with PRS, as primary and secondary control coping both predicted fewer psychological symptoms of all types, even while simultaneously accounting for the pernicious effects of PRS. Bolstering the ability of adults in a family to cope with PRS has the potential to break key links in the family economic stress models by reducing the psychological distress that ties PRS to the rest of the problems that wreak havoc on a family. Simultaneously bolstering children’s own ability to cope with PRS can provide further armor against the development of psychological problems in the face of PRS.

Despite several strengths, this study has some limitations. The analyses were conducted with cross-sectional data, which raises questions regarding directionality of effects. However, these results have very high correspondence with longitudinal and experimental work showing both the pernicious effects of PRS and the protective nature of primary and secondary control coping. Future research replicating our model with longitudinal and experimental designs will lend even greater support. Additionally, the sample size is relatively small, though sufficiently powered for these analyses. Despite the size limitations of the sample, it is representative of the low-income population of the Denver metropolitan area in terms of racial/ethnic composition and income levels.

The present study has important implications for intervention with families in poverty. Examination of protective factors in those exposed to the stressors of poverty is exceedingly important. Bolstering individuals’ and families’ abilities to avoid psychological problems as they navigate through life in poverty does not solve the problem of poverty. What it does have the potential to do, however, is allow children to grow and develop unhampered (or less hampered) by psychological problems that can interfere with educational attainment, social functioning, and optimal physiological development. Thus, the time is ripe to incorporate the results of this study and the corpus of work on which it builds into intervention research, especially evaluations of coping-based family-focused preventive interventions. In addition to assisting parents and children in learning how to cope with their own PRS, for example, parents can be taught how to support and encourage their children’s coping. Such interventions will ideally bolster the coping skills of both parents and children, thereby giving children in these families a double dose of protection.

References


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