



Published in final edited form as:

*J Fam Psychol.* 2010 August ; 24(4): 468–477. doi:10.1037/a0019870.

## Life Stress, Maternal Optimism, and Adolescent Competence in Single Mother, African American Families

**Zoe E. Taylor**

University of California, Davis

**Dannelle Larsen-Rife**

Dixie State College

**Rand D. Conger**

University of California, Davis

**Keith Widaman**

University of California, Davis

**Carolyn E. Cutrona**

Iowa State University

### Abstract

Although research demonstrates many negative family outcomes associated with single-parent households, little is known about processes that lead to positive outcomes for these families. Using 3 waves of longitudinal data, we examined how maternal dispositional optimism and life stressors are associated with parenting and child outcomes in 394 single mother African American families. Confirming prior research, we found that mothers' childhood adversities, current economic pressure, and internalizing problems were associated with lower levels of maternal warmth and child management and with lower child school competence. Extending previous studies, we found that maternal optimism was a positive resource, predicting lower levels of maternal internalizing symptoms and higher levels of effective child management and moderating the impact of economic stress on maternal internalizing problems. These findings highlight the need for further investigation of processes and resources that promote positive outcomes for African American mother-headed families and single mother families in general.

### Keywords

Optimism; Single mothers; Resilience; Economic Stress; Childhood Adversity

---

Mother-headed households remain susceptible to a variety of risks ranging from economic hardship to poor psychological functioning (Brown & Moran, 1997; Murry, Bynum, Brody, Willert, & Stephens, 2001). African American families are especially vulnerable to these risks as 63% of African American families are mother-headed households, compared to 33% in the general population (U.S. Census Bureau, 2006). A larger percentage of African American children also live in poverty compared to the general population (McLoyd, 1998). Research has most often focused on risks associated with single motherhood, whereas research that addresses protective factors that effect these families' lives remains relatively scarce (Murry et al., 2001). Understanding how single mother families successfully cope with stress is

particularly important given the high rates of stressors single mothers experience and the negative influences these stressors have on their children.

Our study is guided by the Family Stress Model (FSM), which posits that economic pressure creates hardship-related emotions and behaviors for parents. These processes negatively influence parenting quality by decreasing parental warmth, support and involvement, which in turn increases risk for child internalizing and externalizing problems (Conger & Conger, 2002). The FSM has been validated with diverse samples, including two-parent African American families (Conger, Wallace, Sun, Simons, McLoyd, & Brody, 2002) and single mother minority families (Mistry, Vandewater, Huston, & McLoyd, 2002).

We extend earlier research on the FSM by examining positive maternal characteristics that we hypothesize will disrupt this family stress process and promote successful outcomes in mother-headed, African American families. The key protective variable in this extension of the FSM involves the dispositional optimism of single mothers. As few studies in positive psychology have addressed constructs such as dispositional optimism with minority ethnic groups (Constantine & Sue, 2006) this report also addresses an important gap in this literature. Our study also extends the FSM in important ways. First, we uniquely address how dispositional optimism counteracts the stress processes described in the FSM. Second, we extend the model by examining whether maternal childhood adversity predicts later economic pressure as well as poor family functioning. Last, we test predictions from the FSM over time, improving on earlier research that has used cross-sectional data (Conger, et al., 2002; Mistry et al., 2002).

Specifically, our model (Figure 1) predicts that childhood adversity is associated with later economic pressure, internalizing problems, and ineffective parenting behaviors. We next predict that economic pressure will negatively influence maternal psychological functioning, and disrupt parenting behaviors that are positively related to adolescent competence. Most important, our model proposes that maternal optimism is an important psychological resource that reduces risk for internalizing symptoms, promotes positive parenting behaviors in the face of environmental adversity, and predicts positive child outcomes. In the next section, we provide the theoretical and empirical underpinnings for the conceptual model (Figure 1) guiding this research.

## Theoretical and Empirical Background

### Dispositional Optimism: A Psychological Resource

Enduring psychological resources play an important role in moderating the pernicious influence of environmental adversity (Kessler, Price, & Wortman, 1985; Luthar, 2006). Resilience is a process or pattern of positive adaptation in the context of significant threats to an individual's development or functioning (Masten & Wright, 2009). Resilience factors can include compensatory, or main effect, resources that counteract negative effects of adversity on competent functioning, as well as protective, or moderating, factors which alter the nature of the relation between adversity and adaptation, such that when high levels of a resource variable are present, adversity is much less likely to reduce competent functioning (Masten & Wright, 2009).

Dispositional optimism is a characteristic that may promote resilient functioning. Scheier and Carver (1985) described dispositional optimism as a relatively stable, general tendency of individuals to expect positive outcomes. Individuals high in optimism typically have better psychological adjustment to negative life events, report less distress across a broad range of stressful situations, have more positive social networks, and enjoy better physical health (Brisette, Scheier, & Carver, 2002; Nes & Sergerstrom, 2006; Taylor & Stanton, 2007).

Optimistic individuals are also more likely to persevere in times of crisis, show higher self-efficacy, and adapt to stressors more effectively (Wrosch & Scheier, 2003).

Studies with various ethnicities have demonstrated that higher levels of dispositional optimism predict lower levels of depression and stress (Grote, Bledsoe, Larkin, Lemay, & Brown, 2007; Grote & Bledsoe, 2007; Kochanska, Aksan, Penney, & Boldt, 2007). Dispositional optimism is also linked to positive parenting practices. Hjelle, Busch, and Warren (1996) found that maternal optimism was positively related to maternal warmth and negatively related to aggression, hostility, indifference, and neglect during middle childhood. Brody and colleagues have importantly demonstrated that African American single mothers with more optimistic outlooks and higher self-esteem are more likely to use competence-promoting parenting practices, which predict higher child cognitive competence, social competence, and psychological adjustment (Brody & Flor, 1997; Brody, Murry, Kim, & Brown, 2002; Jones, Forehand, Brody, & Armistead, 2002; Kim & Brody, 2005). Finally, studies report that maternal optimism is positively associated with a more structured family routine (Taylor, Rodriguez, Seaton, & Dominguez, 2004).

Thus, research suggests that dispositional optimism helps maintain positive functioning and parenting during times of stress. However, studies have not addressed whether optimism can moderate stress processes. Therefore, our model predicts that dispositional optimism will serve as a psychological resource for African American single mothers by directly reducing their emotional distress and improving their parenting skills, as well as moderating or buffering the potentially negative impacts of life stressors (Figure 1).

### Risks and Vulnerabilities in Mother-headed Families

Research indicates that single mothers are vulnerable to internalizing problems and ineffective parenting behaviors as a result of early childhood adversity as well as current life stressors such as economic pressure. A hallmark of life course theory is that early life experiences shape future life outcomes such as socioeconomic status, mental health, and marital patterns (Elder & Shanahan, 2006). Early adversity also affects development of characteristics that reduce competence and increase vulnerability and negative developmental trajectories in later life. Studies show that exposure to adverse environments influences children's developmental trajectories and has a cascading negative influence on mental and physical health by creating risk of future stress or by exacerbating genetically based vulnerabilities (Kessler, Gillis-Light, Magee, Kindler, & Eaves, 1997; Repetti, Taylor, & Seeman, 2002). Parenting quality and behaviors in one's family of origin can also influence how individuals behave when they themselves become parents (Pears & Capelin, 2001). Single mothers are at considerable risk for psychopathology as they typically report higher levels of childhood adversities and negative family-of-origin characteristics than married mothers (Avison, Ali, & Walters, 2007; Cairney, Boyle, Offord, & Racine, 2003; Davies, Avison, & McAlpine, 1997). For example, Avison, Ali, & Walters (2007) found that single mothers were more likely than married mothers to report that their parents had serious problems with alcohol, drugs, and depression. Thus, it is evident that early adversity can have lasting repercussions for maternal and family functioning.

**Current life stressors**—A number of studies demonstrate that single mothers have higher levels of internalizing symptoms, especially depression, compared to married mothers, largely as a result of greater stress exposure (Afifi, Cox, & Enns, 2006; Amato, 2000; Brown & Moran, 1997; Davies, et al., 1997; Simons, Beaman, Conger, & Chao, 1993). In particular, poor psychological functioning is linked to the financial hardships experienced by single mothers (Brown & Moran, 1997; Hope, Power, & Rodgers 1999; Jackson, Brooks-Gunn, Huang, Glassman, 2000; Mistry, et al., 2002). Single mothers typically have fewer economic resources and social capital than two-parent households (Duncan, Brooks-Gunn, & Klebanov, 1994;

Harknett, 2006), and are more likely to have less education, lower income levels, and be younger in age than married mothers (Cairney et al., 2003). African American women also report more total and chronic stressors than European American women (Grote et al., 2007). Our model predicts that past childhood adversity, as well as current economic pressure, predict maternal internalizing symptoms and ineffective parenting behaviors in single mothers (Figure 1).

### Parenting Behaviors and Child Outcomes

Stress and psychological vulnerabilities negatively influence parenting quality through behaviors such as ineffective monitoring of children, harsh or hostile parenting, and inconsistent parenting (Cain & Combs-Orme, 2005; Cairney et al., 2003; Simons et al., 1993). Distressed parents are typically less affectionate and report feeling less capable in disciplinary interactions with their children (Mistry, et al., 2002). These types of poor parenting behaviors predict lower levels of children's positive social behavior and higher ratings of behavior problems (Simons et al., 1993). Prior research shows that children from single mother families are at increased risk of maladjustment as a result of exposure to adverse environments resulting from poverty, parental internalizing symptoms, and ineffective parenting (Duncan et al., 1994; Jones, et al., 2002; McLoyd, 1998). Research has determined that children in two-parent families have better cognitive and behavioral outcomes than children from single-parent families and are typically more advantaged in terms of family income, home environment, and maternal characteristics such as education level (Amato, 2000; Carlson & Corcoran, 2001; Hetherington, Bridges, & Insabella, 1998; Ricciuti, 2004). Also important, the transition to adolescence is a particularly vulnerable time as youth begin to exhibit lower social competence, declines in academic performance, and increased levels of delinquency (Scaramella, Conger, & Simons, 1999).

In short, single mothers face a number of economic and psychological challenges. These challenges are detrimental not only to individual well being, but additionally impact parenting quality and child outcomes. Importantly, our research addresses how dispositional optimism may moderate these expected negative pathways by providing a psychological resource for coping with stress that enhances maternal functioning and promotes child competence. In the following analyses, we test propositions from the conceptual model (Figure 1).

## Method

### Sample

The Family and Community Health Study (FACHS) originated in the mid-1990s as a study of 889 African American children, their primary caregivers, and an older sibling (if present), in Iowa and Georgia. Data collection began in 1997 (W1), with subsequent waves of data collection in 1999–2000 (W2), 2002–2003 (W3), and 2005–2006 (W4). The primary caregiver was the biological mother in 748 (84%) of the families. Study participants were recruited by telephone. Interviews were completed with 72% of eligible Iowa families and just over 60% of eligible Georgia families. These rates are comparable to other community samples (Conger et al., 2002). Of the 889 participants at W1, 86.7% participated in W2 and W3 interviews. Detailed selection and interview procedures for the full sample are described in prior work (Conger et al., 2002).

The present study uses data from 394 single mother families, or 53% of the original 748 families with biological mothers. Waves W1 through W3 were used as these correspond roughly to the early adolescent years. At W1 mean age of children was 10.5 (SD .54) with 56% girls. Children's mean age at W3 was 15.48 (SD .90). Only mothers who were not married or living with someone in a marriage-like relationship at W1 were included. Mothers were never-

married in 54% ( $N = 214$ ), and divorced ( $N = 102$ ), widowed ( $N = 19$ ) or separated ( $N = 59$ ) in 46% of the sample. Mothers' mean age was 35.1 years ( $SD\ 6.00$ ), mean education was 12.3 years ( $SD\ 1.97$ ), mean income was \$20,689 ( $SD\ \$16,322$ ), and mean number of children was 1.78 ( $SD\ .96$ ). Of our original mothers, 6.3% ( $N = 25$ ) were married in W2, and 12.7% ( $N = 50$ ) in W3.

## Measures

We discuss measures proceeding from left to right across the conceptual model (Figure 1). Latent variables were used for all modeled constructs, with the exception of childhood adversity that was a sum of negative childhood events. The  $N$ s, means, and standard deviations for all indicators used in the latent constructs are provided in the Appendix.

**Mother's childhood adversity**—Mother's childhood adversity, reported at W1, was adapted from Kessler et al. (1997). This variable was an index of the sum of answers to eight questions asking whether the mother experienced specific adverse childhood events such as “did anyone in your home have a serious drinking problem?” Responses were coded as 0 = no and 1 = yes. The mean score was 2.27 ( $SD = 1.70$ ).

**Economic pressure**—Economic pressure was reported by mothers at W1 and measured by four indicators: unmet material needs, can't make ends meet, financial cutbacks, and no money. These measures have demonstrated good reliability and predictive validity (Conger & Conger, 2002). Each indicator was coded such that a higher score reflected greater economic pressure. For the *unmet material needs* indicator (UN), mothers reported on a scale ranging from strongly agree (1) to strongly disagree (4) whether they could afford adequate housing, clothing, food, and medical care ( $\alpha = .81$ ). For the *can't make ends meet* indicator (CM), mothers reported on (a) difficulty paying bills during the past 12 months, with responses ranging from no difficulty at all (1) to a great deal of difficulty (5); and (b) the amount of money left at the end of the month on a scale from more than enough money left over (1) to not enough to make ends meet (5) ( $\alpha = .67$ ). *Financial cutbacks* (FC) were measured by asking mothers to respond to 14 items regarding their adjustments to financial need (1 = yes, 0 = no) during the past 12 months, such as postponement of purchases, change of residence, and so forth. These items were summed to form an index of cutbacks made in response to financial need, which had a mean score of 1.78 ( $SD = 0.21$ ). *No money* (NM) consisted of a single question asking “How often in the past year have you had no money at all?” Responses were often (1), sometimes (2), and never (3). This item was reverse-coded and had a mean of 1.90 ( $SD = 0.67$ ).

**Mother's optimism**—Maternal optimism was reported by the mother at W1 of data collection using eight items from the Life Orientation Test (LOT; Scheier & Carver, 1985). Responses used a four-point scale ranging from strongly agree (1) to strongly disagree (4). Scores were recoded so that a high score indicated high optimism. Sample items included “In uncertain times, you usually expect the best” ( $\alpha = .69$ ). Items were randomly assigned to three indicators (O1 – O3). Kishton and Widaman (1994) recommended random assignment of items to parcels for items in a unidimensional scale, so that item assignment to parcels is not based on a biased form of assignment that would capitalize on chance in providing optimal fit to the current data set.

**Mothers' internalizing symptoms**—This latent variable was reported at W2 and consisted of three indicators of maternal internalizing symptoms from the Mini Mood and Anxiety Symptom Questionnaire (Clark & Watson, 1995). Mothers reported how often they had experienced internalizing symptoms during the past week. Responses for each item ranged from not at all (1) to extremely (3). Items were scored to reflect negative well-being. *General depression* (GD) was measured with a five-item scale asking whether the individual had felt

depressed, discouraged, hopeless, like a failure, and worthless over the past week ( $\alpha = .81$ ). *Anhedonic depression* (AD) included eight items such as whether the individual had felt withdrawn from other people, or felt like nothing was very enjoyable ( $\alpha = .81$ ). The *anxiety* (AN) scale included three items asking whether the individual had felt tense or high strung, uneasy, and on edge ( $\alpha = .76$ ).

**Warm parenting**—This measure was reported at W2 by the target child, and consisted of items measuring low maternal hostility and high maternal warmth from the Behavioral Affect Rating Scale (BARS). *Low maternal hostility* was measured on a scale from always (1) to never (4) with questions asking how often, over the past 12 months, the mother engaged in seven different hostile behaviors, such as criticizing or getting angry. Questions were coded so that high scores reflected low hostility ( $\alpha = .75$ ). *High maternal warmth* was measured on the same 1–4 point scale and asked how often the mother engaged in nine supportive behaviors, such as helping the target or being affectionate. Questions were coded so that high scores reflected high warmth ( $\alpha = .87$ ). These measures have also demonstrated adequate reliability and validity in earlier research (Conger et al., 2002). Items were randomly divided into three indicators (W1 – W3) to form a Warm Parenting variable reflecting a combination of high maternal warmth and low maternal hostility as discussed in Kishton & Widaman (1994).

**Effective child management**—Effective child management had two indicators: family routines and parenting skills. This variable was reported by the mother during W2 of data collection. These parenting measures were adapted for the FACHS study from instruments developed for the Iowa Youth and Families Project (Conger & Conger, 2002). The measure of *family routines* (FR) included eight questions such as “How often do you help [target child] with his/her homework?” Items were scored on a four-point scale with 1 = every day; 2 = almost every day; 3 = 1–2 times a week; and 4 = never. Items were reverse coded so that a high score reflected greater consistency in family routines ( $\alpha = .59$ ). *The parenting skills, knowledge, and methods* (PS) measure included 27 items such as “I discuss with [target] ahead of time what the consequences or penalties will be if [he/she] does something wrong.” Items ranged from strongly agree (1) to strongly disagree (5) on some items, and from never (1) to always true (5) on others. Items were recoded so that a higher score indicated higher parental skills ( $\alpha = .90$ ).

**School competence**—School competence was reported by the child at W1 and W3 and used two measures: school performance and school attachment. *School performance* was constructed for the FACHS study from diverse sources. Seven items were measured on a 4-point scale ranging from strongly agree (1) to strongly disagree (4). Items were recoded so that a higher score reflected greater school performance. Sample items included questions such as “You try hard at school.” The school performance scale had an internal consistency reliability of .79 at W1 and .81 at W3. *School attachment* included six items compiled from diverse sources. Five items were scored from strongly agree (1) to strongly disagree (4). One item ranged from often (1) to never (4). Items were recoded so that a higher score indicated higher school attachment. Items included “You feel very close to at least one of your teachers.” The school attachment scale had an internal consistency reliability of .66 at W1 and .65 at W3. In order to form a latent variable reflecting school competence, items from these scales were randomly divided into three indicators (C1 – C3), again following the Kishton and Widaman (1994) recommendation.

**Control variables**—We controlled for the following demographic variables in the analysis: mothers' age (in years), mother's marital status at W2, child's age (in years), child's gender, and child's school competence at W1. Prior research has demonstrated these variables influence

parenting behaviors as well as child outcomes in single mother families (Amato, 2000; Cairney et al., 2003; Scaramella et al., 1999).

### Analysis Strategy

We used structural equation modeling (SEM) to evaluate predictions from the conceptual model (Figure 1). Statistical models were fit to data using the Mplus program Version 5 (Muthén & Muthén, 2007). To evaluate fit of a structural model to data, we used the standard chi-square index of statistical fit that is routinely provided under maximum likelihood estimation of parameters. We also used several indices of practical fit, including the root mean square error of approximation (RMSEA), the Tucker-Lewis index (TLI), and the comparative fit index (CFI). First, we fit a confirmatory factor analysis model, identifying the model by fixing all latent variable variances to unity and allowing free correlations among latent variables. Next we specified a restricted structural model consistent with the conceptual model (Figure 1). In this model, we identified latent variables by fixing one factor loading for each latent variable to the value of the factor loading from the initial confirmatory factor analysis. This ensured that all latent variables in the model would have unit variance, which improves interpretability of estimates, especially in models with interactions. Widaman and Reise (1997) have discussed this approach as one of several ways to identify structural models to yield parameter estimates in a more interpretable metric.

The model was first tested without interaction effects. Mplus does not provide overall model fit statistics for models with latent variable interactions as interaction terms give rise to non-normal outcomes and sample covariance matrices are not sufficient statistics. The model was then run including interaction effects of material optimism to test the statistical significance of the predicted interaction effects. We used full information maximum likelihood (FIML) estimation given the presence of some missing data. FIML estimation involves the fitting of covariance structure models directly to the raw data from each participant rather than to covariances among manifest variables. This avoids deleting persons with missing data (i.e., such as in listwise deletion). FIML estimation has been found to be efficient and unbiased when data are missing at random and appears to be less biased than standard approaches (Arbuckle, 1996).

### Results

Correlations among latent variables from the confirmatory factor analysis produced the expected associations (Table 1). For example, mother's childhood adversity was significantly correlated with mother's internalizing symptoms ( $r = .20, p < .01$ ). The control for W2 marital status was uncorrelated with any variables and was removed from further analyses. The statistical index of fit for the confirmatory factor analysis indicated significant statistical misfit,  $\chi^2(276, N = 394) = 456, p < .05$ , but practical fit indices were acceptable, with RMSEA of .041, and CFI and TLI values of .931 and .919, respectively. As noted, we then respecified the model, fixing one loading per latent variable to the value obtained in the confirmatory factor analysis. Loadings of manifest indicators on latent variables were all statistically significant ( $p < .01$ ), and relatively large, ranging between .55 and .89 (median = .74) in standardized metric (Figure 1).

The next step in the analysis was to test the theoretical model in Figure 2. The restricted structural model once again had a significant statistical index of fit,  $\chi^2(294, N = 394) = 410, p < .01$ . However, the practical fit indices were good, with RMSEA of .032, and CFI and TLI values of .955 and .947, respectively. Results for the structural equation model are provided in Figure 2.

### Optimism as a psychological resource

As hypothesized, Maternal Optimism at W1 negatively predicted Maternal Internalizing Symptoms at W2 ( $\beta = -.40$ ,  $SE = .09$ ,  $p < .01$ ), consistent with our hypothesis that optimism serves as a direct psychological resource. Additionally, Maternal Optimism was significantly related to Effective Child Management ( $\beta = .32$ ,  $SE = .12$ ,  $p < .05$ ), although not to Maternal Warmth. As expected, Maternal Optimism and Economic Pressure were significantly negatively correlated ( $\beta = -.25$ ,  $SE = .06$ ,  $p < .01$ ). Moreover, the interaction between Maternal Optimism and Economic Pressure predicting Maternal Internalizing Symptoms was statistically significant ( $\beta = -.24$ ,  $SE = .09$ ,  $p < .01$ ). Other hypothesized interaction effects were not significant.

Figure 3 demonstrates the relationship between economic pressure and maternal internalizing symptoms for participants varying in optimism, where high and low optimism represented scores 1.5 standard deviations above and below the mean, respectively. Optimism had no effect on the relationship between economic pressure and internalizing symptoms when economic pressure was low. However, optimism had an increasingly positive effect as economic pressure increased. When economic pressure was high, those with high optimism had levels of internalizing symptoms that were more than 1.5 SD units lower than levels of internalizing symptoms exhibited by those who had low optimism.

### Life stressors and family functioning

As hypothesized, Figure 2 shows that Mothers' Childhood Adversity significantly predicted Economic Pressure ( $\beta = .26$ ,  $SE = .06$ ,  $p < .01$ ), and also negatively predicted maternal optimism ( $\beta = -.12$ ,  $SE = .06$ ,  $p < .05$ ). Additionally, Mother's Childhood Adversity was positively associated with Maternal Internalizing Symptoms at a trend level ( $\beta = .10$ ,  $SE = .06$ ,  $p < .10$ ), as well as being negatively related to both Warm Parenting ( $\beta = -.31$ ,  $SE = .08$ ,  $p < .01$ ) and Effective Child Management ( $\beta = -.15$ ,  $SE = .10$ ,  $p < .10$ ). Consistent with study hypotheses, Economic Pressure at W1 predicted Maternal Internalizing Symptoms at W2 ( $\beta = .29$ ,  $SE = .13$ ,  $p < .05$ ), which in turn, was negatively related to Effective Child Management ( $\beta = -.18$ ,  $SE = .09$ ,  $p < .05$ ). Maternal internalizing symptoms were not significantly associated with Warm Parenting.

### Parenting and child competence

As hypothesized, parenting behaviors at W2 predicted greater child competence at W3, after controlling for child competence at W1. That is, these parenting behaviors were associated with relative increases in child competence over time. Both Effective Child Management ( $\beta = .28$ ,  $SE = .11$ ,  $p < .01$ ) and Warm Parenting ( $\beta = .23$ ,  $SE = .07$ ,  $p < .01$ ) were significantly and positively associated with School Competence at W3. Consistent with the FSM, Mothers' Internalizing Symptoms did not directly predict child competence.

## Discussion

Researchers are increasingly assessing how families become resilient by highlighting the ways in which families are adaptive, competent, and successful (Conger & Conger, 2002; Patterson, 2002). However, research with underrepresented populations such as minority ethnic groups and single mothers, typically focuses on deficit models that highlight vulnerabilities within these families, but not their strengths or successes (Murry et al., 2001). In contrast, the goal of the present study was to examine maternal dispositional optimism as a protective factor for African American single mothers within the context of adverse conditions.

We found evidence that dispositional optimism serves as a psychological resource for single mothers by negatively predicting internalizing symptoms and positively predicting positive



parenting behaviors. Furthermore, maternal optimism moderated the magnitude of the relationship between economic pressure and maternal internalizing symptoms, demonstrating that, although economic pressure is related to internalizing problems, those who are optimistic show greater resilience to its negative effects. These findings are consistent with our model that hypothesized that dispositional optimism serves both as a promotive factor by directly predicting behaviors, as well as a moderator of the influences of adversity. Our results are also consistent with literature that suggests optimists adapt to stressors more effectively (Wrosch & Scheier, 2003). However, although maternal optimism had a promotive effect on internalizing symptoms, it did not moderate the link between internalizing symptoms and childhood adversity. One possible interpretation of this is that optimism may buffer the risks associated with proximal, or more controllable stressors, but be less effective against more distal stressors.

In addition, the results were consistent with basic tenants of the Family Stress Model (Conger & Conger, 2002). Our findings replicated prior findings of the FSM but importantly extended prior cross-sectional analyses to a longitudinal framework for studying African American single mothers. Our findings also augment the FSM by documenting how single mothers' developmental history contributes to later stress processes in adulthood. We found that childhood adversity may be particularly problematic for single mothers in that it is associated with risk and vulnerability in adulthood and detrimentally influences their parenting behaviors with their children. These findings support a model of parenting that links parents' behavior and their psychological well-being with their developmental history (Belsky, 1984). The findings are also consistent with research documenting how growing up in a risky family environment can have serious developmental influences across the lifespan (Repetti et al., 2002).

Contrary to our model, neither mothers' dispositional optimism nor internalizing symptoms were associated with warm parenting. Although some studies have found a negative significant path from internalizing symptoms to nurturant parenting (e.g. Mistry et al., 2002), other studies have also found these associations to be nonsignificant (Conger et al., 2002). This is most likely due to a difference in measurements. For example, Mistry et al. (2002)'s measure of parent's distress included indicators of depression and efficacy, whereas our measure solely used measures of internalizing symptoms. In regards to maternal optimism, it may be the case that dispositional optimism is more immediately linked to warm parenting, and that associations across time are not very strong. It may also be the case that maternal warmth is not as salient a factor during adolescence.

Accordingly, these results identify several avenues for prevention and intervention efforts. Although dispositional optimism is a relatively stable trait, research indicates that optimism is a coping mechanism that can be fostered through psychosocial intervention (Lioussis, Shochet, Milliar, & Biggs, 2009; Peterson, 2000; Taylor & Stanton, 2007). Modifying coping strategies and resources has the potential to help individuals manage stress and avoid compromising their mental health (Taylor & Stanton, 2007). Given the dual association with maternal internalizing problems (both a direct effect and through reducing the effect of economic pressure on internalizing symptoms), efforts to foster optimism may be particularly fruitful.

Also important is the recognition that many single mothers have lives characterized by frequent adversities that may impair positive functioning across their lifespans (Avison, 1999). Our study shows that interventions that focus on single mothers' developmental histories as well as their current circumstances may be particularly useful for promoting well-being in these families. Studies show a clear link between childhood adversity and poor coping later in life (Taylor & Stanton, 2007). Interventions that focus on reducing stressors, or offsetting some of the risks that have accumulated over the lifetime, are essential for increasing positive family

functioning in single mother households and in vulnerable families in general (Repetti et al., 2002). Additionally, the association between childhood adversity and parenting practices suggests an intergenerational transmission of familial risk factors. Intervention efforts can be targeted to youths experiencing familial adversity and parenting programs can focus on the effects of childhood adversity on current parenting practices.

Lastly, our findings add to an abundant literature suggesting that interventions that reduce the effects of economic pressure would be of considerable benefit for single mothers and their children. Growing up in a low socioeconomic household increases vulnerability to a wide array of risk factors that can have long-term developmental effects (Schoon, Sacker, & Bartley, 2003). Research has shown that an increase in income enhances parental functioning and improves child outcomes in poor families (Costello, Compton, Keeler, & Angold, 2003). Importantly, our study provides evidence that a psychological resource such as optimism can also be of benefit to individuals experiencing economic stress.

Several limitations of our study should be noted. First, mothers' childhood adversities involved retrospective reports. This measurement approach has the potential for answers being biased depending on the participants' current psychological state. However, this form of bias is less likely in the current study as we asked simply whether mothers had experienced certain events during their childhood, and not how they felt about them. Furthermore, maternal internalizing symptoms were not asked concurrently with reports of childhood adversities. Second, although this study used longitudinal data, it is not immune to the fact that excluded variables might explain the findings. For example, studies have found that children growing up in risky families are especially likely to exhibit health-threatening behaviors such as alcohol and drug abuse in adulthood (Repetti et al., 2002). Whether dispositional optimism moderates or negatively predicts externalizing problems should be tested in future research. Third, research suggests that optimists adjust better to stress and exhibit improved psychological well-being as a result of more effective coping strategies. However, this was not directly tested in this study. Further research should study which specific coping strategies make optimists more successful in dealing with stress. Fourth, future studies should assess how specific cultural issues, beliefs, and practices influence feelings of optimism and general well-being in single mothers (Constantine & Sue, 2006). Also, these findings should be replicated with other ethnicities. Although we would expect that dispositional optimism would have similar influences on single mothers from other ethnic groups, studies have demonstrated that a coping style that may be adaptive for one ethnic group may be less useful for other ethnic groups (Nioku, Jason, & Torres-Harding, 2005).

Despite these limitations, our findings provide evidence about characteristics of African American mother-headed families that serve to protect them from the negative consequences of hardship and stressful life events. Our results suggest that interventions that target parenting behaviors, individual dispositions, and prior childhood histories may be particularly beneficial for promoting healthy functioning in single mother families. Determining the factors that help single mothers become more resilient to difficult circumstances is crucial for increasing mothers' psychological well-being and improving their parenting behaviors. Our findings highlight the need for further investigation of processes that promote resilience and result in positive outcomes for African American single mother families and single mother families in general.

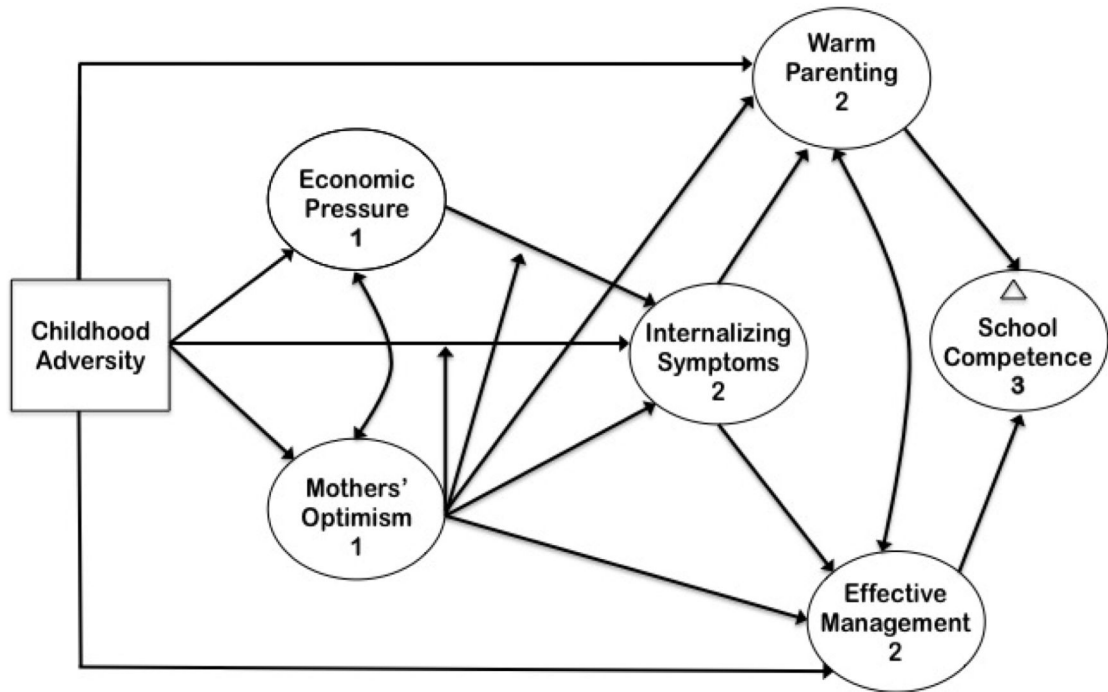
## References

- Afifi TO, Cox BJ, Enns MW. Mental health profiles among married, never married, and separated/divorced mothers in a nationally representative sample. *Social Psychiatry and Psychiatric Epidemiology* 2006;41(2):122–129. [PubMed: 16467954]

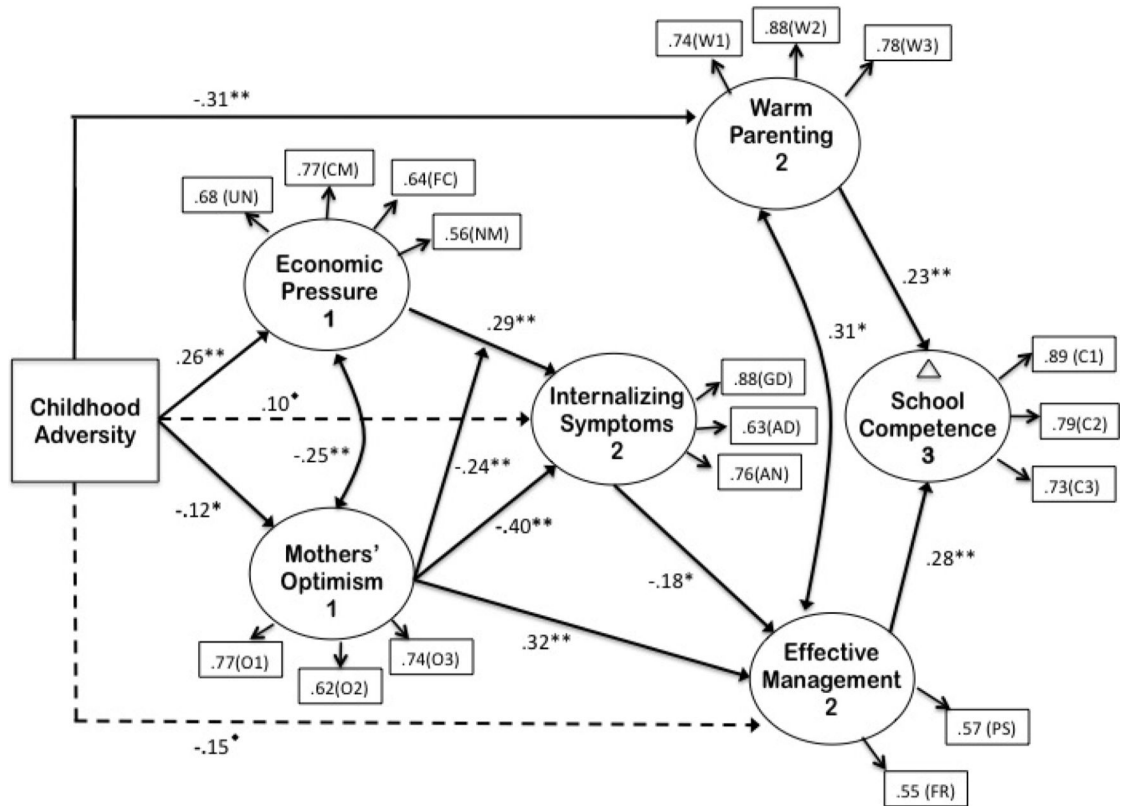
- Amato PR. The consequences of divorce for adults and children. *Journal of Marriage and the Family* 2000;62:1269–1287.
- Arbuckle, JL. Full information estimation in the presence of incomplete data. In: Marcoulides, GA.; Schumacker, RE., editors. *Advanced structural equation modeling: Issues and techniques*. Erlbaum; Mahwah, NJ: 1996. p. 243-277.
- Avison, WR. Family structure and processes. In: Horwitz, AV.; Scheid, TL., editors. *A handbook for the study of mental health: Social contexts, theories, and systems*. Cambridge University Press; New York: 1999. p. 1228-1240.
- Avison WR, Ali J, Walters D. Family structure, stress, and psychological distress: A demonstration of the impact of differential exposure. *Journal of Health and Social Behavior* 2007;48:301–317. [PubMed: 17982870]
- Belsky J. The determinants of parenting: A process model. *Child Development* 1984;55:83–96. [PubMed: 6705636]
- Brissette I, Scheier MF, Carver CS. The role of optimism in social network development, coping, and psychological adjustment during a life transition. *Journal of Personality and Social Psychology* 2002;82:102–111. [PubMed: 11811628]
- Brody GH, Flor DL. Maternal psychological functioning, family processes, and child adjustment in rural, single-parent, African American families. *Developmental Psychology* 1997;33:1000–1011. [PubMed: 9383622]
- Brody GH, Murry VM, Kim S, Brown AC. Longitudinal pathways to competence and psychological adjustment among African American children living in rural single-parent households. *Child Development* 2002;73:1505–1516. [PubMed: 12361315]
- Brown GW, Moran P. Single mothers, poverty and depression. *Psychological Medicine* 1997;27:21–33. [PubMed: 9122302]
- Cain DS, Combs-Orme T. Family structure effects on parenting stress and practices in the African American Family. *Journal of Sociology and Social Welfare* 2005;32:19–40.
- Cairney J, Boyle M, Offord D, Racine Y. Stress, social support and depression in single and married mothers. *Social Psychiatry and Psychiatric Epidemiology* 2003;38:442–449. [PubMed: 12910340]
- Carlson MJ, Corcoran ME. Family structure and children's behavioral and cognitive outcomes. *Journal of Marriage & the Family* 2001;63:779–792.
- Clark, LA.; Watson, D. *The Mini Mood and Anxiety Symptom Questionnaire (Mini-MASQ)*. University of Iowa; 1995. Unpublished manuscript
- Conger R, Conger KJ. Resilience in Midwestern families: Selected findings from the first decade of a prospective longitudinal study. *Journal of Marriage and Family* 2002;64:361–373.
- Conger RD, Wallace LE, Sun Y, Simons RL, McLoyd VC, Brody G. Economic pressure in African American families: A replication and extension of the family stress model. *Developmental Psychology* 2002;38:179–193. [PubMed: 11881755]
- Constantine MG, Sue DW. Factors contributing to optimal human functioning in people of color in the United States. *The Counseling Psychologist* 2006;34:228–244.
- Costello EJ, Compton SN, Keeler G, Angold A. Relationships between poverty and psychopathology: A natural experiment. *JAMA* 2003;290:2023–2029. [PubMed: 14559956]
- Davies L, Avison WR, McAlpine DD. Significant life experiences and depression among single and married mothers. *Journal of Marriage & the Family* 1997;59:294–308.
- Duncan GJ, Brooks-Gunn J, Klebanov PK. Economic deprivation and early childhood development. *Child Development* 1994;65:296–318. [PubMed: 7516849]
- Elder, GH.; Shanahan, MJ. The life course and human development. In: Lerner, RM.; William, D., editors. *Handbook of child psychology (6th ed.): Vol 1, Theoretical models of human development*. John Wiley & Sons Inc.; Hoboken, NJ: 2006. p. 665-715.
- Grote NK, Bledsoe SE. Predicting postpartum depressive symptoms in new mothers: The role of optimism and stress frequency during pregnancy. *Health & Social Work* 2007;32:107–118. [PubMed: 17571644]
- Grote NK, Bledsoe SE, Larkin J, Lemay EP, Brown C. Stress exposure and depression in disadvantaged women: The protective effects of optimism and perceived control. *Social Work Research* 2007;31:19–33.

- Harknett K. The relationship between private safety nets and economic outcomes among single mothers. *Journal of Marriage and Family* 2006;68:172–191.
- Hetherington EM, Bridges M, Insabella GM. What matters? What does not? Five perspectives on the association between marital transitions and children's adjustment. *American Psychologist* 1998;53:167–184. [PubMed: 9491746]
- Hjelle LA, Busch EA, Warren JE. Explanatory style, dispositional optimism, and reported parental behavior. *Journal of Genetic Psychology* 1996;157:489–499. [PubMed: 8955430]
- Hope S, Power C, Rodgers B. Does financial hardship account for elevated psychological distress in lone mothers? *Social Science & Medicine* 1999;49:1637–1649. [PubMed: 10574235]
- Jackson AP, Brooks-Gunn J, Huang C, Glassman M. Single mothers in low-wage jobs: Financial strain, parenting, and preschoolers' outcomes. *Child Development* 2000;71:409–1423.
- Jones DJ, Forehand R, Brody G, Armistead L. Positive parenting and child psychosocial adjustment in inner-city, single-parent, African American families: The role of maternal optimism. *Behavior Modification* 2002;26:464–481. [PubMed: 12205822]
- Kessler, RC.; Gillis-Light, J.; Magee, W.; Kindler, K.; Eaves, LJ. Childhood adversity and adult psychopathology. In: Gothic, I.; Wheaton, B., editors. *Stress and adversity over the life course: Trajectories and turning points*. Cambridge University Press; New York: 1997. p. 29-49.
- Kessler RC, Price RH, Wortman CB. Social factors in psychopathology: Stress, social support, and coping processes. *Annual Review of Psychology* 1985;36:531–572.
- Kochanska G, Aksan N, Penney SJ, Boldt LJ. Parental personality as an inner resource that moderates the impact of ecological adversity on parenting. *Journal of Personality and Social Psychology* 2007;92:136–150. [PubMed: 17201548]
- Kim S, Brody G. Longitudinal pathways to psychological adjustment among black youth living in single-parent households. *Journal of Family Psychology* 2005;19:305–31. [PubMed: 15982108]
- Kishton JM, Widaman KF. Unidimensional versus domain representative parceling of questionnaire items: An empirical example. *Educational and Psychological Measurement* 1994;54:757–765.
- Liossis PL, Shochet IM, Milliar PM, Biggs H. The Promoting Adult Resilience (PAR) program: The effectiveness of the second, shorter pilot of a workplace prevention program. *Behaviour Change* 2009;26:97–112.
- Luthar, SS. Resilience in development: A synthesis of research across five decades. In: Cicchetti, D.; Cohen, D., editors. *Developmental psychopathology, Vol 3: Risk, disorder, and adaptation*. 2nd ed.. Wiley; Hoboken, NJ: 2006. p. 739-795.
- Masten, AS.; Wright, M. Resilience over the lifespan: Developmental perspectives on resistance, recovery, and transformation. In: Reich, JW.; Zautra, AJ.; Hall, JS., editors. *Handbook of adult resilience*. Guilford Press; New York: 2009. p. 213-237.
- McLoyd VC. Socioeconomic disadvantage and child development. *American Psychologist* 1998;53:185–204. [PubMed: 9491747]
- Mistry RS, Vandewater EA, Huston AC, McLoyd VC. Economic well-being and children's social adjustment: The role of family process in an ethnically diverse low-income sample. *Child Development* 2002;73:935–951. [PubMed: 12038561]
- Murry VM, Bynum MS, Brody GH, Willert A, Stephens D. African American single mothers and children in context: A review of studies on risk and resilience. *Clinical Child and Family Psychology Review* 2001;4:133–155. [PubMed: 11771793]
- Muthén, LK.; Muthén, BO. *Mplus user's guide*. 5th ed.. Muthén & Muthén; Los Angeles, CA: 2007.
- Nes LS, Segerstrom SC. Dispositional optimism and coping: A meta-analytic review. *Personality and Social Psychology Review* 2006;10:235–251. [PubMed: 16859439]
- Nioku MGC, Jason LA, Torres-Harding SR. The relationships among coping styles and fatigue in an ethnically diverse sample. *Ethnicity and Health* 2005;10:263–278. [PubMed: 16191727]
- Patterson JM. Integrating family resilience and family stress theory. *Journal of Marriage and Family* 2002;64:349–360.
- Pears OK, Capelin D. Intergenerational transmission of abuse: A two-generational prospective study of an at-risk sample. *Child Abuse & Neglect* 2001;25:1439–1461. [PubMed: 11766010]
- Peterson C. The future of optimism. *American Psychologist* 2000;55:44–55. [PubMed: 11392864]

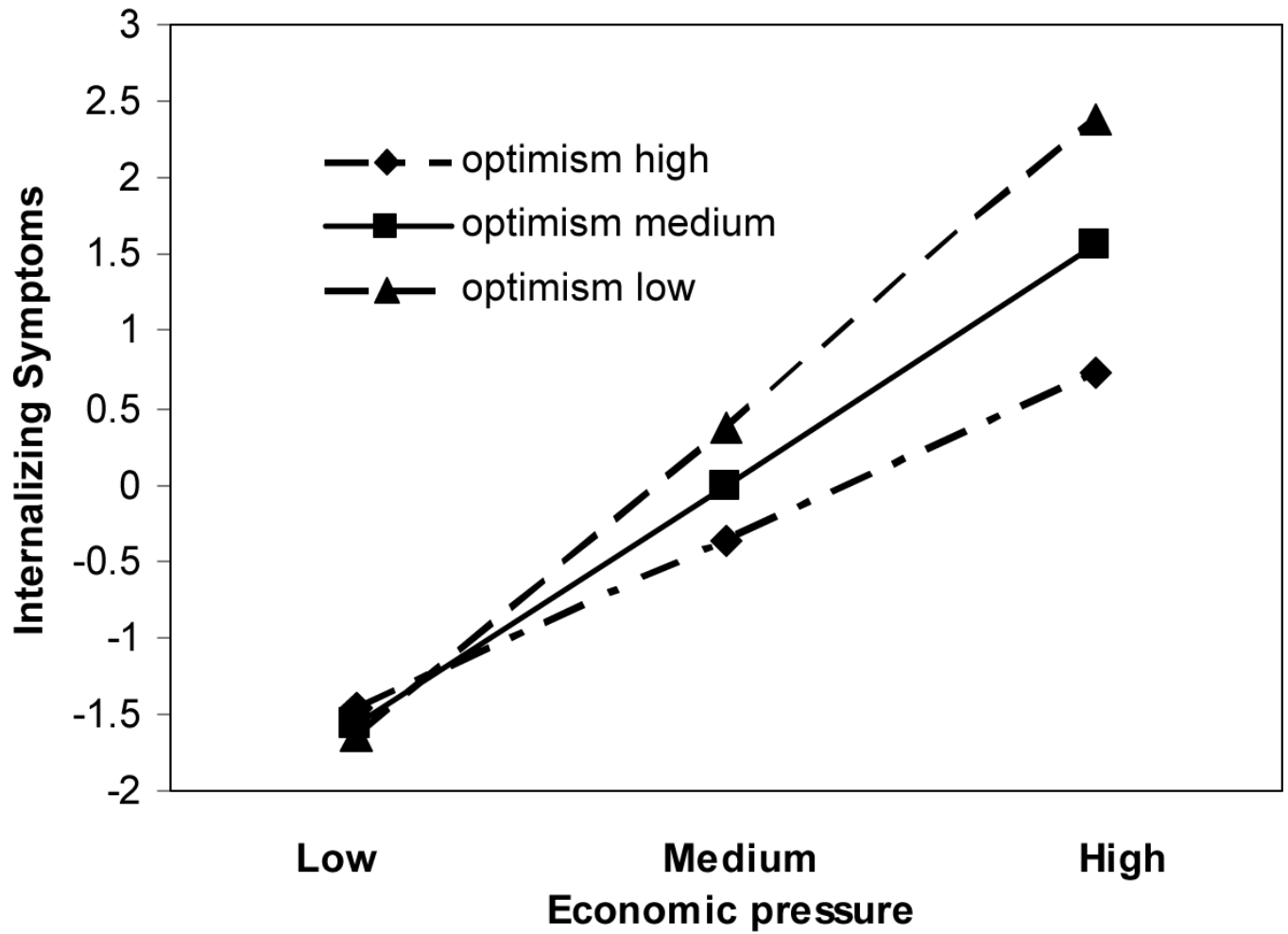
- Repetti RL, Taylor SE, Seeman TE. Risky families: Family social environments and the mental and physical health of offspring. *Psychological Bulletin* 2002;128:330–366. [PubMed: 11931522]
- Ricciuti HN. Single-parenthood, achievement, and problem behavior in White, Black, and Hispanic children. *Journal of Educational Research* 2004;97:196–206.
- Scaramella LV, Conger RD, Simons RL. Parental protective influences and gender-specific increases in adolescent internalizing and externalizing problems. *Journal of Research on Adolescence* 1999;9:111–141.
- Scheier MF, Carver CS. Optimism, coping, and health: Assessment and implications of generalized outcome expectancies. *Health Psychology* 1985;4:219–247. [PubMed: 4029106]
- Schoon I, Sacker A, Bartley M. Socio-economic adversity & psychosocial adjustment: A developmental-contextual perspective. *Social Science & Medicine* 2003;57:1001–1015. [PubMed: 12878101]
- Simons RL, Beaman J, Conger RD, Chao W. Stress, support, and antisocial behavior traits as determinants of emotional well-being and parenting practices among single mothers. *Journal of Marriage & the Family* 1993;55:385–398.
- Taylor RD, Rodriguez AU, Seaton EK, Dominguez A. Association of financial resources with parenting and adolescent adjustment in African American families. *Journal of Adolescent Research* 2004;19:267–283.
- Taylor SE, Stanton AL. Coping resources, coping processes, and mental health. *Annual Review of Clinical Psychology* 2007;3:377–401.
- U.S. Census Bureau. Current Population Survey: America's Families and Living Arrangements. 2006. [www.census.gov/population/www/socdemo/hh-fam/cps2006.html](http://www.census.gov/population/www/socdemo/hh-fam/cps2006.html)
- Wildman, KF.; Reise, SP. Exploring the measurement invariance of psychological instruments: Applications in the substance use domain. In: Bryant, KJ.; Windle, M.; West, SG., editors. *The science of prevention: Methodological advances from alcohol and substance abuse research*. APA; Washington, DC: 1997. p. 281-324.
- Wrosch C, Scheier MF. Personality and quality of life: The importance of optimism and goal adjustment. *Quality of Life Research* 2003;12:59–72. [PubMed: 12803312]



**Figure 1.**  
Conceptual Model



**Figure 2.** Statistical model results with interaction effect (standardized) and factor loadings  
 Note:  $\chi^2(287, N=394) = 410, p < .05$ ; CFI = .955; TLI = .947; RMSEA = .032 Only significant paths are shown:  $p^{**} < .01$   $p^* < .05$   $p^\diamond < .10$  (two-tailed test) Factor loadings are all significant ( $p < .01$ ) Dashed paths are significant at the trend level.



**Figure 3.** Interaction between economic pressure and maternal optimism, predicting mother's internalizing symptoms.



Table 1

Correlations among construct variables

	1	2	3	4	5	6	7	8	9	10	11
1. Mother's Childhood Adversity	1.00										
2. W1 Maternal Optimism	-.12*	1.00									
3. W1 Economic Pressure	.27**	-.27**	1.00								
4. W1 School Competence	-.09	.04	-.02	1.00							
5. W1 Mo. Internalizing Symptoms	.20**	-.36**	.22**	.03	1.00						
6. W2 Effective Child Management	-.22**	.36**	-.15**	.14**	-.31**	1.00					
7. W2 Warm Parenting	-.18**	.04	-.05	.19**	-.04	.23**	1.00				
8. W3 School Competence	-.14**	.12*	.07	.24**	-.11	.35**	.28**	1.00			
9. Child Gender	-.14**	.02	-.04	.05	.03	.04	-.13*	.14**	1.00		
10. Mothers' Age	-.07	.18**	-.02	.12*	-.07	.06	.10	.07	.08	1.00	
11. Child Age	-.06	.03	-.02	.03	-.02	-.13*	-.08	-.05	-.01	.12*	1.00

\* p < .05

\*\* p < .01 (two-tailed test)