THE LONGITUDINAL RELATION BETWEEN HOUSING INSECURITY AND NEGATIVE PARENTING PRACTICES

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THE LONGITUDINAL RELATION BETWEEN HOUSING INSECURITY AND NEGATIVE

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<u>Biography</u>

The author was born in Brooklyn, New York, March 19, 1981. They graduated from Midwood

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Table of Contents

List of Tables

List of Figures

Abstract

National and state level data show that families experiencing housing insecurity, especially homelessness, exhibit higher rates of child welfare involvement as compared to low-income housed families; and suggest that certain factors may increase risk of child welfare involvement for housing insecure families. The interplay between housing insecurity, social support, and depression can affect family systems in several ways including through financial and emotional transactions; however, the relation between these factors and the range of housing problems remains unclear. This dissertation assessed how negative parenting practices were impacted by the complexity of circumstances that converge under the umbrella of housing insecurity. Experiencing housing insecurity further exacerbates known risk factors for low-income families such as depression and disrupted social support systems among family and friends. The model presented in this dissertation combined theory from the determinants of parenting model (Belsky, 1984) and the family stress model (Conger, Conger, Elder, Lorenz, Simons, & Whitbeck, 1992) to examine the family processes that contribute to negative parenting practices (i.e., neglect, harsh parenting, emotional maltreatment). Through depression and social support, housing insecurity was hypothesized to have direct and specific indirect effects on negative parenting practices for families involved with child welfare services that face multiple adverse risk factors. Using longitudinal data from the National Survey of Child and Adolescent Wellbeing's second cohort (NSCAW II), structural equation modeling methodology was used for analyses. Regression analyses did not show a significant association between housing insecurity and negative parenting practices mediated through depression and social support. However, supplemental analyses did support an indirect association through social support, despite the absence of a main effect of housing insecurity on negative parenting practices (Hayes, 2009).

These findings suggest that further exploration of the path between housing insecurity and

negative parenting practices is needed, and social support has an important role in understanding

the impact and prevention of maltreatment for families experiencing housing insecurity.

Insecure housing affects a multitude of households throughout the U.S every year and families with children are particularly vulnerable. According to the U.S. Department of Housing and Urban Development (HUD), housing hardship affected 7.7 million low-income non-subsidy renting households in 2013 (HUD, 2015). At forty percent, families composed the largest portion of rent burdened households. In addition, HUD estimates that 578, 424 sheltered and unsheltered people experience homelessness across the U.S. (Henry, Cortes, Shivji, Buck, & Abt Associates, 2015). Of those people experiencing homelessness, 37% were people in families and almost 60% were composed of children less than 18 years of age (Henry et al., 2015). Federal law defines family homelessness as parents living with children on the streets or in shelters, as well as families in jeopardy of losing homes due to inadequate living arrangements (42 USC 11302). Furthermore, predominantly low-income families comprise the vast amount of experiences that have emerged to form two categories of housing insecurity: housing unaffordability and housing instability (Warren & Font, 2015). Housing unaffordability captures the lives of housed families burdened by high rent while housing instability encompasses experiences that range from residential mobility to evictions and homelessness (HUD, 2015; Warren & Font, 2015).

The boundaries between housing unaffordability, crowded living arrangements, residential mobility, experiences of homelessness, and other forms of housing instability often overlap and are closely associated with economic hardship (HUD, 2015; Warren & Font, 2015). Because low-income families with children experience particularly high rates of housing insecurity (Henry et al., 2015), families may subsequently receive unintended increased attention and face greater risk for child welfare involvement (Dworksky, 2014; Park et al., 2004). Families can then face the mounting pressure of housing instability, giving rise to tension amongst family and friends, but ultimately the effect on parent-child interactions is what culminates in child

welfare investigations (Culhane et al., 2003). Along with the insecurity of housing emerge psychological stressors such as depression and changes in social dynamics that can affect families' capacity to manage and cope with the stress of parenting.

The damaging effects of homelessness are well documented in the literature (Barrow & Lewinski, 2009; Bassuk & Beardslee, 2014; Kilmer, Cook, Crusto, Strater, & Haber, 2012; David, Gelberg, & Suchman, 2012; Swick, Williams, & Field, 2013; Shinn, Rog, & Culhane, 2005); however, housing insecurity integrates a broad scope of housing problems, including homelessness. Understanding how different forms of housing hardship overlap is necessary to gain a more thorough understanding of how families impacted on multiple levels become increasingly exposed to risks such as child welfare service involvement and psychosocial stress. Additionally, as the issue of housing insecurity continues to be addressed research is also needed to identify how the intersecting risks associated with housing insecurity ultimately impacts the parent-child relationship.

The Intersection of Housing Insecurity and Child Welfare Services

In a recent report HUD released biannual data on the most critical problems of low-income renters from the American Housing Survey (HUD, 2015). According to HUD, families are characterized as severely rent burdened when their incomes are no more than 50% of the area median income and approximately 50% of their income is allotted toward rent (HUD, 2013). In addition, inadequate living conditions (e.g. physical problems heating, plumbing, etc.) also contribute to the housing hardship experienced by these families. High rent in relation to income is the primary reason families are at risk for housing insecurity, as well as a scarcity of available affordable units (HUD, 2015), suggesting that financial burden may often accompany housing hardship. Housing units intended for low-income and extremely low-income households are not

available, as renters with higher incomes were found to occupy 35% and 61% of the affordable

units available to each group, respectively (HUD, 2015).

      Impact of Housing Unaffordability. Findings on housing affordability suggest the

negative impact of economic hardship on child well-being is most apparent in early childhood

and the benefits may be an accumulative experience as children age (Harkness & Newman,

2005). As a result, families vulnerable to housing related hardship are typically brought to the

attention of child welfare services (Torrico, 2009). The risk of child welfare involvement brought

on by housing hardship suggests the accumulative benefits of housing affordability once children

are in adolescence may not outweigh the immediate impact of economic strain on families,

especially for families with young children.

      In terms of child maltreatment risks, unaffordability alone does not solely explain the

impact of housing insecurity. Warren and Font (2015) found marginal significant indirect

associations of unaffordability with abuse and neglect risks through maternal stress; however,

their overall findings indicated a stronger relation between housing instability and neglect and

abuse risks, supporting the need to include both housing unaffordability and instability to

thoroughly examine the impact of housing insecurity on child wellbeing.

      Impact of Housing Instability. Similar to housing unaffordability, housing instability

also describes critical junctures for low-income families; however, housing instability also

describes experiences such as residential mobility and homelessness (Warren & Font, 2015).

Many risk factors such as unemployment, community violence, hunger, and frequent school

changes are similar for both low-income adults and children and those experiencing

homelessness (Buckner, 2008), which suggests that some families characterized by

unaffordability may also be at risk for housing instability and ultimately experience similar

challenges. Most research supports the idea that homelessness is something families pass through and as a result families can experience transitional periods of living on the streets and in shelters; however, more persistent patterns of residential mobility develop as families also navigate crowded living arrangements with family or friends (Rog, 2008; Shinn, Weitzman, Stojanovic, Knickman, Jimenez, Duchon, & Krantz, 1998). Furthermore, pervasive poverty and depleted social support systems can exacerbate the risk of child welfare involvement and ultimately leave families vulnerable to repeated bouts of homelessness (Shinn & Bassuk, 2004; Zugazaga, 2008).

Child Welfare Involvement. Several studies have highlighted the relevance of housing insecurity for families' involvement in child welfare. Families experiencing housing insecurity, especially homeless, have been shown to exhibit higher rates of child welfare involvement as compared to low-income housed families (Bassuk et al., 1997; Culhane, Webb, Grim, Metraux, & Culhane, 2003; Park, Metraux, Brodbar, & Culhane, 2004; Dworsky, 2014), subsequent foster care placement (Culhane et al., 2003), and mother-child separations (Cowal, Shinn, Weitzman, Stanjanovic, & Labay, 2002). Consistent with previous research, one recent study found a significant increase in the risk for out-of-home placement for intact families under investigation for maltreatment with 16% of families experiencing inadequate housing (Fowler et al., 2013). In another study, doubled-up arrangements and experiences of homelessness were found to exacerbate the risk for case substantiation when considered in conjunction with other factors such as mental health and substance abuse issues (Font & Warren, 2013). Additionally, substantiated cases for families with housing instability were also less likely to have their cases closed (Font & Warren, 2013).

Three main reasons have been offered throughout the literature to explain higher rates of child welfare service involvement amongst people experiencing homelessness and other

inadequately housed populations. One explanation is that families may receive increased

attention directly as result of their experience of homelessness or inadequate living arrangements

that jeopardize the safety of a child, despite state level exemptions of poverty as an indicator of

maltreatment (Dworksky, 2014). Furthermore, stress related to the conditions of housing

insecurity may compromise parenting ability and lead to neglect or abuse (Culhane et al., 2003).

Lastly, what has been termed the "fish bowl effect" describes the close scrutiny sheltered parents

may experience from staff who are required to report evidence of neglect or abuse (Park et al.,

2004). Given the risks associated with housing insecurity parents face numerous challenges to

parenting while also trying to secure stable housing.

Parenting While Housing Insecure

Often the factors that hinder parents' ability to secure stable housing also disrupt the

routines and rituals that are fundamental to parenting (Hausman & Hammen, 1993; Mayberry,

Shinn, Benton, & Wise, 2014). Parents report interactions with their children while living in

shelters and transitional housing can be affected by facility rules, an overall lack of privacy, and

the threat of child protective services (CPS) involvement (Mayberry et al., 2014). Parents in

doubled-up living arrangements similarly report the need to adapt their parenting routines to the

already established rules of the house, as well as manage the added parental influence from

family and friends (Mayberry et al., 2014). The overlap between housing insecurity and

parenting may be further explored through its impact on families' social and psychological

wellbeing.

Social Support. Disruptions in social networks and the causal relations between

homelessness and depleted social networks characterize much of the social support research

(Bassuk et al., 1997; Goodman, 1991; Letiecq, Anderson, & Koblinsky, 1998; Shinn, Knickman,

& Weitzman, 1991; Toohey, Shinn, & Weitzman, 2004). Studies have primarily examined social

support for families experiencing homelessness in relation to low-income housed families

(Bassuk et al., 1997; Goodman, 1991; Letiecq et al., 1998; Shinn et al., 1991) and the findings

are mixed. Sheltered mothers have been found to have fewer network members along with more

conflicted relationships (Bassuk et al., 1997). Similarly mothers living in shelters and transitional

housing have been found to communicate less frequently with their network members (Letiecq et

al., 1998). Furthermore, sheltered mothers in particular perceived fewer network members as a

reliable source for tangible and perceived support (Letiecq et al., 1998). Contrastingly, other

studies have found no differences for sheltered mothers in terms of network structure (e.g., size,

composition) and frequency of contact with network members (Goodman, 1991; Shinn et al.,

1991; Toohey et al., 2004). Studies with different points-of-contact (Letiecq et al., 1998; Shinn et

al., 1991; Toohey et al., 2004) likely illuminate fluctuations in social support that demonstrate

patterns among multiple factors. The findings from these studies highlight not only structural but

also qualitative network changes that suggest families facing challenges securing stable housing

may find it difficult to meet their immediate housing related needs through network members

who do remain in contact. Moreover, the presence of conflict among network members may

likely diminish the positive benefits associated with social support (Bassuk et al., 1997).

Social support research with families experiencing housing insecurity is sparse; however,

studies that address similar housing concerns with broader populations may provide additional

understanding of how certain aspects of housing insecurity affect social support. Evidence from

research specifically focused on the processes of residential mobility suggests that certain aspects

of housing insecurity may have long-term effects on strategies used to form social relationships

(Lun, Roth, Oishi, & Kesebir, 2012). One study with a sample of undergraduate students found

that childhood residential movers who were primed for social support uncertainty were significantly more likely to compartmentalize their friendships than non-movers, suggesting that individuals impacted by residential mobility adopt compartmentalization strategies to reduce concern over social support availability while cultivating new relationships (Lun et al., 2012). These findings highlight potential psychological influences of childhood residential mobility on forming social relationships in adulthood.

The research on social support in association with factors related to housing insecurity includes a multitude of circumstances, and suggests there are important considerations to keep in mind when interpreting social support findings. In addition to social stressors, parent's experiencing housing insecurity face other psychological stress as well. Depression has been found in substantially higher rates in low-income families that eventually experience housing instability along with continued economic hardship (Bassuk & Beardslee, 2014; Rog, & Buckner, 2007).

Depression. According to a report by the National Research Council (NRC) and the Institute of Medicine (IOM), approximately 15.6 million children live with an adult who suffers from major depression (England & Sim, 2009). Additionally, families experiencing homelessness or inadequate housing often exhibit higher rates of depression than those with low income and stably housed (Bassuk & Beardslee, 2014; Rog, & Buckner, 2007). For example, 47% of families experiencing homelessness reported feelings of sadness or depression for at least two weeks compared to 12% of stably housed families, and a similar experience was reported at a 3-year follow-up (Rog, Holupka, Hastings, & Patton, 2007).

In a national probability study evaluating mother-child dyads under investigation by child welfare services, depression was found to be consistently high over time and associated with

greater risk of emotional maltreatment and neglect (Kohl et al., 2011). Findings suggest

depression may impede mother's ability to provide safe and positive parenting practices (Kohl et

al., 2011). Growing research suggests that families experiencing housing insecurity exhibit

higher rates of depression, as well as child welfare involvement (Bassuk & Beardslee, 2014;

Rog, & Buckner, 2007; Bassuk et al., 1997; Culhane et al., 2003; Park et al., 2004; Dworsky,

2014; Warren & Font, 2015). Depression in combination with additional psychosocial factors

may be necessary to elucidate the mechanisms operating between housing insecurity and child

maltreatment.

        Children. The economic and psychological burden of housing insecurity risks and child

welfare involvement simultaneously affects parents and children, and child safety is the primary

reason families become involved with child welfare services. Caregiver mental health has been

found to partially explain the relation with internal and externalizing mental health problems for

a sample of CPS involved children living in low social support environments (Quinn et al.,

2014), suggesting both parental mental health and social support play a role in child mental

health outcomes. Furthermore, data from the Fragile Families and Child Well-Being study was

used to examine the role of housing instability, one component of housing insecurity, on negative

parenting behaviors and found higher rates of physically and psychologically aggressive

behaviors toward children among homeless or doubled-up mothers compared to low-income

housed mothers (Park, Ostler, & Fertig 2015). When housing-insecure parents are exposed to

multiple psycho-social stressors, the overall quality of the home environment is disrupted,

strengthening associations with maltreatment risks and ultimately negatively impacting

children's socio-emotional development on multiple levels (Slack et., 2011; Stith et., 2009;

Chamberland et al., 2014; & Park et al., 2015).

Parenting Models

Theory from two process models were combined in the present study to illustrate the link between housing insecurity and negative parenting practices (see Fig 1) for families involved with child welfare services; the family stress (FS) model, and the determinants of parenting (DOP) model (Conger, Conger, Elder, Lorenz, Simons, & Whitbeck, 1992; Warren & Font, 2015; & Belsky, 1984). Multiple variations of the FS model have been well established in the literature (Conger et al., 1992; Levanthal & Newman, 2010; Warren & Font, 2015). The FS model proposes that economic hardship in conjunction with low income is associated with parental stress, depression, and partner conflict (Conger et al., 1992; Levanthal & Newman, 2010; Warren & Font, 2015). Additionally, when the economic burden is severe, the experience of economic hardship usurps all other family processes (Conger et al., 1992; Warren & Font, 2015). The DOP model posits that maltreatment can be used to understand the dynamics of the individual characteristics of parenting behavior, specifically through three domains of parental functioning: parental personal psychological resources, child characteristics, and contextual sources of stress and support (Belsky, 1984). Moreover, personal psychological resources are considered the most crucial and influential component necessary to promote healthy parental functioning followed by contextual sources of support or stress (Belsky, 1984), often measured by depression and social support (Belsky, 1984; Simmons, Lorenz, Wu, & Conger, 1993; Salazar, Keller, & Courtney, 2011).

The mediational relation between economic stress and parenting has been supported through associations with depression and social support (Lee, Lee, & August, 2011; Simmons et al., 1993; Salazar et al., 2011). Economic hardship can often result in parents feeling frustrated, overwhelmed, and devoid of the emotional and physical energy necessary to maintain strong

social networks and secure living environments (Lee et al., 2011). Additionally, for families

experiencing homelessness, which are primarily headed by single mothers (Bassuk et al., 1997;

Bassuk & Geller, 2006; Marra et al., 2009), social networks are likely the main source of support

impacting on parental functioning. Recent studies assert that the family stress model may be

applicable to housing insecurity because circumstances such as crowding, unaffordability, and

instability often result from economic hardship (HUD, 2015; Levanthal & Newman, 2010;

Warren & Font, 2015). The cyclic nature of housing insecurity for low-income families suggests

a long-lasting impact on the parent-child relationship.

Fig1: Housing Insecurity, Depression, Social Support, and Negative Parenting Practices
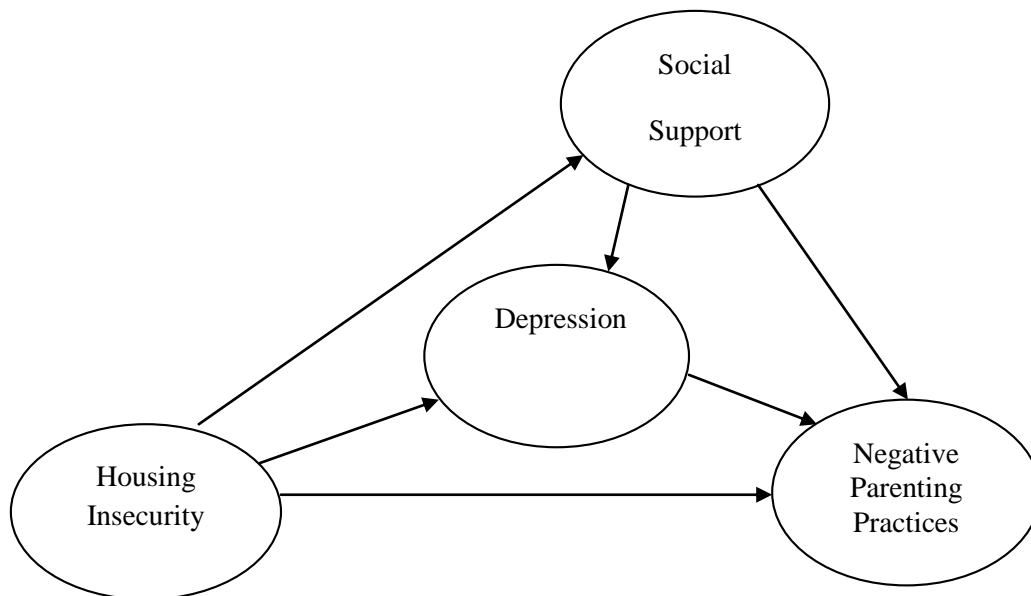
Rationale

Housing insecurity places low income families at greater risk for child welfare involvement, psychological stress, and subsequent disruptions to the parent-child relationship. Presently a majority of the housing literature captures mainly the experiences of individual aspects of housing hardship such as homelessness and residential mobility; however, little research includes the broad range of experiences described by housing insecurity, as well as the impact on family dynamics. Warren and Font's (2015) investigation of the mechanisms driving the relation between housing insecurity and child maltreatment risk through parenting stress is one of few studies to specifically examine multiple indicators under the umbrella of housing insecurity. Housing insecurity was measured by indicators of housing affordability, residential mobility, eviction, and homelessness. Park and colleagues (2015) also examined one aspect of housing insecurity, instability (i.e. doubled-up and homelessness), but did not explore mediation effects. Both studies used longitudinal data from the Fragile Families and Child Well-Being study, an at risk population. The current study used families with recent child welfare involvement at baseline and focused solely on neglect, rather than abuse and neglect (Warren and Font, 2015) or specific psychological and physically aggressive behaviors toward a child (Park et al., 2015). To provide a more comprehensive understanding of the impact of housing hardship the current study used multiple indicators, similar to the previously mentioned studies, to explicate the relation between housing insecurity and negative parenting practices over time after controlling for confounding variables. In addition, housing insecurity was used as the contextual life stressor in the present study model because of its close association with economic hardship and link with child maltreatment risks, particularly psychological aggression toward a child and neglect (Park et al., 2015; Warren & Font, 2015).

The current study sample of child welfare involved families also represents a more socioeconomic and ethnically diverse sample of families compared to the predominantly white samples used in early studies (Lee et al., 2011; Simmons et al. 1993) with the present models, and provide a closer estimation of how maltreatment can inform negative parenting practices. Additionally, meditation effects of social support and depression over time were also examined in the current study to further elucidate the relation between housing insecurity and negative parenting practices. Social support was used as the main source of support given the most at risk families are usually single-parent households. Lastly, longitudinal data were used for study analyses as some research suggests it is the preferred method to truly examine mediation, as oppose to cross sectional data (Maxwell & Cole, 2007; Selig & Preacher, 2009). For families most at risk for housing insecurity, the experience of housing insecurity is likely elongated and housing insecurity may be best captured over a period of time. The present study contributes to emerging research exploring the complex longitudinal patterns of housing insecurity, and its relation to maltreatment and associated risks. Results from this study can inform policy and prevention services that address the diverse ecological circumstances families encounter, as well as the growing conversation about what role child welfare agencies should have in addressing housing related concerns.

Statement of Hypotheses

I.   There will be a significant association between housing insecurity at Time 1 and negative parenting practices at Time 3 after statistically controlling for caregiver's age, child age, caregiver's employment status, and caregiver's highest degree; such that housing insecure families will have higher negative parenting practices scores than non-housing insecure families.

- Negative parenting practices will be defined by measures of harsh parenting, emotional maltreatment, and neglect. Housing insecurity will be defined by five indicators of housing problems: housing neglect risk, residential mobility, income, doubled-up, and emergency housing.

II. The relation between housing insecurity at Time 1 and negative parenting practices at Time 3 will be mediated by caregiver depression at Time 2.

III. The relation between housing insecurity at Time 1 and negative parenting practices at Time 3 will be indirectly mediated by social support at time 1 through depression at Time 2.

Method

Participants

Data were drawn from the second cohort of the National Survey of Child and Adolescent Well-Being II (NSCAW II), a longitudinal study of families under investigation by Child Protective Services (CPS), which was sampled from 81 of the original 92 primary sampling units (PSUs) used in NSCAW I and followed essentially the same study design (NSCAW Research Group, 2010). The full NSCAW study began in 1997 and has plans to continue data collection for a third cohort until 2022. The full NSCAW II study consisted of a stratified sample of 5872 children (birth to 17.5 years old) from 83 counties nationwide with CPS investigations closed between 2008 and 2009 and all data collection ended in 2012 (Dolan, Smith, Casanueva, & Ringeisen, 2011). The age range in NSCAW II was expanded from 14 years to 17.5 years to include growing policy interest in children aging out of out-of-home placement. Children across the U.S. who were subjects of child abuse or neglect investigations or assessments with CPS were included in the study target population; however, eight states were excluded based state law which prohibited initial caregiver contact from by personnel (e.g. NSCAW field representatives) other than CPS agency staff (Dowd et al., 2013). The same PSU's were used from the first to the second cohort in order to facilitate comparisons, under the impact of agencies, and to utilize already established cooperative relationships. Of the 5,872 cases, data from families that were intact (i.e. children not in out-of-home placement) at the start of the child welfare investigation and the primary caregiver remained the same at Time 1, 2 and 3 were included. The present study included 1,418 intact cases where the primary caregiver remained the same at all three time points.

Measures

Covariates, and Caregiver and Child Demographics. Study covariates were current caregiver's age in years, current caregiver race, caregiver's marital status, caregiver's employment status, caregiver's highest degree, child age in years, and case substantiation indicator. Covariates were measured at baseline. All covariates were reported by current caregiver except case substantiation indicator which was included in each case report. Caregiver race included four categories: Native Indian/Alaskan, Asian/Hawaiian/Pac Is, Black, and White. Caregiver marital status included five categories: married, divorced, widowed, separated, and single. A dichotomous marital status variable was created that compared married to all other categories. Employment status included six categories: full-time, part-time, work sometimes, unemployed, do not work, and other. A dichotomous employment status variable was formed which compared unemployed, do not work, and other to all other categories. Caregiver highest degree was assigned to six categories: no degree, high school diploma/GED, certificate/vocational diploma, associates/bachelors degree, masters/graduate degree, and other. A dichotomous highest degree variable was created that compared no degree/other to high school diploma/GED or higher. Case substantiation indicator was binary ($1 = $ yes, $2 = $ no) and indicated whether CPS case reports were substantiated. Sample demographic variables included caregiver and child gender which were measured at baseline. Covariates that were not significantly correlated with at least two main study variables were removed. Covariates included in final analysis included caregiver's age, child age, caregiver's employment status, and caregiver's highest degree.

Housing Insecurity. Based on previous methods of measuring housing insecurity in the literature, five indicators are recommended: housing neglect risk, residential mobility, income,

doubled-up, and emergency shelter (Font & Warren, 2013; Fowler et al., 2013; Warren & Font,

2015). Housing neglect risk was a composite variable ("In the last 12 months did caregiver need

help finding a place to live? Did agency staff refer caregiver to housing services such as public

housing or an emergency shelter?"), dichotomous (1 = yes, 2 = no), and indicated whether

inadequate shelter was a risk for neglect. Residential mobility was continuous and caregivers

were asked "how many times have you moved in the past 12 months?" Income was ordinal and

included the "percentage of federal poverty level" (1 = families at or below federal poverty level,

2 = 101 to 199% poverty, 3 = 200% or more of poverty level). Doubled-up was a composite

variable and dichotomous (1 = yes, 2 = no). Families were considered doubled-up if at least two

non-immediate family members were listed as residents within the same household. Lastly,

emergency housing use was dichotomous (1 = yes, 2 = no) and asked "In the last 12 months,

have you received emergency shelter or emergency housing?" Given that no data was available

for residential mobility at Time 1; residential mobility was omitted as an indicator of housing

insecurity. Thus, four indicators (i.e., housing neglect, income, doubled-up, and emergency

housing) were summed to form a composite variable for housing insecurity with scores $\geq 2 = 0$

(non-housing insecure) and scores $< 2 = 1$ (housing insecure group). Receipt of housing support

(e.g. section 8 housing subsidy or living in public housing) excluded families from the housing

insecure group. Research suggests families receiving housing subsidies may represent a

markedly different population as a result of the intended autonomy housing subsidies are

expected to provide (Font & Warren, 2013).

Depression. The Composite International Diagnostic Interview Short-Form CIDI-SF is a

structured interview designed to screen for common psychiatric disorders with diagnostic criteria

established in the *Diagnostic and Statistical Manual of Mental Disorders* including depression

(4th ed.; DSM-IV; American Psychiatric Association, 1994; Kessler, Andrews, Mroczek, Ustun,

& Wittchen, 1998). A modified version was used in NSCAW II. Preliminary questions for

dysphoria included three items (e.g. during the previous 12 months there was a time when they

felt sad, blue) and three items for anhedonia. Only raw scores for positive responses to

preliminary stem questions for either dysphoric or anhedonic depression were computed. These

raw scores were then recoded as 1 and labeled as "Yes" for major depression. Negative

responses to stem questions were recorded as 0 and labeled as "No" for major depression. In

order to meet diagnostic criteria three or more symptoms in additional areas (7 items total) also

needed to be endorsed. Participants were dichotomized as having major depression or not having

major depression based on whether criteria were met. Valid estimates of accuracy have been

found for the CIDI-SF (Kessler et al., 1998; Kessler et al., 2009; Green et al., 2011; Green et al.,

2012).

Social Support. The Duke-UNC Functional Social Support Questionnaire SSQ is a 27-

item questionnaire designed to measure perceptions of social support and satisfaction (FSSQ;

Broadhead, Gehlbach, deGruy, and Kaplan, 1988; Sarason, Levine, Basham, & Sarason, 1983;

Sarason, Sarason, Shearin & Pierce, 1987). An 11-item adapted version was used in NSCAW II.

Language was adapted for relevance with NSCAW population (e.g. "chances to talk to someone

I trust about my personal and family problems" or "help when I need transportation"). A five-

part response scale was used ranging from 1 ("I get much less than I would like") to 5 ("I get as

much as I like") to assess nearest response to caregiver's situation. Total possible scores ranged

from 11 to 55, where lower scores indicated low levels of support and higher scores indicated

high levels of support. Sufficient estimates of test-retest and internal reliability have been

established for the SSQ ($r = .94$ to $.98$) and validated with brief versions (Sarason et al., 1987).

Negative Parenting Practices. The Parent-Child Conflict Tactics Scale (CTS-PC) was developed to assess the frequency and incidence of certain physical and psychological acts of aggression (Straus, Hamby, Finkelhor, Moore, & Runyon, 1998). Specific subscales of harsh parenting (8-items), emotional maltreatment (10-items), and neglect (10-items) were used. The measure uses an 8-point Likert-type scale (1 time, 2 times, 3 to 5 times, 6 to 10 times, 11 to 20 times, more than 20 times, and not in the past 12 months, never) and scoring was computed by totaling the midpoints of each participant response. A score of 25 is suggested for responses of "more than 20 times." Internal consistency for NSCAW II caregiver total scores were good (α = .92) and subscales ranged from .66 to .95 (Dowd et al., 2013). Audio computer-assisted self-interviewing (ACASI) was used to reduce social desirability and provide a comfortable environment for disclosure (Dowd et al., 2013).

Procedures

Data for NSCAW II were collected using similar probabilistic sampling methods to NSCAW I (Dowd et al., 2013). Nine sampling strata were formed across the United States, eight from states with the highest child welfare caseloads, and the ninth was composed from the remaining 42 states and the District of Columbia. Face-to-face baseline interviews were conducted by trained NSCAW staff between March 2008 and September 2009 and data were obtained from multiple sources including children, parents, non-parental caregivers, caseworks, and teachers. The second and third waves of the study began approximately 18 and 36 months respectively after the close of the NSCAW II index investigation. The current study used data collected at baseline, wave two, and wave three.

Caregivers were contacted about study participation approximately 45 days following the close of maltreatment investigations by letter and then by phone; and child, caregiver, and

caseworker interviews were conducted on average three months after closure (Dowd et al.,

2013). In-home interviews in English and Spanish were provided to youth and caregivers and

caseworker interviews were conducted at child welfare agencies (Dowd et al., 2013). In order to

reduce social desirability bias and provide comfortable conditions for disclosure of sensitive

information, audio computer-assisted self-interviewing (ACASI) was used with caregivers and

older children (Bowling, 2005; Dowd et al., 2013). Caregivers completed interviews through

computer-assisted personal interviewing sessions (Dowd et al., 2013). Compensation for study

participation ranged from $10 gift certificates for young children (10 years and under) to $20 gift

certificates for adolescents (11 years and older) and $50 cash incentives for caregivers (Dowd et

al., 2013). Child welfare agencies received financial assistance ($100 to $1000) to cover study

related costs (Dowd et al., 2013).

Analytic Approach

The present study used longitudinal mediation analyses and structural equation modeling

(SEM) to examine the impact of housing insecurity, mediated by depression and social support,

on negative parenting practices for child welfare involved families (see Figure 2). Analyses were

conducted using SPSS Statistics 21 (2012) for descriptive statistics and bivariate correlations,

and Mplus 7.2 (Muthén & Muthén, 1998-2012) statistical software for structural equation

modeling and path analyses.

A series of multiple regression analyses were run to assess the direct and indirect effects

of housing insecurity on negative parenting practices across time while accounting for control

variables: caregiver's age, caregiver's employment status, caregiver's highest degree, and child

age. Housing insecurity at Time 1 and negative parenting practices (Model 1, constrained) was

run in Mplus. Each of the following control variables were then entered based on the following

models: caregiver's employment status, caregiver education level, child age (Model 2),

caregiver's employment status, caregiver education level, (Model 3), caregiver's employment

status (Model 4), Unconstrained (Model 5). Additional regression analyses were also run to

determine if separate models for negative parenting practices (harsh discipline, emotional

maltreatment, and neglect) best fit the data.

After model fit was established, a final model was run and used with a single multiple

mediation model approach to test the current study hypotheses including covariates with

significant predictions of negative parenting practices that resulted from the previous model

comparisons. Nonparametric bootstrapping procedures were originally proposed to estimate the

standard errors and confidence intervals (CI) for path coefficients (Cole & Maxwell, 2003;

Preacher & Hayes, 2008; Preacher & Hayes, 2004); however, a robust WLSMV estimator was

used in final analyses to account for the categorical indicator depression and as a result

bootstrapping was not used in analyses. Because traditional Chi Square is part of the maximum

likelihood method (MLM), the DIFFTEST option in Mplus was used to improve computational

speed and to accommodate behavioral changes in Chi Square values, as well as degrees of

freedom, when using WLSMV (Muthén & Muthén, 1998-2012). For supplemental analyses

inclusion of covariates were reassessed based on correlations with main study variables (housing

insecurity (Time 1), depression (Time 2), social support (Time 1), and negative parenting

practices (Time 3).

Data for social support were not available (i.e. missing) at wave 2, thus wave 1 data were

used in study analyses. Additionally, after preliminary analyses, harsh discipline, emotional

maltreatment, and neglect were found to be highly correlated. As a result, a single variable for

negative parenting practices was determined to provide the best fit for model analyses. The mean

score for harsh discipline, emotional maltreatment, and neglect at Time 3 were used to form the

negative parenting practices variable (Kline, 2011).

Figure 2: Housing Insecurity and Negative Parenting Practices Multiple Mediator Model.
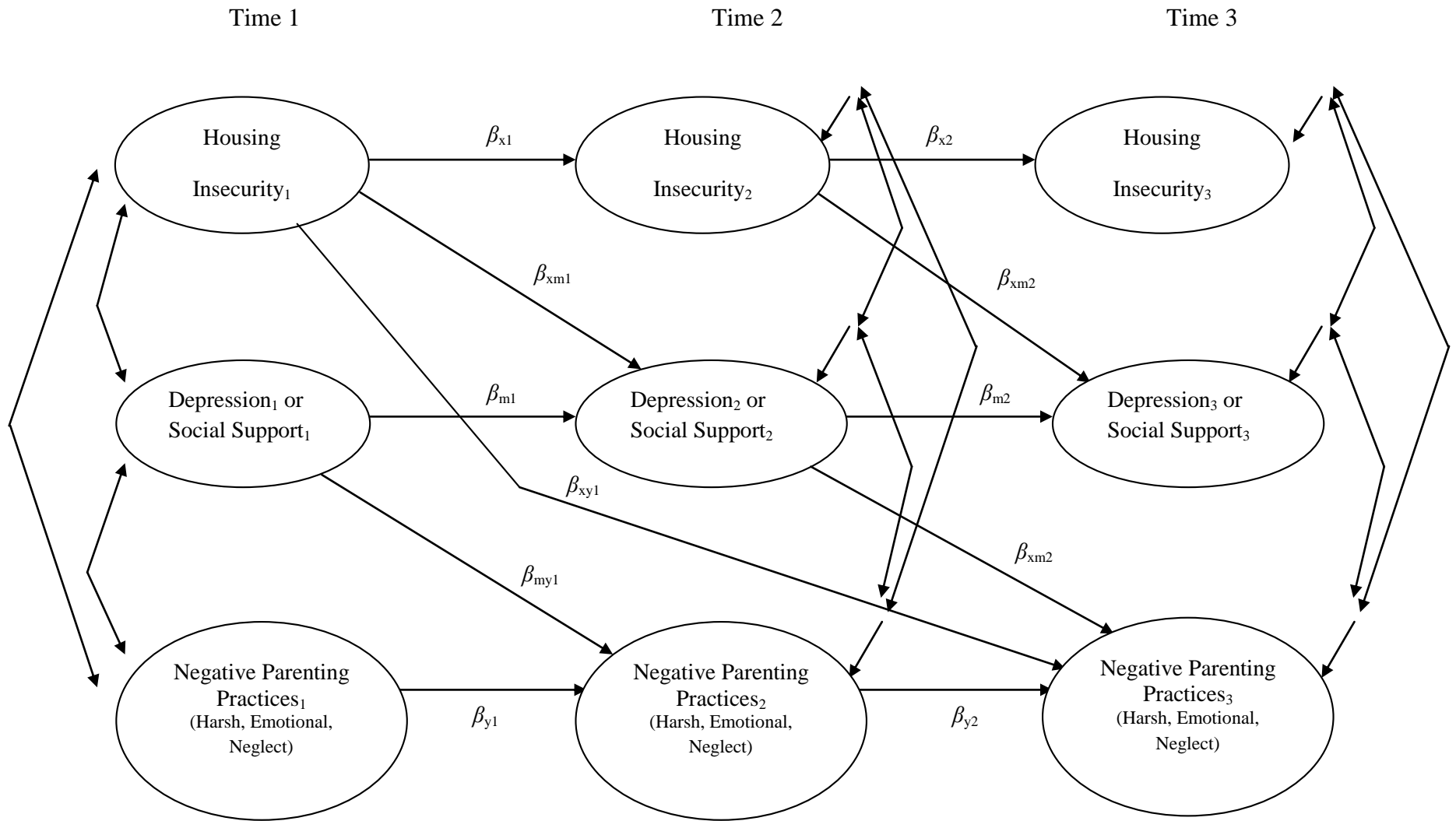
Results

Participants for the full study sample (N = 1,418) were predominantly female caregivers (93.7%) with a mean age of 30.04 (SD = 8.46) and a range of 18 - 65 years. A majority (74.5%) of caregivers were younger than 35 years old. Mean child age was 4.67 years (SD = 4.37) between 0-15 years. Caregivers were 55.6% White, 27.5% Black, 7.5% Native Indian or Alaskan, and 2.6% Asian or Pacific Islander. Nearly 24% of caregivers were married and 49.1% had never been married. More than half (61%) of families were at or below the poverty level (based on 2009 guidelines at baseline) and unemployed (55.8%) for various reasons, such as looking for work, family responsibilities, retired, illness, did not want to work, and currently a student. Almost one quarter (23.4%) of the sample met criteria for major depression. All sample demographics and study variables for Non-housing Insecure (n = 1088) and Housing Insecure (n = 330) data are summarized in Table 1.

Table 1
Sample Demographics of Non-Housing and Housing Insecure Groups at Baseline

	Non-Housing Insecure n = 1088	Housing Insecure n = 330
Demographics and Covariates		
Caregiver Age M (SD)	30.86 (8.49)	27.34 (7.78)
Caregiver Gender (%)		
Female	92.7	96.4
Male	7.3	3.6
Caregiver Race/ethnicity (%)		
White	61.0	55.3
Black/African American	29.1	30.9
Native Indian/Alaskan	7.3	10.5
Asian/Hawaiian/Pac Is	2.7	3.3
Caregiver Marital Status (%)		

Unmarried (Separated, Divorced, Widowed, Have you never been married?)	74.6	82.7
Married	25.4	17.3
Caregiver Current Employment Situation (%)		
Unemployed (e.g. looking, family, retired, illness, student, etc)	52.2	67.3
Employed (i.e. regularly fulltime/part-time, sometimes when available)	45.3	30.0
Caregiver Highest Degree (%)		
H.S. Diploma/H.S. Equivalency or higher (i.e. certificate/vocational/A.S./B.A./M.A./other graduate degree)	66.1	60.0
No Degree/Other	33.9	40.0
Substantiated Indicator (%)	55.7	56.2
Child Age M (SD)	5.04 (4.41)	3.46 (3.99)
Child Gender (%)	48.9	48.2
Male	51.1	51.8
Female	48.9	48.2
Model Variables (Time 1)		
Social Support M (SD)	3.80 (1.01)	3.67 (1.03)
Depression (%)	26.6	33.9
Negative Parenting Practices M (SD)	.63 (.23)	.62 (.23)

Correlations and Chi-Square

Bivariate correlations are summarized in Table 2. Among main study main variables, housing insecurity had a significant negative correlation with social support ($r = -.06, p = .04$). Social support had a significant negative correlation with depression ($r = -.17, p = .00$) and negative parenting practices ($r = -.13, p = .00$). Lastly, depression and negative parenting practices were significantly positively correlated ($r = .18, p = .00$).

In terms of covariates, housing insecurity was positively associated with caregiver race ($\chi^2 = 4.99, df = 3, p = .17$) and substantiated indicator ($\chi^2 = .03, df = 1, p = .87$); and negatively correlated with caregiver age ($r = .18, p = .00$), caregiver employment situation ($r = -.13, p = .00$), caregiver highest degree ($r = -.05, p = .04$), and child age ($r = -.15, p = .00$). Social support was significantly negatively correlated with caregiver age ($r = -.09, p = .00$) and positively

correlated with caregiver employment situation ($r = .06$, $p = .03$). Depression was significantly

positively correlated with caregiver highest degree ($r = .07$, $p = .02$), and child age ($r = .07$, $p = $

.01) and caregiver employment situation ($r = -.07$, $p = .00$). Lastly, negative parenting practices

were significantly positively associated with caregiver highest degree ($r = .07$, $p = .00$) and child

age ($r = .09$, $p = .00$). Effect sizes ranged from small to moderately, but were predominantly

small. Based on nonsignificant correlations with at least two main study variables caregiver race,

marital status, and the case substantiation indicator were removed.

Table 2

Means, Standard Deviations, and Correlations for Study Variables

	1	2	3	4	5	6	7	8
1. Caregiver's Age	1.00							
2. Caregiver' Employment Situation	.13**	1.00						
3. Caregiver Highest Degree	.17**	.16**	1.00					
4. Child Age	.54**	.14**	.06*	1.00				
5. Housing Insecurity (wave 1)	-.18**	-.13**	-.05*	-.15**	1.00			
6. Social Support (wave 1)	-.09**	.06*	.03	-.05	-.06*	1.00		
7. Major Depression (wave 2)	.04	-.07**	.07*	.07*	-.02	-.17**	1.00	
8. Parenting Practices (wave 3)	.05	.01	.07**	.09**	-.03	-.13**	.18**	1.00
Mean	1.33	3.77	2.32	2.11	.23	3.77	.28	.63
SD	.63	2.39	1.88	1.11	.42	1.01	.45	.23

Note: Covariates measured at baseline, N = 1,319-1,418, **$p<.01$, *$p<.05$

Regression Models

Regression analyses were conducted with five models prior to running a final mediation model. Each of the remaining covariates, caregiver's employment status, caregiver's highest degree, child age, and caregiver's age, were added one at a time to establish best model fit. Models were as follows: (1) fully constrained, (2) caregiver's employment status, caregiver's highest degree, and child age constrained, (3) caregiver's employment status and caregiver's highest degree constrained, (4) caregiver's employment status constrained, and (5) unconstrained. The difference test for lack of invariance was significant ($\Delta \chi^2 = 26.77$, $df = 16$, $p = .04$) between Model 1 (fully constrained) and Model 2, which was not significantly different from the remaining models including the unconstrained model. Model 5 (unconstrained) was determined to have the best fit and was used in final analyses to examine study hypotheses.

Hypothesis Testing

Presented in Table 3 and Figure 3 are the parameter estimates, standard errors, and significance results for Model 5. Mplus removed one case during analyses for missing covariates, resulting in a sample of 1,417 cases for analysis. A single multiple mediation analysis was used to investigate the hypothesis that depression and social support mediate the relationship between housing insecurity and negative parenting practices. Chi-Square Model fit was non-significant ($\chi^2 = 9.29$, $df = 8$, $p = .32$), indicating good model fit. Additional estimators also indicated good fit (CFI = .97, TLI = .90, RMSEA = .01, RMSEA 90% C.I. = .00 .03, WRMR = .51).

Results did not support Hypothesis I, as housing insecurity did not have a significant direct effect on negative parenting practices ($b = .00$, $p = .88$). The total indirect effect from housing insecurity to negative parenting practices was non-significant ($b = .01$, $p = .28$). The

indirect effect of housing insecurity to negative parenting practices through depression was non-significant ($b = .01$, $p = .52$), which did not support Hypothesis II. Hypothesis III was marginally supported, as the specific indirect effect of housing insecurity to negative parenting practices through social support and then depression approached significance ($b = .00$, $p = .06$). Overall, these results do not support the proposed study meditation hypotheses. Housing insecurity was not found to predict negative parenting practices, and social support and depression did not mediate the relation between housing insecurity and negative parenting practices.

In terms of other variables included in the model, results indicated that housing insecurity had a significant negative effect on social support ($b = -.28$, $p = .01$) and social support had a significant negative direct effect on depression ($b = -.24$, $p < .000$). Furthermore, depression had a significant positive effect on negative parenting practices ($b = .06$, $p < .000$). For covariates, caregiver age at Time 1 had a significant negative effect ($b = -.02$, $p = .00$) on negative parenting practices. However, at Time 2, caregiver age had a significant positive effect ($b = .02$, $p = .03$) on negative parenting practices. For every 1 SD increase in age at Time 1, there was a .02 SD decrease in negative parenting practices scores; however, caregiver age at Time 2 was associated with a .02 SD increase in negative parenting practices scores.

Table 3

Unstandardized Path Coefficients for Unconstrained Mediation Model

Predictor	Social Support W1 as outcome b (SE)	Depression W2 as outcome b (SE)	Negative Parenting Practices W3 as outcome b (SE)
Direct Effects			
Caregiver Age W1	-0.00 (0.04)		-0.02 (0.01)*
Employment Status W1	0.21 (0.11)+		-0.02 (0.03)
Highest Degree W1	-0.09 (0.16)		0.02 (0.04)
Child Age W1	-0.14 (0.12)		-0.04 (0.03)
Housing Insecurity W1	-0.28 (0.12)**	0.12 (0.16)	0.00 (0.03)
Social Support W1		-0.24 (0.06)***	-0.01 (0.01)
Caregiver Age W2		-0.06 (0.11)	0.02 (0.01)*
Employment Status W2		-0.12 (0.16)	0.00 (0.03)
Highest Degree W2		-0.11 (0.23)	0.01 (0.04)
Child Age W2		-0.21 (0.15)	0.05 (0.03)+
Depression W2			0.06 (0.01)***
Total and Indirect Effects			
Housing Insecurity W1→Depression W2→Negative Parenting Practices W3			0.01 (0.01)
Housing Insecurity W1→Social Support W1→Negative Parenting Practices W3			0.00 (0.00)
Housing Insecurity W1→Social Support W1→Depression W2→Negative Parenting Practices W3			0.00 (0.00)+
Total Effect			0.02 (0.03)
Total Indirect Effect			0.01 (0.01)

Note: W1 = Wave 1, W2 = Wave 2, W3 = Wave3. ***$p<.001$, **$p<.01$, *$p<.05$, +$p<.1$

Figure 3: Housing Insecurity and Negative Parenting Practices Model 5
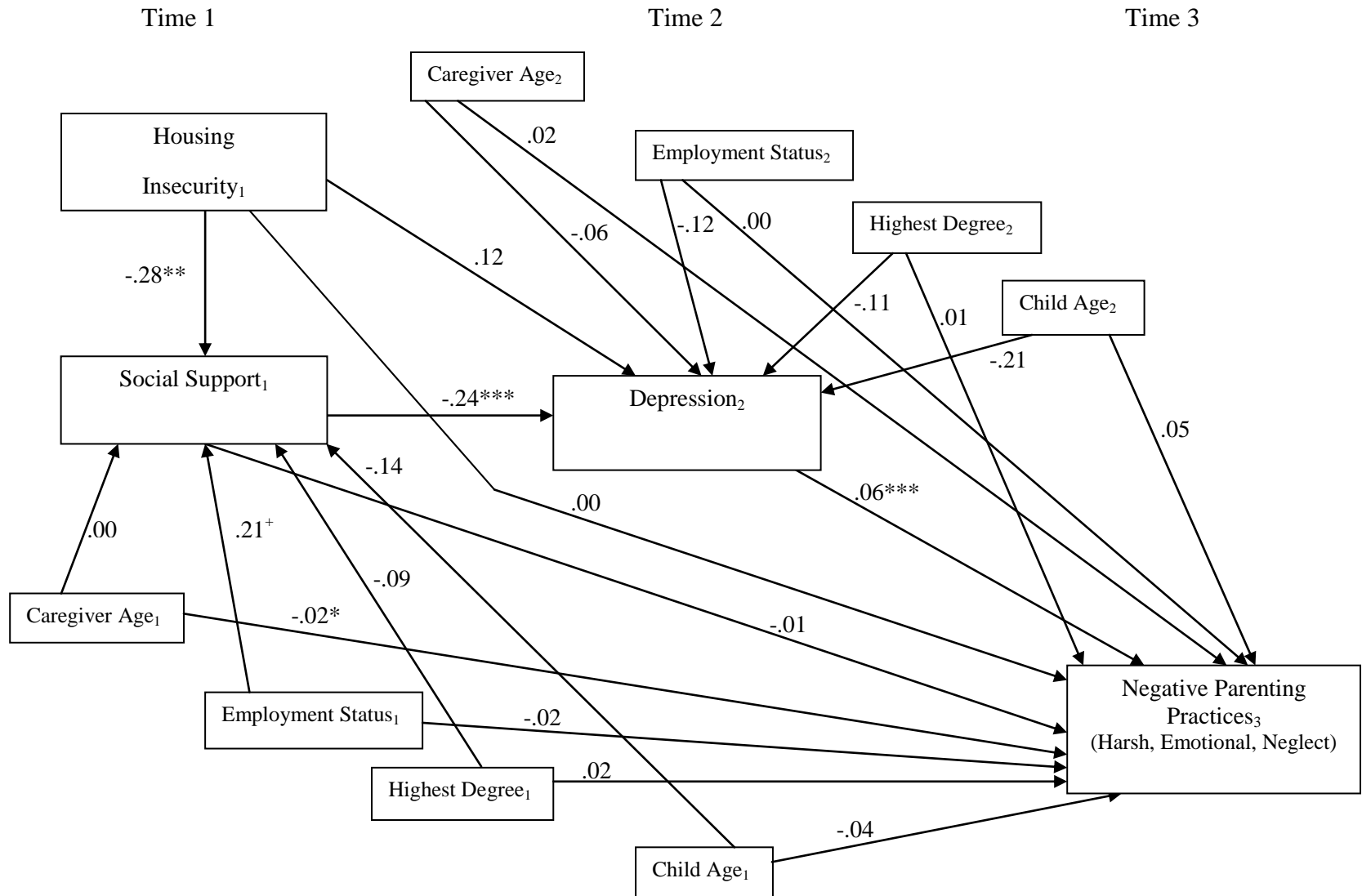
Note: $_1$ = Wave 1, $_2$ = Wave 2, $_3$ = Wave3.   ***$p<.001$, **$p<.01$, *$p<.05$, $^+p<.1$

Supplemental Analyses

Two additional models were also analyzed in accordance with evolving methodology for mediation which posits that mediation may still occur even when direct effects are nonsignificant (Hayes, 2009). These analyses were run to determine if a significant indirect effect of depression (hypothesis II), as well as for social support, exist when analyzed independently of the multiple mediation model (hypothesis III) and controlling for each other. Indirect effects were analyzed separately (i.e. modeled in Mplus one at a time), as Mplus analyzes all indirect effects when running a full model with multiple mediators. In initial study analyses hypotheses II and III were included in Mplus syntax at the same time under the "model" command and analyzed together. Additional models included the following: (1) the meditational relation between housing security and negative parenting practices through depression, and (2) the meditational relation between housing insecurity and negative parenting practices through social support. Each model was analyzed with study covariates unconstrained: caregiver age, child age, employment status, and caregiver highest degree.

Depression as a mediator. The model for the meditational relation between housing insecurity and negative parenting practices through depression was assessed separately. The Chi-Square value was nonsignificant ($\chi^2 = 11.10$, $df = 9$, $p = .27$), indicating good fit. Additional estimators (CFI = .95, TLI = .89, RMSEA = .01, RMSEA 90% C.I. = .00 .03, WRMR = .67) also indicated good model fit. Caregiver age at Time 1 had a significant negative direct effect on depression ($b = -.14$, $p = .03$) and caregiver age at Time 2 had a significant positive direct effect on negative parenting practices ($b = .02$, $p = .00$). For every 1 SD increase in caregiver age at Time 1, there was a .80 increase in depression scores and every 1 SD increase in caregiver age at Time 2 was associated with a .44 increase in negative parenting practices score. The total

indirect effect between housing security and negative parenting practices through depression was nonsignificant ($b = .01$, $p = .53$). However, the direct effect of depression on negative parenting practices was significant ($b = .07$, $p = .00$).

Social support as a mediator. A model for the meditational relation between housing insecurity and negative parenting practices through social support was also assessed separately. The Chi-Square value was non-significant ($\chi^2 = .54$, $df = 1$, $p = .46$), indicating good fit. Additional estimators (CFI = 1.00, TLI = 1.13, RMSEA = .00, RMSEA 90% C.I. = .00 .06, SRMR = .00) also indicated good model fit. The covariate for caregiver current employment situation had a significant positive direct effect ($b = .14$, $p = .01$) on social support, and child age had a significant positive direct effect ($b = .01$, $p = .02$) on negative parenting practices. For every 1 SD increase in caregiver current employment status scores at Time 1, there was a .07 SD increase in social support scores, and every 1 SD increase in child age at Time 1 was associated with a .09 increase in negative parenting practices scores. The indirect effect between housing security and negative parenting practices through social support was also significant ($b = .01$, $p = .02$). Because Mplus used the Robust Maximum Likelihood (MLR) estimator for modeling the indirect effect of social support and the WLSMV estimator for modeling the indirect effect of the categorical variable of depression, the DIFFTEST option was not available to compare fit between supplemental models.

Discussion

The current study used a nationally representative dataset of families involved in child welfare to assess the longitudinal relation between housing insecurity and negative parenting practices, as well as to examine the impact of socio-emotional mediators. Housing insecurity attempts to capture the dual levels of housing unaffordability and instability which pose potential risks to the parent-child relationship; however, the mechanisms and impact on parenting are unclear. In addition, the literature on housing insecurity is limited, particularly for families with young children who remain a vulnerable population and present considerable challenges for access to research. The integration of the determinants of parenting model (Belsky, 1984) and the family stress model (Conger et al., 1992; Warren & Font, 2015) provided the foundation the present study model.

The most recent Annual Homeless Assessment Report (AHAR) estimates that 33% of those experiencing homelessness are represented by families (Henry, Watt, Rosenthal, & Shivja, 2017). For the present study of families involved in child welfare, approximately 24% were considered housing insecure and demonstrated exacerbated risks in several areas. In terms of composition, the current sample of housing insecure families was predominantly women (96%), caregiver mean age 27 years old, child mean age approximately 3.5 years old, mean number of children was three, 82.7% unmarried, 67.3% unemployed, and roughly 87 were from urban areas. In addition, African Americans were disproportionately represented in the current study sample with estimates of approximately 30%, in the housing insecure group. Similarly, African Americans represented 41% of individuals who identified as homeless in 2017 (Henry et al., 2017). Historical and systemic marginalizing factors likely contribute to the disproportionate representation of African Americans among populations of families experiencing homelessness

and subsequent child welfare involvement (Culhane & Metraux, 1999; Haber & Toro, 2004; Shinn, 2007).

In comparison to the full NSCAW II sample of child welfare involved families (specifically in-home parents) the current subsample of housing insecure families had higher rates in all of the following categories: rates of unemployment (34%), female caregivers (90%), unmarried (69.5%), less than high school diploma (28.8%), and percentage of Black caregivers (19%). In addition, compared to different samples of families involved in child welfare, like the Family Unification Program (FUP) who also identified inadequate housing as a risk factor, similar composition to the current study sample of housing insecure families was found: single (94.7%), women (92.7), primarily African American (66.7%), caregiver mean age (31.4 years), mean number of children (2.7), and less than a high school diploma (36%; Fowler & Schoeny, 2015). Another sample from the Family Composition Study (FCS) was older (mean age 34.3) than the current housing insecure caregivers; however, FCS caregivers had a similar mean number of children (3.4) and shared disproportionate estimates (48%) of Black caregivers (Barrow & Lewinski, 2009). Overall, the current subsample of families involved in child welfare displayed similar patterns of risk in the areas of education, unemployment, race, and single female parenting to other child welfare samples; however, rates appear magnified for families experiencing housing insecurity.

The first study hypothesis that housing insecurity at Time 1 would be significantly associated with negative parenting practices at Time 3 was not supported. Housing insecurity did not significantly predict negative parenting practices. This nonsignificant direct association could be due to the absence of residential mobility as an indicator for housing insecurity. Although housing unaffordability and instability both represent housing insecurity, each may impact

maltreatment in different ways. Some research has demonstrated indirect associations between housing unaffordability and maltreatment, while direct associations for instability have been found (Warren & Font, 2015). In addition, residential mobility has been documented as a key factor in understanding housing instability (Farrell, Dibble, Randall, & Britner, 2017; Rollins et al., 2012; Suglia, Duarte, & Sandel, 2011; Warren & Font, 2015). Demonstrating a direct association between housing insecurity, represented primarily by unaffordability, and maltreatment may be more difficult as psychological impairment may likely occur before behavior is impacted. Whereas housing instability, particularly residential mobility, more readily impacts on a parent's ability to control their environment thus may create a more direct connection to behavioral changes. Parental neglect reflects an inability to provide a range of needs from food, clothing, medical care, safe supervision, as well as shelter for a child (Child Welfare Information Gateway, 2016). Parents report that disruptions in routines and rituals experienced during residential mobility, especially for families moving to doubled-up living arrangements, create challenges for maintaining usual parenting practices and reducing outside influences (Mayberry et al., 2014).

Given that a single mediation model approach was used in Mplus (Preacher & Hayes, 2008), specific indirect hypotheses were analyzed together. Findings for the relation between housing insecurity and negative parenting practices as mediated by depression (hypothesis II) were not supported in initial or supplemental analyses. Although the relation between housing insecurity and negative parenting practices through depression was non-significant in initial and supplemental analyses, depression did have a positive significant direct effect on negative parenting practices. These findings suggest that additional exploration is needed to understand how the association between housing insecurity and stressful indicators impact negative

parenting practices. Some evidence suggest that depression may be more strongly associated with the specific indicator of housing instability when used as a mechanism to explain negative parenting practices (Park et., 2015), while indices of parenting stress, as opposed to depression, may provide strong associations with indicators of both housing instability and unaffordability when used as a mediator to explain neglect or abuse (Warren & Font, 2015). Additionally, the type of social support, emotional or tangible, impacting on depression may be a factor. For example, individuals may be more receptive and willing to give tangible means of support, rather than support that challenges maladaptive behaviors (Thompson, 2015). As a result, mothers may be receiving more support related to securing stable housing, which may impact a diagnosis of depression, but not necessarily their negative parenting practices. Thus parents may report feeling less depressed while continuing to engage in maladaptive behaviors.

The relation between housing insecurity and negative parenting practices as mediated by social support and depression (hypothesis III) was also not supported; however, results did trend toward significance which suggests that further exploration is needed. Growing research supports a relation between housing insecurity and child maltreatment, along with the impact of psycho-social factors (Park et al., 2015; Warren & Font, 2015). As previously stated residential mobility as an indicator for housing insecurity, specifically instability, may play an important role in establishing a connection with maltreatment. Thus, the inability to include residential mobility may have impacted study effects. The current study offers marginal results for previous findings; however, further research is needed to support the above hypothesis.

Results showed significant direct effects of housing insecurity on social support, social support on depression, and depression on negative parenting practices. In addition, caregiver age had a significant negative and positive direct effect on negative parenting practices, at Time 1

and 2 respectively. Housing insecurity was significantly negatively associated with social

support, indicating families in the housing insecure group report their networks as less supportive

and suggest that breakdowns in social dynamics may be more apparent during this time. These

findings are consistent with previous research which suggests that families experiencing housing

insecurity have less communication, fewer members, and more conflicted relationships within

social networks (Bassuk et al., 1997, and Letiecq et al., 1998). In addition, slightly more than

seventy five percent of the current study sample were single (e.g. separated, divorced, widowed,

never married), and single mothers have been found to be more likely to report lower levels of

social support (Cairney, Boyle, Offord, & Racine, 2003).

Social support was also negatively associated with depression, and depression was

positively associated with negative parenting practices, which may be particularly relevant if

support for families experiencing housing insecurity was centered on housing at the time of

investigation. As previously highlighted, the impact of tangible social support on diagnoses of

depression may not necessarily translate to changes in negative parenting practices. The current

study measure of social support focused on caregiver's perceptions of received emotional social

support (e.g. opportunities to talk about money, advice related to important life decisions);

however, this measure did not specifically capture received tangible social support. Previous

research has shown that the quality (e.g. reliability) of social support is meaningful when

mothers evaluate what is considered useful housing support (Goodman, 1991; Bassuk et al.,

1997; Letiecq et al., 1998). Specific characteristics of social support as it relates to housing may

also need to be explored in order to determine how social support impacts depression and

subsequently negative parenting practices.

Supplemental analyses revealed the relation between housing insecurity and negative parenting practices through social support was significant despite the absence of a main effect between housing insecurity and negative parenting practices. Previous research is mixed about the direct role of social support on parental functioning (Belsky, 1984; Lee et al., 2011; Salazar et al., 2011; Simmons et al., 1993). Furthermore Belsky (1984) argues that the marital relationship has the greatest potential positive or negative impact on parental functioning; however, acknowledges that for single mothers, general social support may become more salient in relation to parental functioning. While marriage may be the primary support for two-parent families, general social support appears to be the main source of support for single mothers.

During supplemental analyses for the indirect relation of social support, the covariate of caregiver current employment was found to be significantly positively correlated with social support, where increased scores of social support indicated a greater likelihood to be employed. Similarly previous research has found that perceived social support, in particular sense of belonging, predicts homeless women's efficacy to secure employment (Brown & Mueller, 2014). In contrast to previous research, child age at Time 1 was found to be significantly positively correlated with negative parenting practices. Typically, the effects of maltreatment have been found more in younger children and then the effects of neglectful parenting disappear in adolescence (Cutts et al., 2011; Mustillo et al., 2011). It is possible that within a certain age range among younger children age increases along with the effects of maltreatment before declining as early adolescence begins. The findings from this study suggest additional research is needed to better understand maltreatment as children grow older and experience housing insecurity.

Limitations

Several limitations of the present study should be considered. The present study sought to use five indicators to form a composite variable for housing insecurity; however complete missing data at Time 1 for residential mobility limited the formation of the composite variable for housing insecurity. Residential mobility has been found to be specifically associated with housing instability and evidence suggests that both components of housing insecurity may be associated with different aspects of maltreatment (Park et al., 2015; Warren & Font, 2015). The inclusion of multiple indicators of housing insecurity is a strength of the current study; however, additional indicators and the isolation of unaffordability and instability indicators may provide a clearer opportunity to understand the impact of housing insecurity on negative parenting practices, as it relates to child maltreatment.

In addition, due to inadequate data at Time 2 for social support, analyses were run using social support data from Time 1. As a result, not all mediators were examined at Time 2. Findings should be interpreted with caution in terms of longitudinal inferences. While all caregivers remained the same at all time points, housing insecurity and social support were both analyzed at baseline. Previous research recommends at least three time points for a fully longitudinal model (Selig & Preacher, 2009).

Lastly, given that secondary data was utilized, caregiver depression was only available as a dichotomous variable. While interpretation of data may be simplified with binary variables, several problems may also arise. Loss of data was one problem, specifically since only raw scores for those who answered positively to preliminary stem questions were computed. In addition, there also is an assumption of an underlying dichotomy of depression which may be contrary to current trends of dimensional disorders (American Psychiatric Association, 2013).

Furthermore, power may have been reduced and control variables may still have confounding

influence (Altman & Royston, 2006). The inclusion of a categorical also mediator precluded the

use of bootstrapping methodology, as recommended in use with multiple mediation models

(Preacher & Hayes, 2008).

Implications and Future Directions

This study sought to determine how housing insecurity combined with associated risk

factors to impact on negative parenting practices for child welfare involved families in order to

inform policy and prevention services for at risk families. Findings highlight the importance of

social support for housing insecure families and the role child welfare agencies can play in

providing and improving social support. As agencies begin to prioritize stable housing,

recommendations for agencies include appointing a designated person(s) for housing resources

and community development: specifically nurturing relationships with public housing

authorities, attending and participating in continuum of care meetings, using and sharing

administrative data to improve understanding of the needs of families experiencing housing

insecurity, case management, and partnering with housing providers-landlords (U.S. Department

of Health and Human Services, 2017). Programs such as the FUP, which provides housing

choice vouchers (HCV) to families in jeopardy of losing their children and those in need of

reunification specifically related to inadequate housing, would benefit from better partnerships

with housing providers and landlords (Rog, Gilbert-Mongelli, & Lundy, 1998; Fowler & Schoeny,

2015). Families eligible for FUP receive direct access to financial assistance for housing but

remain in need of support from child welfare agencies in order to utilize HCV within the

required time period. Together with case management provision as an incentive for housing

providers and landlords, specific support around healthy relationships with landlords should also

be provided to support families in securing and maintaining stable housing.

For families experiencing housing insecurity there continues to be a need for

interventions aimed at rebuilding and strengthening social support networks in order to curtail

the impact of negative parenting practices. Interventions, such as the Multiple Family Group

(MFG) weekend retreat, that focus on activities that are built around family-functioning-

cohesion, structure, and beliefs have been used with families (caregivers and children) in the

midst of homelessness, as well as with a history of residential mobility, and has shown

improvements in family cohesion, parental stress, and parent's perceptions of children's behavior

(Davey & Abell, 2004). While secure housing is undoubtedly a priority for housing insecure

families, it is also necessary to provide forms of support that can improve problems in relational

patterns between parent-child dyads that simultaneously experience housing problems.

Although research focused on specifically on caregivers and children are necessary to

understand the impact of housing insecurity and maltreatment on family systems, the scope of

research also needs to be expanded to better understand the impact of broader neighborhood

concepts of social support. For example, social cohesion, which is defined by closeness among

neighborhood residents, has been shown to be indirectly associated with neglect and abuse

through maternal depression (Barnhart & Maguire-Jack, 2016). In addition, communities of high

poverty concentration, defined as percent of the population living below the federal poverty

level, have also been shown to have increased rates of child abuse fatalities, in tandem with

disproportionate representation among African Americans (Farrell et al., 2017). Altogether, these

findings support targeted interventions, and increased allocation of resources to organizations

such as child welfare, in high risk communities which include families experiencing housing

insecurity. Furthermore, increased risks for child maltreatment and abuse also have implications

in adulthood. Recent research suggests that those who report greater experiences of emotional

abuse in childhood have higher odds of experiencing housing insecurity in adulthood (Curry,

2017). Community level interventions that acknowledge the interplay and broad impact of

economic hardship stand to benefit individuals experiencing housing insecurity in childhood and

as adults.

Lastly, future research with families experiencing housing insecurity may benefit from

using continuous scales of measurement for assessing concepts of mental health when available,

particularly given the trend toward dimensional approach to psychiatric diagnosis (American

Psychiatric Association, 2013). Causation between health risks and inadequate housing problems

is difficult to determine and is further complicated by the lack of a standard measure for housing

insecurity (Newman, 2008). Given that a standardized measurement of the complex and long-

term pattern of housing insecurity has not been well established and continues to pose challenges

for investigation, future research should focus developing a standard measure for housing

insecurity.

Conclusion

The current study examined the longitudinal relation between housing insecurity and

negative parenting practices, as mediated by depression and social support. While a direct rela-

tion between housing insecurity and negative parenting practices was not supported, results did

trend toward significance and evidence of an indirect effect of housing insecurity on negative

parenting practices through social support was found during supplemental analyses. Both hous-

ing insecurity and negative parenting practices include multiple levels, which need further clari-

fication through continued exploration and increasingly rigorous methodology.

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