THE LINGERING IMPACT OF RESIDENTIAL MOBILITY AMONG RURAL AFRICAN AMERICAN FAMILIES WITH YOUNG CHILDREN

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ABSTRACT

AMANDA CLINCY: The Lingering Impact of Residential Mobility among Rural African American Families with Young Children

The lingering impact of residential mobility on parenting behavior was explored in a sample of 433 rural, African-American families with young children. Two theoretical frameworks were applied- the family stress model and social capital theory. It was hypothesized that residential mobility would predict negative and engaged parenting directly and indirectly through neighborhood cohesion, economic strain, and psychological distress. Data were obtained through parent self-report measures and through observations of parent-child interactions. Though residential mobility did not predict the parenting dimensions, it was marginally related to higher psychological distress through higher levels of economic strain. Neighborhood trust and cohesion were negatively associated with psychological distress. The current study emphasizes multiple and complex ways in which residential mobility can impact family functioning and, potentially, child well-being. Future directions for mobility research among African-American rural families are discussed, as well as, strategies for promoting cohesive neighborhood-level relationships for families in rural settings.

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The Lingering Impact of Residential Mobility among Rural African American Families with Young Children

Though mobility rates have somewhat decreased in the past few years, 33.2 million U.S. residents relocated in 2008 (U.S. Census Bureau, 2009). Of all the Americans moving, African Americans were the most mobile racial group with 16% changing residence in 2008 (U.S. Census Bureau, 2008). Residential movement whether for new job or due to foreclosure requires adjustments that oftentimes may not have discrete ending points, potentially leaving long-lasting impacts (Wheaton, 1996). Even a single move can bring about changes in economic, physical, and social arenas in ones life. More specifically, decreases in social support networks, financial resources, and parental well-being, and changes in neighborhood environments and routines have all been documented (see Adam, 2004).

While residential mobility seems to affect individuals falling within any income range, resource-limited families often experience unpredictable moves accompanied by increased levels of insecurity (Fitchen, 1994). What is currently known about these potentially detrimental effects is based on urban populations or nationally representative samples with little attention given specifically to rural African American families despite research that indicates that rural families are fairly mobile (Stovel & Bolan, 2004). The effects of residential mobility among this population may be heightened given the high rates of poverty that is often chronic and deep (Economic Research Service, 2003). Residential movement within this context may impact family well-being possibly to a

greater extent than in families who are traditionally the focus of residential mobility research, making this a crucial population to study.

Additionally, past research examining residential mobility has focused on older adolescents due to concerns regarding school related outcomes (Astone & McLanahan, 1994; Adams & Chase-Lansdale, 2002; Hango, 2006; Tucker, Marx, & Long, 1998). However, research suggests that for young children in poverty, residential mobility may have a negative impact on child development. Specifically, among preschool age children, residential mobility has been associated with lower cognitive functioning and poorer sibling relationships (Stoneman, Brody, Churchill, & Winn, 1999). Despite early childhood being an important time during child development, there is little information on potential pathways by which residential mobility may compromise parental functioning in families with young children.

To fill this gap in the literature, the purpose of the current project is to examine the extended impact of residential movement on parenting behavior among rural, low-income, African American families with young children. Additionally, the lingering impact of these potential changes on parenting behavior through their effects on neighborhood cohesion and trust, economic strain, and psychological distress is also of primary interest. To explore these aims, two theoretical frameworks are applied- the family stress model and social capital theory.

Theoretical Frameworks

Family Stress Models

Poor families often experience a myriad of stressors arising from financial strain, living in dangerous neighborhoods, negative life events, and high rates of residential mobility. While all these events can place pressure and strain on daily living, residential mobility may be extremely emotionally and financially taxing for the almost a quarter of African American families experiencing persistent poverty and the over 80% of rural minority children living in high poverty areas (U.S. Census Bureau, 2006; Lichter & Johnson, 2007). Rural African American families are already at risk for experiencing racial discrimination, economic oppression, food insecurity and limited access to resources (Tickamyer & Duncan, 1990). The relatively high rate of residential mobility, an often stressful and expensive event, may make this group more vulnerable to the negative effects that have been widely documented (see Adam, 2004). However, the majority of the studies examining residential mobility have not focused on impoverished, rural, African American samples that are already financially and emotionally taxed. Nor have they explored residential mobility within the family stress framework proposed by Conger and colleagues (1992, 1994), though residential mobility has been shown to have economic and psychological consequences similar to what the family stress model posits.

Family stress models hypothesize several mediators through which poverty exerts an influence on child well-being and development, often highlighting parenting behaviors. Early work in this area includes Elder and colleagues' (Elder, Nguyen, & Caspi, 1985) studies on families during the Great Depression and Conger and colleagues (1992; 1994) research on Iowa farm communities experiencing economic loss in the

1980's. The key tenet of the family stress model, as shown in Figure 1, is that economic hardships such as low-income, high debt to assets ratio, and negative financial events (e.g., increasing economic demands) increases family economic pressure or economic strain. Economic strain encompasses a family's unmet material needs involving necessities, difficulties paying bills, and cutting backing on expenditures due to limited financial resources (Conger et al., 2002; Conger & Donnellan, 2007; Barnett, 2008). Importantly in these models, it is not income or negative financial events by themselves that affect children; it is the subjective appraisal of economic strain that is of key importance (McLoyd, 1990; Mistry, Biesanz, Taylor, Burchinal, & Cox, 2004).

Additionally, this model predicts that when economic strain is high, it will have an impact on parental emotional and psychological distress. Emotional and psychological distress have been operationalized in many ways, such as depression (Brown, Ahmed, Gary, Milburn, 1995; Magdol, 2002), anxiety, and anger (Gutman, McLoyd, Tokoyawa, 2005). Ultimately, emotional and psychological distress can exert an influence on child emotional, behavioral, cognitive, and physical well-being through marital conflict and less nurturing and engaged parenting behaviors (Conger, Rueter, & Conger, 2000; Conger & Donnellan, 2007; Barnett, 2008; McLoyd, 1998). The negative effects of psychological distress may be more pronounced for poor families when it occurs in the context of other risk factors that these families experience (McLoyd, 1998).

Financial resources fluctuate at any given time depending on a variety of circumstances such as job loss (Conger, Ge, Elder, Lorenz, & Simons, 1994) or residential mobility, potentially impacting subjective appraisal of economic strain. Berger, Powell, and Cook (1988) sought to capture the influence of this fluctuation by

exploring mobility among two-parent middle-class families who had moved within the past year. Less than half of these mobile individuals indicated that their financial condition improved after the move. Those whose financial condition declined after the move reported experiencing more stress. While the study did explore subjective appraisals of financial condition, the researchers did not look at economic strain specifically. However, if these findings emerge among middle-class, two-parent families, then the stress may possibly be heightened in low-income families, with diverse structures, who may be moving due to foreclosure or other negative financial events that are less common among the middle-class. Moreover, even when impoverished families, who are struggling financially, move for positive reasons the added financial burden of moving might still cause heightened levels of economic strain.

In turn, the heightened economic strain may increase psychological distress as proposed in the family stress framework (Conger et al., 2002). Few studies have sought to empirically link residential mobility to psychological distress through economic strain. However, the relationship between residential mobility and overall low levels of psychological well-being has been established. High rates of residential mobility have been shown to be associated with increased levels of depression and overall psychological well-being (Brown, Ahmed, Gary, Milburn, 1995; Magdol, 2002). Specifically, Brown and colleagues (1995) examined correlates of major depression among rural African Americans and found that stressful life events, such as residential mobility, were significantly associated with major depression while the sociocultural and family background factors examined were not associated with depression. Magdol (2002) provides additional support for the link between psychological health and mobility

in a study using data from the National Survey of Families and Households. In a sample where over half of the participants had moved within the past five years, Magdol (2002) demonstrated that mobility was significantly related to depression above and beyond social class, martial status, gender, and employment.

In a family stress framework, once psychological well-being is compromised other aspects of family life are also affected. The literature has consistently established a link between psychological distress, parenting behavior, and child outcomes (Conger, et al., 1994; Conger et al., 1995; McLoyd, 1998; Barnett, 2008). For example, Linver, Brooks-Gunn, and Kohen (2002) found that income was linked to less optimal parenting practices (e.g. less warmth, more control, and more punitive behaviors) through increases in maternal emotional distress. Additionally, parental stress is negatively related to parental investment and positive parenting which, in turn, predicts child cognitive skills and social-emotional competence (Gershoff, Aber, Raver, & Lennon, 2006). Though neither of the aforementioned studies examined residential mobility specifically, residential mobility can trigger stress and distress which as suggested above may lead to less positive parenting behaviors. Using a family stress framework, residential mobility can be viewed as a potentially financially taxing event that affects parenting through increasing economic strain and psychological distress.

Social Capital

Family stress models only capture one potential pathway by which residential mobility may impact psychological well-being and parenting. Social capital theory provides a useful framework for examining an alternate or co-occurring route. Residential mobility not only potentially taxes families financially, but there may be losses in social

networks. Social linkages provide many benefits, among them family well-being, social control, and economic opportunity (Portes, 1998). These benefits are referred to as social capital. Coleman (1988) specifically defines social capital as "the social networks and the relationships between adults and children that are of value for the child's growing up" (p. 36). The key tenet of this definition of social capital is that socially structured relationships between individuals, such as parents and neighbors, are critical for increasing the skills and knowledge of children. As a whole, these attributes that children gain can be referred to as human capital. In this way, social capital is not tangible but makes possible certain outcomes that would not be possible in its absence.

Putnam (1995) also highlights networks, norms, and trust as being key features of social capital. These norms come about to prevent negative effects and promote positive, beneficial effects among both children and parents (Coleman, 1988; Dorsey & Forehand, 2003). To illustrate the benefit of such networks and norms, Coleman (1988) discusses a mother who, after leaving Detroit to live in Jerusalem with her family, felt comfortable with her eight year old son taking his six year old sibling to the park by himself. Unlike when she lived in Detroit, there did not exist a normative structure in which adults in the area monitored unaccompanied children.

Though in this example, Coleman (1988) did not focus on the ways mobility can reduce social capital, he provides another illustration in which residential mobility affects the social capital of the family and broader community. Coleman (1988) highlights the story a father who moves out of the neighborhood for a better job. While this may provide some benefits to the family financially, it may create a loss in the community due to the severance of the social network. Coleman goes on to discuss the way in which

mobility reduces the family's social capital through what he terms a lack of "intergenerational closure". Intergenerational closure comes about when a network has reached a consensus on sanctions to guide and monitor behavior (e.g. watching an unmonitored child) in the community. At least not immediately, parents of mobile families who continually enter and leave new communities do not have the benefit of experiencing intergenerational closure like non-mobile families.

Magdol and Bessel (2003) conducted one of several studies that actually empirically test whether mobility had an impact on mobile families' social capital. The authors examined whether overall mobility and mobility distance were associated with social capital resources, specifically, social exchanges (i.e. advice, emotional support). They found that long distance moves, while not affecting financial support, did have a negative affect on companionship and tangible favors that mobile parents received. Deficiencies in social ties have been associated with a range of detrimental outcomes (Coleman, 19988; Hango, 2006), including parents of mobile children communicating less with the parents of their children's friends (Pettit & McLanahan, 2003). Magdol and Beessel (2003) explored social capital from all networks simultaneously (i.e. friends, neighbors, parents, other relatives). While social networks include the broader community, few studies have examined the potential loss and formation of neighborhood-specific social relationships in the context of family residential mobility.

Social capital at the neighborhood level has been conceptualized in various ways. Most notably, Sampson, Raudenbush, and Earls (1997) integrate social capital theory into their concept of collective efficacy, which they define as the "linkages of mutual trust and the willingness to intervene for the common good" (p. 919). Collective efficacy is

thought to contain elements of informal social control (i.e., neighbors will watch over your children), and cohesion and trust (i.e., parents in the neighborhood share the same values).

Coleman (1988) suggested that these elements of social capital allow parents to share the tasks of supervising and parenting youth. Though the literature has been mixed as to whether neighborhood relationships are always beneficial for parents and children, there is substantial evidence to support their positive effects. In a detailed ethnography, Furstenberg (1993) found that social capital within the neighborhood provided parents a source of parenting advice and informed them about child misbehavior. In addition, Dorsey and Forehand's (2002) findings suggest that social capital at the neighborhood level is related to child psychosocial adjustment through parenting behaviors. Specifically, increased levels of social capital were beneficial to child psychosocial adjustment through its association with higher levels of effective parenting.

Similarly, Brody and colleagues (2001) examined another aspect of social capital within the neighborhood context, collective socialization. Collective socialization can be thought of as trust and cohesion within a neighborhood manifested through parental monitoring practices of children in the neighborhood for their protection. This study revealed that rural African American children living in more disadvantage neighborhoods who reported more collective socialization also reported less affiliation with deviant peers. In addition, nurturant/involved parenting and collective socialization were both inversely associated with affiliation with deviant peers.

While this evidence supports a direct effect of social capital on parenting and child behavior, the feelings of safety and comfort in the community that social capital

promotes also have the potential to impact parenting indirectly through reduced amounts of psychological distress. Parents may not be as worried about the safety of their children in a community where they trust other parents to look after their children. In addition, they also know that they can go to their neighbors if they need assistance (e.g. borrow money). If these same parents are less distressed, they may display more optimal parenting behavior.

Gutman, McLoyd, and Tokoyawa (2005) provide initial support for this hypothesis in a study in which they examined a variety of potentially stressful neighborhood attributes which included low social control, and linked them to parenting both directly and indirectly. As discussed in earlier sections, social control, along with cohesion and trust, are aspects of social capital at the neighborhood level. In a sample of urban families, Gutman and colleagues (2005) found that overall neighborhood stress had an effect on parent-child relationships through maternal distress. However, there is still a need for this type of model to be tested in the context of residential mobility, where neighborhood relations are fluctuating. Moreover, there is still little information about these relationships within the rural context

African American Rural Families

The current study explores residential mobility from a family stress framework and applies the tenants of social capital theory simultaneously. Due to the dearth of information on residential mobility and family processes within rural, low-income African American families, this group will be examined in the present study. The majority of research exploring the detrimental effects of residential mobility in African American families has focused on the urban context, despite evidence to suggest that

rural families of all racial groups experience the same stressors as urban families, such as low wages, unemployment, and low educational attainment (Brody & Flor, 1997; Kim, Brody, & Murry, 2003). These risks pose the same threat to family functioning and child development across both contexts (Bierman & The Conduct Problems Prevention Research Group, 1997).

Taking this into consideration, the sample in the present study is drawn from the Southeastern Black Belt which qualifies as persistent poverty counties according to the U.S. Department of Agriculture's Economic Research Service (ERS) (2005). These counties are characterized by persistent poverty with 20% or more of the residents living below the poverty level, and the numbers have remained fairly stable since 1960 (ERS, 2005). For African Americans in southern regions such as the Black Belt, poverty is entrenched in a system of political and economic stratification. Families are often caught in a historical cycle of poverty which is the result of deeply rooted dependency, racism, and lack of land (Tickamyer & Duncan, 1990).

In addition to facing these obstacles, rural African Americans must also deal with the same stressors as all rural families. These communities are plagued with low educational attainment, high infant mortality, low quality housing and heath care, and few formal support services (Brody, Stoneman, Flor, McCrary, Hastings, & Conyers 1994; Cochran, Skillman, Rathge, Moore, Johnston, & Lochner, 2002; Lichter & Johnson, 2007). Underdeveloped infrastructures, scarcity of jobs, especially jobs offering upward mobility, are also qualities that characterize many rural communities (Tickamyer & Duncan, 1990). The occupations that are available are usually low wage and physically exerting (Brody & Flor, 1998). Lichter and Johnson (2007) suggest that economic and

cultural isolation may give rise to maladaptive behaviors that continue the cycle of poverty, such as welfare dependency and single parenthood.

Given that rural African American families bear the burden of poverty (Tickamyer & Duncan, 1990), residential mobility in this potentially stressful context may have a heightened effect on these families. The combination of working low wage jobs, few formal support services, high rates of mobility has the potential to increase levels of economic strain and psychological distress. This in turn may impact parenting and child development.

While these risk factors do exist, several protective factors also characterize many rural communities, namely the densely interconnected social groups, often made up of extended family members (Cochran et al, 2002; St. Lawrence & Ndiaye, 1997). This is a key element to consider when examining the impact that residential mobility may have on neighborhood social capital. Families moving out of communities in which extended kin networks are the only source of financial and emotional support may suffer severe consequences as they transition into a new community. Moreover, it cannot be assumed that all rural communities are homogenous (St. Lawrence & Ndiaye, 1997), especially when examining social support networks. For example, differences in the amount of geographic isolation may vary and prevent the formation of these relationships and cohesive social networks. Families who move from an interconnected community to a very isolated area may be more economically strained as well as socially deprived given the lack of emotional and financial support systems. The increase in economic strain paired with the loss of the support networks may have serious consequences for parental well-being and thus child development.

The Present Study

The purpose of current study is to examine the link between residential mobility and parenting in families with young children. Using data from the Family Life Project (FLP), this study will test the effects of residential mobility on various parental outcomes as displayed in Figure 2. It is predicted that residential mobility will have a direct effect on parenting behavior and an indirect effect through psychological distress. Additionally, residential mobility will be indirectly related to psychological distress through economic strain and neighborhood cohesion and trust. The specific hypotheses are as follows:

1. Residential mobility (number of child moves from 6 to 24 months) will have a positive and direct association with parental psychological distress.
2. Residential mobility will have an indirect association with psychological distress through higher levels of economic strain and lower levels of neighborhood cohesion and trust.
3. Parental psychological distress will have a negative effect on engaged parenting and a positive effect on negative parenting (at 35 months of age).
4. Psychological distress will mediate the relationship between residential mobility, economic strain, neighborhood cohesion and trust, and engaged and negative parenting behaviors (at 35 months of age).

Method

Sample

The sample for the current study was drawn from the Family Life Project. The FLP is a longitudinal, multi-method, multi-respondent rural study which explores the

ways in which child, family, and contextual factors shape child development overtime. The FLP used a developmental epidemiological sampling design to recruit a representative sample of families with oversampling of low-income families in Pennsylvania and North Carolina and African American families in North Carolina. Families were recruited in person at hospitals and over the phone using birth records. Eligibility criteria included residency in the target counties, English as the primary language spoken in the home, and plans to stay in the area for the next 3 years. A total of 1,292 families enrolled in the study by completing the first home visit when the infant was 2 months of age. Only African Americans who resided in North Carolina and who were biological mothers of the target child were included in the present study (N= 433). Seventy percent of the biological mothers were single and 30% married. On average the primary caregivers monthly income was about $1600 (*SD*= 1075). There was variability in education within the sample. Fifty-four percent had a high school degree or less. Thirty-five percent had some college and the final 7% had a college degree.

Procedure

The majority of the data for the present analyses were collected by two trained home visitors during home visits that took place when children were on average 24 months of age and another visit when the children were around 35 months of age. The primary caregiver was filmed in a semi-structured 10-min dyadic puzzle activity. A team of coders scored the DVDs for caregiver behavior. All coders were blind to other information about the families. Two criterion coders trained all other coders until excellent reliability (intraclass correlation > .80 for all composites) was maintained for

each coder on each scale. Once reliability was met, noncriterion coders coded in pairs, while continuing to code at least 20% of cases with a criterion coder.

Measures

At the 24 month time point, parents completed all of the following measures. Additionally, parenting data at 35 months was also collected.

Demographic information was collected on child gender, parental race, parental education level, parental marital status, average monthly income, and the number of people living in the home.

Residential mobility was assessed by asking the parent to complete the missing information in the following statement: *The child has moved __ times in the past year.* The analysis variable was created by summing the number of times the target child had moved in the past years at the 6, 15, 24 month time points.

Economic strain was measured using the Economic Strain Questionnaire, a 6-item index (Conger & Elder, 1994). Responses are given on a 5-point Likert Scale. The amount of economic strain experienced is indicated by averaging the score on three separate types of items: difficulty paying bills, money at the end of the month, and enough money in the household. An example of the first type of item is difficulty paying bills and responses ranged from *great difficulty* to *no difficulty at all.* The second item assesses money at the end of the month and responses ranged from *not enough to make ends meet* to *more than enough money at the end of the month.* The last 4 items assess the degree to which there is enough money in the household for a home, clothing, food, and medical care. Responses range from *strongly disagree* to *strongly agree.* The measure has demonstrated good reliability and predictive validity (Conger et al., 2002). However, a

confirmatory factor analysis was conducted to assure that all items measured one factor in the current sample. Analysis revealed that all six items loaded onto one factor with an alpha coefficient of .81.

Neighbor trust and cohesion were measured by the Neighborhood Questionnaire (Brody et al., 2001), a 14-item collective socialization measure representing parental monitoring processes extended to the neighborhood (Patterson, DeBaryshe, & Ramsey, 1989) and connotes a level of trust and cohesion among neighbors that facilitates consensus about acceptable conduct in the community (Bursik & Grasmick, 1993). Respondents rate whether or not statements are *true* or *false*. Sample items include "You can count on adults in your neighborhood to watch out that children are safe and don't get in trouble." Exploratory factor analysis revealed all items loading onto one factor. The alpha coefficient was .82.

Maternal psychological distress was measured using the Brief Symptom Inventory-18 (BSI-18) (Derogatis, 2000). BSI-18 is an 18-item self-report symptom inventory designed to measure the psychological symptom patterns of normative and psychiatric respondents. Respondents rate on a 5-point scale ranging from 0 = not at all to 4 = extremely. The measure is made up of three subscales assessing somatization, depressive symptoms, and anxiety. Sample items include "faintness or dizziness" and "temper outburst that you cant control". The BSI has been used in a number of studies (Kotchick, Doresy, & Heller, 2005). A confirmatory factor analysis was run on each set of items corresponding with each of the three subscales. All six items measuring somatization loaded on one factor with an alpha coefficient of .81. The six items measuring anxiety also loaded on one factor with a resulting alpha coefficient of .81.

Lastly, the six items measuring depressive symptoms all loaded onto one factor with an alpha coefficient of .84

Parental behaviors were assessed by a system in which mothers were coded during the caregiver-child interaction, using a 5-point Likert scale, on the following scales all revised from scales developed in the National Institute of Child Health and Human Development Study of Early Child Care (Cox, Paley, Burchinal, & Payne, 1999; National Institute of Child Health and Human Development Early Child Care Research Network, 1999): sensitivity/responsiveness, intrusiveness, detachment/disengagement, positive regard for the child, negative regard for the child, animation, and stimulation of development. Once these score were obtained, two composites were formed to indicate positive engagement (engaged parenting) and negative intrusiveness (negative parenting). Parental positive engagement was created by summing scale scores for positive regard, stimulation of development, animation, and detachment/disengagement (reverse-scored). Parental negative intrusiveness was created by summing scale scores for intrusiveness, negative regard, and sensitivity (reverse-scored). As these composites have been used in other previous studies using the Family Life Project sample, only the alpha coefficients were calculated for each composite from the 35 month time point data. The alpha coefficient for negative parenting was .81 and engaged parenting was .74.

Negative life events were assessed by the Life Events Scale. This scale assesses the presence of positive and negative events that have the potential to affect family functioning. The scale measures the presence of events that have occurred within the past six months Only the total negative events, sum of the number of events rated as '"bad", was used for the current study. Participants indicated whether the event was *bad*, good, or

did not happen in the past six months. Sample items include “Getting married”, “Foreclosure on mortgage or loan”, “Serious illness/injury close friend or family member”.

Results

Data Analysis and Modeling Testing

The proposed model (See Figure 2) was assessed using a combination of both path analysis and structural equation modeling (SEM) with latent variables. The model was estimated in MPLUS 5 (Muthén & Muthén, 2006) with Robust Maximum Likelihood (MLR) using all available data, thereby allowing for the ability to maximize all the sample size for the study. Furthermore, MLR provides standard error estimates that are valid even when variables are not normally distributed (Schumacker & Lomax, 2004), which is the case for the parental psychological distress indicators and economic strain variables. Demographic characteristics, negative life events, and parenting at 24 months were used as controls in the current analyses.

Given that each of the goodness-of-fit indices operates under different assumptions, multiple indices are included to evaluate model fit. These indices are the Comparative fit index (CFI), Tucker-Lewis Index (TFI), and root mean square error of approximation (RMSEA). A CFI and TFI over .9 is considered acceptable and a RMSEA of less that .5 is considered a good fit. Additionally, the χ^2/df ratio is reported in the current study. The ratio is reported rather than just the χ^2 given that χ^2 is sensitive to sample size and model complexity. A ratio between 1 and 3 is considered a good model fit.

Descriptive Analyses

Bi-variate correlations between all variables included in the study were examined. Along with the correlations, means and standard deviations are shown in Table 1. Residential mobility was only moderately and positively related to economic strain, negatively associated with engaged parenting at 24 months. Residential mobility was also related to the following demographic variables: marital status and education. Single mothers and less educated mothers were more likely to move. The intercorrelations indicated partial support for the hypothesis that residential mobility is linked to economic hardship and engaged parenting behaviors. Residential mobility was not significantly correlated with the psychological distress indicators, somatization, anxiety and depressive symptoms. However, economic strain was moderately related to all three of the indicators. This may suggest that economic strain is a potential mediator of the effect of mobility on distress. Furthermore, some of the distress indicators were significantly related to the parenting measures, albeit, not strongly, and to neighborhood cohesion and trust. The significant correlations between many of the measured variables and several demographic variables justified the inclusion of these variables as exogenous variables in the analyses.

Evaluation of the Hybrid Structural Model

Parental psychological distress was the only latent variable created for the current model. The first observed variable for the latent factor was set to 1.0 to scale the variance for this factor. As displayed in Figure 3, all the loadings were significant. All other variables used in the analyses were observed, creating a hybrid structural equation model. Paths were specified to reflect the hypotheses of the study.

Additionally, several controls were entered into the model and the standardized estimates and significance levels corresponding to those controls are reported in Table 2. All controls were entered at every step except parenting at 24 months and child gender were only entered to estimate the direct effect of residential mobility on parenting and the effects of psychological distress on parenting. Several controls were significantly related to the constructs of interest. However, negative life events did not relate to any of the constructs of interest. Only parental education approached a significant negative association with psychological distress and was significantly and positively associated with negative parenting. Furthermore, only martial status was associated with engaged parenting. This indicates that married mothers were more likely to display engaged parenting behavior than single mothers.

Figure 3 represents the results of the hybrid SEM analysis for the proposed model with controls, including standardized path coefficients. Only significant path coefficients and loadings are displayed in the model. Overall model fit was good, $\chi^2/df = 2.88$. Additional indices are reported in Figure 3 and also indicate that the proposed model was a good fit for the data.

Hypotheses 1 and 2 predicted that residential mobility would be associated with higher levels of psychological distress both directly and indirectly through higher levels of economic strain and lower levels of neighborhood cohesion and trust. Only partial support for these hypotheses was found. Residential mobility was significantly associated with higher levels of economic strain but not with lower levels of neighborhood cohesion and trust. Residential mobility was also not significantly related to psychological distress. However, both neighborhood cohesion and trust and economic strain were associated

with distress. As hypothesized, higher levels of neighborhood cohesion and trust were associated with lower psychological distress while higher levels of economic strain related to higher levels of psychological distress. The indirect effect of residential mobility on psychological distress through economic strain was tested and approached significance, $\beta = .03$, $p<.07$. Though the estimate is not large this suggested mediation, indicating that higher rates of residential mobility might be related to greater psychological distress through increases in economic strain.

Given that residential mobility was not significantly associated with neighborhood cohesion and trust, as predicted, indirect effects were not estimated for that meditational pathway. Additionally, neither psychological distress nor residential mobility related to engaged and negative parenting, thus indirect effects were also not tested for those pathways. These indirect effects, if significant, would have provided support for the last hypothesis linking residential mobility, economic strain, and neighborhood quality to parenting behaviors through psychological distress.

Discussion

The current study focused on the implications of residential mobility in a highly understudied population, rural, African American families with young children. Residential mobility was studied in the context of the family stress model and social capital theory simultaneously. The longitudinal nature of the data allowed for the exploration of the lingering impact of residential mobility on parenting behaviors. It was hypothesized that higher rates of residential mobility would predict lower levels of engaged parenting and higher levels of negative parenting through parental psychological distress in three ways: (1) through a direct effect on psychological distress; (2) through its

positive relation with economic strain, which, in turn, would be associated with higher levels of psychological distress; (3) through its negative relation to neighborhood cohesion and trust, which, in turn, would also be linked to higher levels of psychological distress. The findings may provide some insight into the multiple and complex ways in which residential mobility can impact family functioning and, potentially, child well-being.

While the overall model was a good fit for the data, residential mobility did not predict engaged and negative parenting behaviors directly, nor did residential mobility predict parenting indirectly through the various meditational pathways tested. However, several interesting and very important findings did emerge. Residential mobility was marginally associated with higher levels of psychological distress through its effect on economic strain. This suggests that it is not residential mobility that is influencing parents' experiences of psychological distress; it is the economic strain that can accompany higher rates of mobility that is compromising parental mental health. In the literature, researchers have proposed that residential mobility impacts family functioning through higher levels of economic strain, but few, if any, studies have tested this empirically. It must be noted however, that the findings of the current study do compliment early work in this area that explored the financial and psychological consequences of mobility. In a sample of middle-class families, Berger, Powell, and Cook (1988) demonstrated that higher levels of mobility were associated with higher levels of stress for movers who were financially taxed after their move. While among the present study's low-income, rural sample a different link was tested, both studies

emphasize the necessity for future research to explore the implications of this relationship between mobility, economic well-being, and psychological health.

This meditational relationship also provides preliminary evidence that supports the study of residential mobility within the family stress model, as applied to families in rural contexts. The family stress model posits that negative financial events impact family functioning (Conger et al., 2002). The results of the current study suggest that residential mobility can be thought of as such an event. According to Conger and colleagues (2002), negative financial events that cause increases in financial demands can, in turn, increase economic strain and impact family functioning, such as increasing martial conflict and decreasing parental warmth. Oftentimes this effect occurs through parents' higher levels of emotional or psychological distress (i.e. depression, anxiety) (Conger & Donnellan, 2007). For rural, impoverished African-American families, the added financial and psychological burden in addition to obstacles such as, low educational attainment, few formal support services, and discrimination (Brody, Stoneman, Flor, McCrary, Hastings, & Conyers 1994 ; Lichter & Johnson, 2007; Tickamyer & Duncan, 1990), may make the impact of psychological distress on family functioning more pronounced. Although a link between residential mobility and parenting behaviors was not supported statistically in the current study, the potential association between mobility and parenting behavior is worthy of additional research.

Another important implication of the findings relates to neighborhood cohesion and trust. Even though residential mobility was not linked to neighborhood cohesion and trust as hypothesized, neighborhood cohesion and trust were linked to parental psychological distress. This finding suggests that parents who have access to higher

levels of trust and cohesion within their neighborhood communities may be less psychologically distressed, while those who do not have the benefit of these relationships experience heightened distress. This is consistent with pervious research that has demonstrated that lower levels of neighborhood cohesion are related to poorer mental health (see Sampson, Morenoff, & Gannon-Rowley, 2002).

The dearth of information on neighborhood-level social capital among rural families underscores the importance of this finding. Neighborhoods are not only meaningful in rural settings, but they can be very beneficial for residents. Beyond neighborhood cohesion and trust's association with less parental psychological distress, the presence of social capital within rural communities may also have implications for children. Coleman (1988) suggests that these cohesive and trusting relationships between parents are extremely important for children in that they help set norms and guide behavior. Children are directly receiving skills and knowledge about appropriate behavior from these relationships and, consequently, they may engage in less misbehavior. Programs that promote and build social capital within rural neighborhoods may be one way to improve parental mental health as well as child outcomes.

Limitations

Contrary to some of the available literature, psychological distress was not related to negative or engaged parenting behaviors in the current sample. Previous research has demonstrated that depression among rural African American families has been linked to a series of detrimental outcomes that affect family functioning, such as low maternal self-esteem and lower mother-child relationship quality (Brody & Flor, 1997). Additionally,

maternal distress has been linked to lower quality mother-child relationships (Gutman, McLoyd & Tokoyawa, 2005).

Given that these findings have been well documented in the literature, it is important to note some limitations in the present study regarding the findings on parenting behavior and psychological distress. The present study only focused on a few dimensions of parenting behavior, engaged and negative. Parenting encompasses more than just those dimensions, thus the lack of significant findings should not be taken as evidence that residential mobility and psychological distress are not having a long-term impact on parenting. Both lower levels of parental monitoring and harsh parenting have been proposed as possible consequences of maternal distress (McLoyd, 1990). Taking this into consideration, future research should explore additional parenting dimensions within the context of residential mobility.

Additionally, the relationship between psychological distress and observational measures of negative and engaged parenting behaviors may be more complex than what was measured here and can not be captured within the current model. For example, it may be that psychological distress actually increases parental stress and that, in turn, has an impact on parenting behavior. Moreover, while some parents are distressed they may also employ coping strategies to buffer their children. With both types of parents in the sample these nuances may be masked in the current model.

Lastly, the latent psychological distress variable may not have adequately captured parental experiences in this sample. A measure of depression that did not include anxiety and somatization may have produced the hypothesized relationships. Other researchers have found that high rates of residential mobility are associated with

increased levels of depression among African Americans (Brown, Ahmed, Gary, & Milburn, 1995). Additionally, other researchers have included anger as a dimension of psychological distress and have found a link between distress and less optimal parent-child relations (Gutman, McLoyd, &Tokoyawa, 2005).

Although the current study demonstrated the effect of both residential mobility and neighborhood cohesion and trust on psychological distress, some of the non-significant results may also be due to additional limitations. In contrast to predictions made in the current study, several researchers have provided alternate explanations as to the nature of the relationship between residential mobility and neighborhood social capital that could account for the non-significant link between mobility and neighborhood trust and cohesion. A growing body of research suggests that is it not that residential mobility predicts neighborhood cohesion, but, in fact, the relationship operates in the opposite direction. In a study of mobile households, Kan (2007) found that certain neighborhood social capital characteristics can deter families from moving. Families who felt that they had beneficial neighborhood relationships were less likely to move than those who did not. Furthermore, there may also be a selection effect in this regard in that the families who are more likely to move are less likely to live in cohesive neighborhoods and to move into cohesive neighborhoods. Similarly, while some research has suggested that moving reduces social capital, Pettit & McLananhan (2003) suggest that families who move may be less apt at developing social ties.

An additional limitation of the current study was the limited mobility within the sample. The majority of the mobile participants only moved once during the first two years of the child's life. Moving once may not be as detrimental psychologically as

moving multiple times. Alternatively, these rural movers may have had more family social support networks that extended beyond the neighborhood. One of the major strengths of rural communities is the densely interconnected social groups, often made up of extended family members (Cochran et al., 2004; St. Lawrence & Ndiaye, 1997). These networks may have provided a buffer from the negative effects of residential mobility on parenting behaviors even if these networks were not in the immediate community. Perhaps neighborhood trust and cohesion matter less when the family has a strong social support network.

Distance of move is also an aspect of residential mobility that future research should focus on and was not included in the current study. Mobility distance has been shown to be predictor of social network distance. Specifically, long distance movers have networks that are more spread out while local movers' social networks remain close by (Magdol, 2000). The majority of the moves for the current sample were most likely short distance moves given that the families were still participating in the study. Neighborhood trust and cohesion may not be as important when the family has a strong proximal social support network. Additionally, these families may not have had significant changes in neighborhood conditions from one move to the next if their move was a short distance move.

Lastly, people move for different reasons. It may truly be difficult to look at the effects of residential mobility without considering individuals' motivations for moving and their satisfaction with the move. It could be that those who are more satisfied with the move are more likely to form relationships with neighbors and those who are not.

Both of these types of individuals are grouped together in the present analysis and thus maybe masking effects.

Study Implications

Despite the above limitations, the current study adds to what is currently known about residential mobility in rural, African American families with young children. It empirically demonstrates the impact of residential mobility on economic strain and, in turn, psychological distress. The hypothesized model is grounded in the family stress model, which acknowledges the important impact that negative financial events and economic strain have on family functioning. However, focusing on potentially negative financial events, such as residential mobility or job loss, may provide more information as to which factors have the most impact on family functioning.

By empirically demonstrating the impact of residential mobility on parental psychological health, the next step is for researchers to uncover more detailed information as to why rural families are moving. This information will allow for targeted interventions to alleviate the strain associated with residential mobility and provide a more comprehensive understand of this dynamic processes. Families moving because of foreclosure and families moving due to parental divorce may both experience economic strain but may need different types of assistance.

Secondly, this study adds to the growing body of literature highlighting the importance of neighborhood social relationships for parental well-being. Programs directed at promoting positive neighborhood social relationships may provide a critical resource of support for both parents and children. In Western Europe, local governments have adopted integrative neighborhood policies to promote economic, physical, and

social infrastructure in disadvantaged neighborhoods. Specifically, the 'Our Neighborhoods Moves project' (OBAZ) in the Netherlands allows residents to come together, talk about the most pressing issues, and apply for funds to better their communities. This program also provides other community supports such as offices in the neighborhood that provide job information. These policies directly and indirectly improve social relationships by creating opportunities for neighbors to meet and discuss issues (see Van Marissing, Bolt, & Van Kempen, 2006). In conclusion, programs like this may be one avenue by which neighborhood social cohesion can be promoted, there by, potentially reducing parental psychological distress. In turn, these programs would indirectly impact parenting and child outcomes.

Figure 1

The Family Stress Model (Conger & Donnellan, 2007)

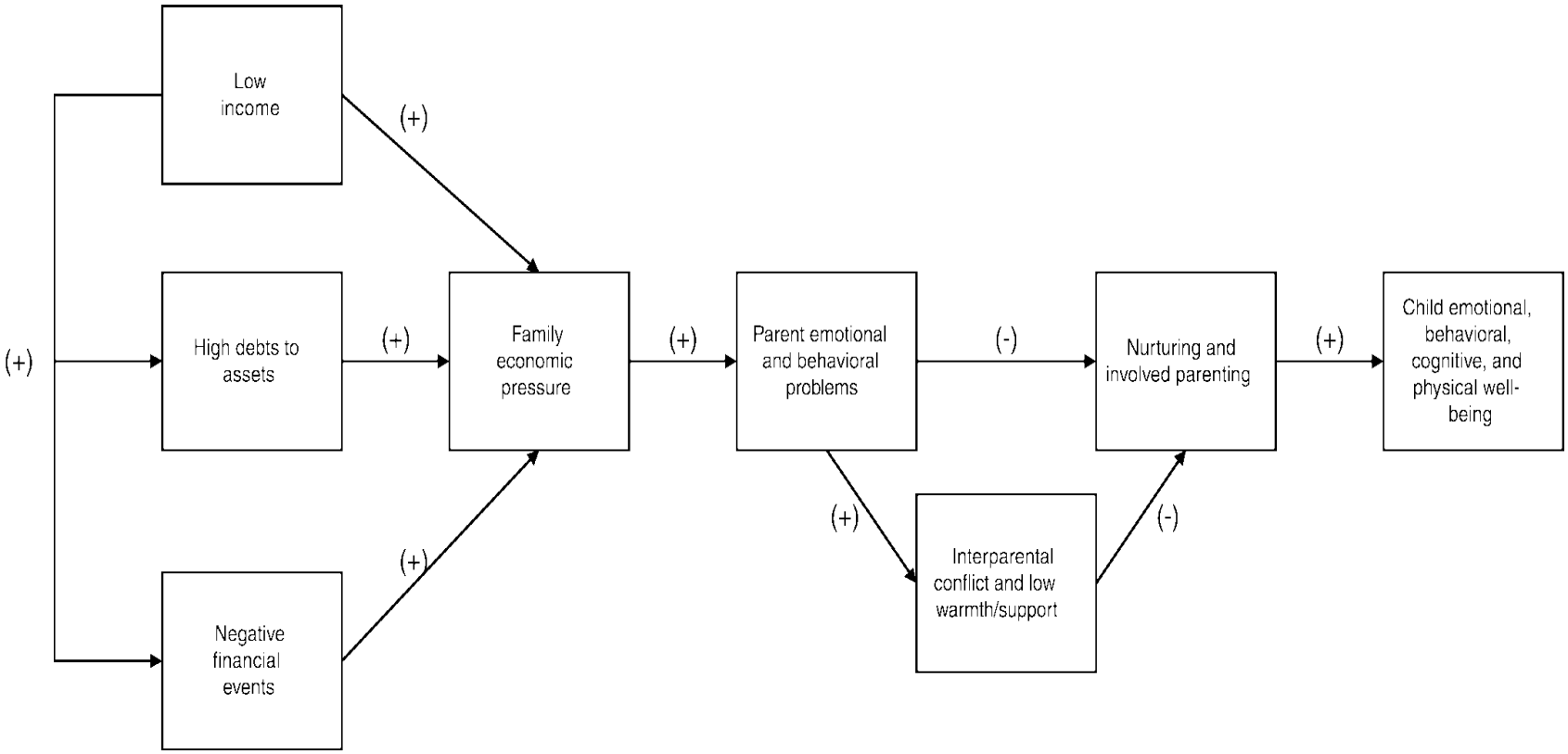

Figure 2

Hypothesized Model Linking Residential Mobility to Parenting at 35 Months

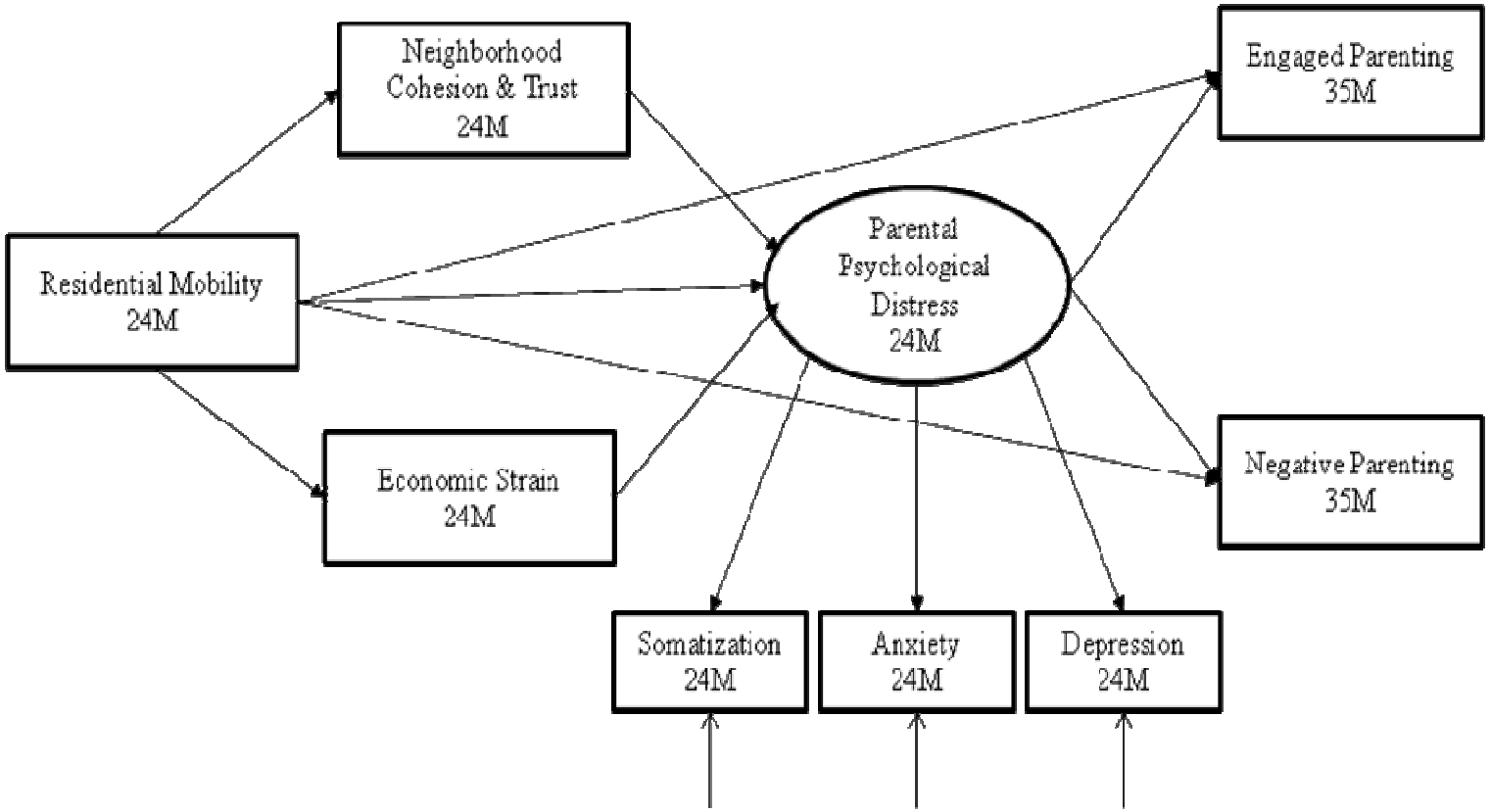

Table 1

Means, Standard Deviations, and Correlations between Variables in Model

Variable	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Parental																		
1. Residential Mobility	.82	1.00	1	-.01	.12*	-.12**	-.03	.02	.04	-.02	-.09	.10*	-.14**	.03	.03	.05	-.08	-.05
2. Neighborhood Cohesion	.63	.26		1	-.24**	.04	-.03	-.15**	-.16**	-.20**	-.07	-.04	.12*	.11*	.05	.13*	.09+	-.10+
3.Economic Strain	13.81	4.08			1	-.03	.00	.27**	.24**	.30**	-.24**	.11*	-.03	-.12*	-.01	.09+	.02	.01
4.Engaged Parenting 35M	2.71	.70				1	-.17**	-.05	-.09+	-.03	.22**	-.28**	.30**	-.03	.00	.02	.52**	-.12*
5.Negative Parenting 35M	2.43	.82					1	.04	.10+	.09+	.00	.11*	-.26**	.15*	-.06	.08	-.13*	.42**
6. Anxiety	2.28	3.47						1	.71**	.78**	-.01	.11*	-.09+	-.09*	-.05	-.01	.02	.07
7. Somatization	2.19	3.29							1	.72**	-.04	.10*	-.19**	-.5	-.04	-.02	-.08	.16**
8. Depression	2.78	4.03								1	-.09	.11*	-.09+	-.13*	-.02	.00	-.02	.14**

0=Married; 1=Single.
0= Caucasian; 1= African American.
0= Male; 1= Female
+ p≤.10 *p≤.05; ** p≤.01.

Table 1 continued.

Variable	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Controls																		
9.Income	1603.46	1075.3									1	-.19**	.32**	.08	-.07	-.08	.18**	.12
10. Marital Status	---	---										1	-.29**	-.01	.04	-.16**	-.31**	.19**
11. Education	14.10	2.47											1	-.03	.04	-.14**	.38**	-.23**
12. Child Gender	---	---												1	-.04	-.02	-.04	.13**
13. # of Negative Events	2.68	3.91													1	.02	.07	-.01
14. # of People in Household	4.42	1.54														1	.04	.01
15. Engaged Parenting 24M	2.77	.77															1	-.25**
16. Negative Parenting 24M	2.56	.86																1

0=Married; 1=Single.
0= Caucasian; 1= African American.
0= Male; 1= Female
+ p≤.10 *p≤.05; ** p≤.01.

Figure 3

Hybrid Model Linking Predictors, Mediators, and Outcomes

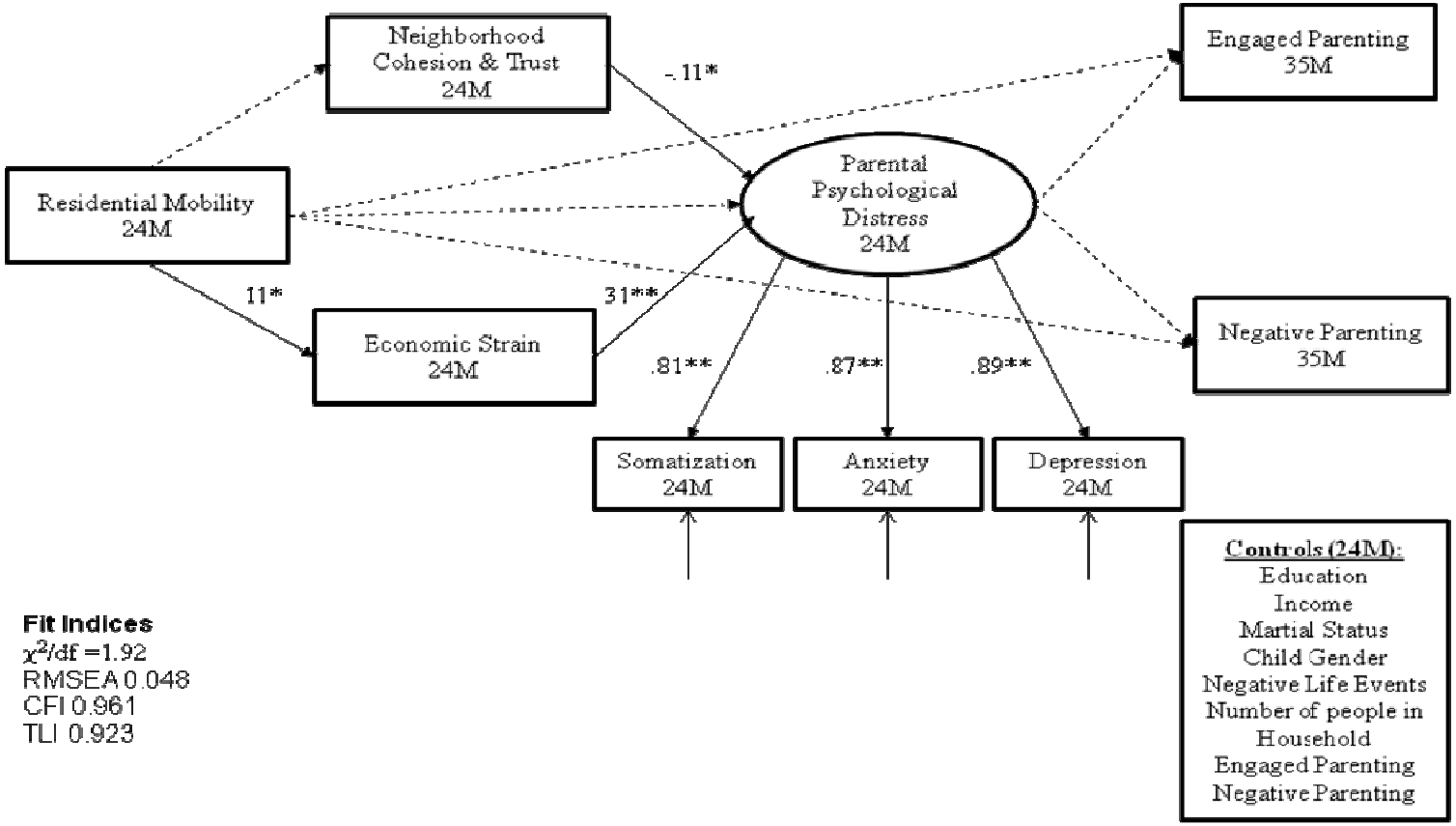

Table 2

Individual-level controls as predictors of mediating and dependent variables in the proposed model

	Mediating and Dependent Variables									
	Economic Strain		Psychological Distress		Neighborhood Cohesion and Trust		Engaged Parenting 35M		Negative Parenting 35M	
Control Variables	β	SE	β	SE	β	SE	β	SE	β	SE
Income	-.26**	.06	.08	.10	.11	.07	.10	.07	.07	.07
Marital Status	.11*	.05	.07	.05	.03	.05	-.10*	.05	.01	.05
Education	.13*	.05	-.13^{+}	.07	.11^{+}	.06	.06	.05	-.20**	.05
# of Negative Life Events	-.03	.04	-.03	.04	.04	.05	-.02	.05	-.04	.05
# of People in Household	.10^{+}	.05	-.01	.05	.16**	.06	.01	.05	.06	.05
Child Gender							-.02	.04	.08^{+}	.07
Engaged Parenting 24M	--	--	--	--	--	--	.44**	.05	--	--
Negative Parenting 24M	--	--	--	--	--	--	--	--	.37**	.05

0=Married; 1=Single.
0= Caucasian; 1= African American.
0=Male; 1=Female
$^{+}$ p≤.10; *p≤.05; ** p≤.01.

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