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Parenting stress among child welfare involved families: Differences by child placement

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ABSTRACT

The intersection of parenting stress and maltreatment underscores the importance of understanding the factors associated with parenting stress among child welfare involved families. This study takes advantage of a statewide survey of child welfare involved families to examine parent and child characteristics and concrete resources, in relation to parenting stress. Separate multivariate analyses were conducted by placement status given the difference in day-to-day parenting responsibilities for families receiving in-home supervision compared to those whose children are in out-of-home care. Across both groups, parenting stress was predicted by child mental health, a finding with critical implications for intervention to this vulnerable group of families. Parent mental health also predicted parenting stress for the in-home group and food insecurity predicted parenting stress in the out-of-home group. Findings confirm that stress varies by context and that a multi-dimensional framework, considering both psychosocial and concrete resources, is required to capture contributors to parenting stress.
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1. Introduction

Parenting has many rewards, but even under optimal conditions, it can be stressful. The numerous demands of caregiving can lead to emotional and physical fatigue, resulting in parent–child relationship strain (Deater-Deckard, 2004). Parenting stress has long been an area of interest to researchers concerned with child well-being (Abidin, 1992; Deater-Deckard, 2004). When parenting stress is high, the likelihood of punitive parenting (Pinderhughes, Dodge, Bates, Pettit, & Zelli, 2000; Webster-Stratton, 1990) and child maltreatment increases (Black, Heyman, & Smith Slep, 2001; Haskett, Smith Scott, Grant, Ward, & Robinson, 2003; Rodriguez, 2010), with implications for child well-being (Deater-Deckard, 2004). The intersection of parenting stress and maltreatment underscores the importance of understanding the factors associated with parenting stress among child welfare involved families, both to inform secondary prevention efforts and as an opportunity for targeted intervention with these vulnerable families.

Conceptually, parenting stress arises from the interaction of parent, child, and contextual factors (Deater-Deckard, 2004), arguing for research that is multi-dimensional and accounts for the unique circumstances surrounding child welfare involvement. The purpose of the study presented here is to examine parent and child characteristics and contextual factors such as parent resources, in relation to parenting stress in a statewide child welfare population. Recognizing that parenting stress can be affected by whether or not the parent has full-time responsibility for the care of the child, we examine stress separately for families with children in-home but under agency supervision and those whose children were in out-of-home placement. While there is a substantial body of literature examining parenting stress, there is a gap in our understanding of this phenomenon among families actively involved in the child welfare system. This study adds to the child welfare literature by bringing a multi-dimensional framework to the study of parenting stress and by examining possible differences by child placement status. Identifying predictors by placement status further reveals several points of intervention that may be unique to child welfare involved families given that parenting contexts can vary.

2. Parenting stress and child maltreatment

Researchers have linked high levels of parenting stress with an increased risk of child maltreatment (Curenton, McWey, & Bolen, 2009; El-Kamary et al., 2004; Éthier, Lacharité, & Couture, 1995). Due to the innate stress involved in parenting, all parents are subject to varying degrees of related stress (Abidin, 1992; Deater-Deckard, 2004). Although not all those with high levels of parenting stress maltreat their children, parenting stress has been linked to aspects of problematic parenting such as harsh parenting (Webster-Stratton, 1990), severe physical disciplinary practices (Pinderhughes et al., 2000), low parental warmth (Belsky, 1984; Rodgers, 1993), and negative and controlling behavior (Bigras, LaFreniere, & Dumas, 1996). Increased parenting stress can contribute to child behavior problems or can further exacerbate existing behavior problems (Margalit & Kleitman, 2006), which presents additional risk for maltreatment.

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3. Theoretical perspective

Parenting stress, the dependent variable of interest, theoretically is a consequence of the cumulative impact of day-to-day child rearing stressors (Crnic & Greenberg, 1990; Deater-Deckard, 2004), in the context of social, material, and individual resources (Belsky, 1984; Bronfenbrenner, 1979; Garbarino, 1977). Daily stressors result from devoting significant time, physical and emotional energy, and considerable effort enacting the varied tasks necessary in the parenting role. While daily tasks considered alone may not elicit high levels of stress, researchers theorize that cumulative exposure can lead to substantial parenting stress (Crnic & Greenberg, 1990). This manifests itself as caregiver stress and as relationship strain between a parent and a child (see Deater-Deckard, 2004 for a full overview). Taken together, the cumulative tasks and resource demands of parenting exert pressure in the form of *losses* on parents — for example, loss of time, energy, and control over one's self and life (Berry & Jones, 1995).

Broader contextual factors, defined as social, material, and individual resources, are conceptualized as contributing to or buffering parenting stress. Research shows that social resources such as the presence of a partner can reduce parenting stress, while increases in the number of children in the family can produce additional stress (Cain & Combs-Orme, 2005). We draw on family economic stress frameworks (Barnett, 2008) to understand the role of material resources in parenting stress. Theoretically, economic disadvantage can lead to parental distress, which in turn can negatively influence parenting practices (Barnett, 2008; Gershoff, Aber, Raver, & Lennon, 2007). Research supports this theoretical pathway across racially diverse families (Barnett, 2008), which is important in child welfare given the disproportionate representation of families of color in this system (Hill, 2006). In our own research with child welfare involved families we have found that economic hardship is frequently experienced as housing insecurity and food instability (Marcenko, Lyons, & Courtney, 2011). We conceptualize individual resources as the presence or absence of parent chronic risk factors that can interfere with parenting and create parenting stress. These factors include parent mental health (Gray, Edwards, O'Callaghan, Cuskelly, & Gibbons, 2013), substance use (Kelley, 1992), and intimate partner violence (IPV; Kalil, Tolman, Rosen, & Gruber, 2003). Child mental health is also seen as an individual resource in our model. A parent perceived child mental health problem is a strong predictor of parenting stress (McPherson, Lewis, Lynn, Haskett, & Behrend, 2009).

Due to the conceptualization of parenting stress as the cumulative impact of day-to-day parenting *and* given that child welfare involved families comprise the population of concern, our analysis must account for the special circumstances this poses for families. When children are removed from their parent's care, day-to-day parenting responsibility is reduced and parent/child interactions are altered. Even with this change, they remain parents and continue to experience the emotional aspects of parenting including deep concern for their children's wellbeing (Gerring, Kemp, & Marcenko, 2008). When children remain in the home, but under the supervision of the child welfare agency, daily parenting responsibility continues with the added pressure of agency scrutiny. Given these unique contexts, this study examines parenting stress separately — for families whose children are placed outside of the home and for those whose children remain in the home. We build on the parenting stress literature, ecological models, and family economic stress theory to examine potential predictors of parenting stress including social, material, and individual resources.

4. Literature review

4.1. Social resources/family structure

Single parenting and family size are the family structure factors most often associated with parenting stress (Cain & Combs-Orme, 2005; Cooper, McLanahan, Meadows, & Brooks-Gunn, 2009; Taylor, Washington, Artinian, & Lichtenberg, 2007). The majority of families who come to the attention of the child welfare system are parenting alone (Marcenko et al., 2011), putting them at high-risk for parenting stress. As a consequence of limited social resources, these solo parents must manage primary parenting responsibilities without the support of additional adult help in the household (Cooper et al., 2009). Family size, or number of children in the household, can attenuate family and parent resources and thereby increase parenting stress. In an examination of the relationship among parent stress, health, childcare characteristics, and social support, Taylor et al. (2007) found that as number of children in the home increased so did levels of parenting stress.

Issues of poverty may further complicate family structure characteristics and their impact on parenting stress (Black et al., 2001; Pears & Capaldi, 2001). To understand the relative impact of income and social support on parenting stress, Cain and Combs-Orme (2005) conducted a study of 103 African American families. Examining four family configurations (mother and baby; mother, baby, and grandmother; mother, baby, and unmarried partner; and mother, baby, and married partner), they found that as total family income decreased, parental distress increased with no impact from family configuration on parenting stress. Similarly, a study comparing White and non-White families with medically fragile children found that for White families increased social support, and child developmental indicators were correlated with decreased parenting stress, but for families of color, parenting stress was negatively correlated only with income (McDowell, Saylor, Taylor, Boyce, & Stokes, 1995). These results support the hypothesis that for families of color income is a stronger correlate of parent stress than additional adult support or child disability.

4.2. Material resources/economic hardship

Poverty is a complex, and often intergenerational, phenomenon that may exert significant influence on parenting stress. Evidence has suggested that poverty, as measured by income, correlates with parenting stress (Cain & Combs-Orme, 2005; McDowell et al., 1995). However, income alone may insufficiently capture the impact lack of resources has on parenting. For instance, Gershoff et al. (2007) found that material hardship (food insecurity, housing instability, inadequate medical care, and duration of financial trouble) increased parenting stress, which decreased positive parenting behavior. They suggest that a material hardship framework better facilitates an understanding of the influence of economic disadvantage on parenting stress. This conceptualization is aligned with family stress models which generally identify economic disadvantage as causing parent distress which has direct implications for parenting strategies and parenting stress (for complete overview see Barnett, 2008). The interconnected relationship between family structure and poverty is evident, particularly for families involved in the child welfare system as parents struggle to parent in an environment of diminished financial and social resources (Marcenko et al., 2011).

4.3. Individual resources/chronic parent risk factors

Several chronic psychosocial factors, including parent mental health, IPV, and substance abuse, put parents at-risk for child maltreatment as well as elevated levels of parenting stress. The association between depression and parenting stress has been broadly confirmed in the literature, particularly in the postnatal period (Gray et al., 2013; Leigh & Milgrom, 2008) and among parents caring for children with disabilities (Anastopoulos, Guevremont, Shelton, & DuPaul, 1992). Findings from one of the few studies that compared mothers with and without a history of maltreating their children indicated that the maltreating mothers' had significantly higher levels of both psychological distress and parenting stress compared with mothers without a history of maltreatment (McPherson et al., 2009). Mother's psychological distress predicted parenting stress only for the maltreatment group (McPherson et al., 2009).

Research into the role of IPV in parenting stress has produced mixed results. Some studies report increased symptoms of parenting stress in abusive relationships when compared to non-abusive relationships (Kalil et al., 2003; Levendosky & Graham-Bermann, 1998), while other studies indicate no effect of physical or emotional partner abuse on parenting stress (Sullivan, Nguyen, Allen, Bybee, & Juras, 2000). Providing evidence for the complicated relationship among chronic risk factors, Renner (2009) found that depressive symptoms partially mediated the link between IPV and later parenting stress.

Maternal substance use is widely acknowledged as a risk factor for child maltreatment (e.g. Smith, Johnson, Pears, Fisher, & DeGarmo, 2007); however, few studies have explored parental substance use and parenting stress. In a notable exception, Kelley (1992) explored the relationship between prenatal substance use, parenting stress, and maltreatment for mothers with and without drug exposed infants. The results indicate that mothers who used drugs during pregnancy had the highest levels of parenting stress and were more likely to have their children placed in out-of-home care. In a study of substance abusing mothers, Nair, Schuler, Black, Kettinger, and Harrington (2003) found elevated levels of parenting stress among those with five or more risk factors such as depression, IPV, homelessness, and single parenting. This finding points to the cumulative impact of multiple psychosocial risk factors.

4.4. Individual resources/child mental health

Numerous studies have confirmed that child mental health disorders, particularly externalizing conditions, increase parenting stress (Rosman, McCarthy, & Woolverton, 2001; Solem, Christophersen, & Martinussen, 2011). There is some debate about whether *actual* child behavior or parent *perception* of child behavior is more important when assessing parenting stress. Some research shows that actual child behavior (measured by teacher report) was associated with higher levels of parenting stress rather than parent perception of behavior (Creasey & Reese, 1996). Other studies have found parenting stress to be unrelated to observed parent–child interactions, and related instead to parent perception (Bigras et al., 1996; McPherson et al., 2009). The relationship between actual and perceived child behavior on stress is complex and likely affected by several factors including type (internalizing vs. externalizing), duration, and severity of symptoms.

5. Methods

5.1. Data

This study uses data from the Washington Statewide Survey of Child Welfare Involved Parents (hereafter referred to as the Parent Survey). The Parent Survey conducted face-to-face interviews with primary caregivers, 18 years and older, with a child welfare case opened for in-home or out-of-home services in the past 30 to 120 days of the interview date ($n = 809$). Interviews were conducted between July and December 2008 providing data regarding the characteristics, needs, and engagement of child welfare involved families in Washington State. The Parent Survey excludes caregivers unable to communicate in English, and caregivers incarcerated or living outside of Washington State at the time of recruitment. The child welfare agency's administrative database was used to select the sample. If two caregivers were identified within a family, the primary caregiver was selected. If a primary caregiver was not indicated, the oldest female caregiver was selected. The overall response rate was 82% (for more details on study design and recruitment procedure, see Marcenko et al., 2011).

Listwise deletion was used to address missing data in the multivariate analyses, resulting in the deletion of 38 cases (4.7% of the total sample). Significance tests were conducted to compare any possible differences between the dropped and retained cases on parenting stress, demographic characteristics, care status, and risk factors. There were no significant differences between the groups. The final sample is 771 cases.

5.1.1. Parent characteristics

Sample descriptive characteristics are reported in Table 1. Of the final sample of 771 primary caregivers, 58% of the families received in-home supervision and 42% had children placed in out-of-home care. Across both groups, approximately 92% of caregivers were female. Parents of the in-home group were significantly older statistically ($M = 33.2$ years vs. 31.9 years) and had higher levels of education. Families were predominantly low income, with 55% of out-of-home families and 36% of in-home families making less than $10,000 a year. Across both groups, the majority of families were White (62%), with the second largest group being Mixed Race (in-home = 16%; out-of-home = 18%). Out-of-home caregivers were more likely to be parenting alone when compared to the in-home group (72% vs. 63%).

5.1.2. Child characteristics

There were a total of 2137 children 18 years old and under with 59% being in out-of-home care. Mean number of children in the home was not significantly different between the two groups, with families having on average three children. The mean age of children in each family was significantly different between groups (in-home $M = 8.2$ years; out-of-home $M = 7.3$ years). Young children (ages 0–3) were more likely to be placed in out of home care (65% vs. 35%, $\chi^2 = 16.67$, $p < .001$), a finding consistent with prior research (Wulczyn, Ernst, & Fisher, 2011). In early analyses, child age did not significantly contribute to the model. Having young children in the home was highly correlated with younger parent age, $r = .60$, $p < .000$. For these reasons, child age was not included in the final analysis. Parent's identification of child mental health problems was high, being identified in nearly two thirds of all families across groups.

5.2. Measures

The survey included assessments of demographic information, child information, household characteristics, parent mental health and substance abuse, IPV, and financial hardship.

Table 1
Descriptive statistics, by child placement status.

Family characteristics	In-home ($n = 345$)		Out-of-home ($n = 464$)	
	Mean or %	(SD)	Mean or %	(SD)
Parent age**	33.15	(9.77)	31.89	(9.59)
Race				
White	62		62	
African American	6		5	
American Indian/Alaskan Native	6		7	
Asian American, Pacific Islander	3		1	
Hispanic, Latino	6		5	
Mixed race, more than one race	16		18	
Education*				
Less than high school	24		34	
High school/GED	29		27	
Greater than high school	47		40	
Lone parent**	63		72	
Gross household income less than $10,000/year*	36		55	
Unemployed*	63		71	
Housing instability within past year				
Homeless, evicted, or not enough money for rent**	52		59	
Food insecurity within past year				
Not enough money for food	32		30	
Total number of children	2.81	(1.61)	3.06	(1.69)
Mean age of children**	8.19	(6.40)	7.25	(5.78)
Families with at least one child with a mental health concern	67		66	

* $p < .05$.
** $p < .001$.

5.2.1. Demographic and household characteristics

Demographic information was collected on primary caregivers, including gender, race, age, highest level of educational attainment, employment, income, current living situation, and total number of children in their family. Caregivers were allowed multiple responses to the question on race/ethnicity. In order to create a single race variable, we coded respondents based on expected experiences in the child welfare system. Thus, caregivers were coded as White if that was their only response. If they reported more than one race, they were coded Native American regardless of other responses, followed by African American and Latino. The remaining caregivers were coded as other or mixed race. After initial analysis using a five category race variable (White, African American, Latino, American Indian/Alaska Native (AIAN), and Asian/Pacific Islander (API)), race remained non-significant in relation to the dependent variable, parenting stress, so the decision was made to collapse the categories into three: White, families of color (African American, AIAN, API, and Latino), and mixed race.

The caregiver's highest level of educational attainment was based on self-reported response to one of six categories, which were collapsed into three categories: less than high school graduate or GED, high school graduate or GED, and greater than high school (some college, technical training, or college degree). Partner status included three possible responses: single, never married; married or in a committed relationship; and separated, divorced, or widowed. An indicator variable was constructed to identify whether parents were parenting alone or with the support of a partner.

We were able to establish, through the administrative database, whether the respondent had at least one child removed from the home at the time of the interview. We distinguished between those who had at least one child removed (out-of-home) and those who did not have any children removed from the home but received child welfare services (in-home). Analyses were conducted separately based on placement status. We found that parenting stress scores were significantly different between these groups ($p < .001$), with parents whose children were in out-of-home placement having less stress than parents whose children remained in the home.

5.2.2. Chronic risk factors

Caregivers were asked about factors that have been identified as increasing the risk of child maltreatment: mental health disorders, substance use, and IPV.

The Mini-International Neuropsychiatric Interview (MINI) was used to measure mental health and substance abuse disorders. The MINI is a widely used psychiatric structured diagnostic instrument that has been validated against the much longer Structured Clinical Interview for DSM diagnoses (SCID-P), the Composite International Diagnostic Interview for ICD-10 (CIDI), and against expert opinion in a large sample in four European countries (Sheehan et al., 1997). All research staff were trained to administer the instrument by an approved trainer. The instrument yields a lifetime and past 12-month diagnosis of depression, alcohol and other drug use. Indicator variables were constructed from both the 12-month and lifetime diagnoses to indicate the presence of any depressive disorder and any substance use.

Caregivers were also asked six items from the Conflict Tactic Scale 1 (Straus, 1979) to measure IPV. Caregivers were asked about the prevalence and nature of violence in their relationship with their current or most recent partner. Three items pertain to the respondent as victim and three items pertain to the respondent as the perpetrator of aggressive behavior (verbal threats, physical aggression, physical injury). Item examples include "Has your partner grabbed, shaken, slapped or kicked you?" and "Has your partner threatened to do something violent to you?" The CTS1 has well-documented reliability and validity (Straus, 1979). The instrument is designed to be self-administered and Audio CASI was employed given the sensitive nature of the questions. An indicator variable was constructed based on these six questions to measure whether IPV was present in the household.

5.2.3. Economic hardship

Economic hardship was measured using two dichotomous constructs, housing instability and food insecurity. Housing instability was constructed by first creating an index based off of three yes/no responses to three questions; whether they had within the past year 1) been homeless, 2) been evicted, or 3) not had enough money to pay for rent. Then a dichotomous variable was created based on this index — where if respondents answered *no* to all three questions it was coded as 0 and an answer of *yes* to one or more of the three questions was coded as 1. Food insecurity was based on respondents answer to the question about whether they felt like they had enough money for food over the last 12 months. Responses of *yes* were coded as 0 and *no* were coded as 1.

5.2.4. Child mental health

For each of their children, parents were asked whether they had a mental health condition, such as ADHD and depression. If respondents answered *yes* for any of their children, they were coded as 1 and if they answered *no*, they were coded as 0.

5.2.5. Parenting stress

Parenting stress was measured using the Parental Stress Scale (PSS), an 18 item self-report scale (Berry & Jones, 1995). The items on this scale represent both positive (emotional benefits, personal development) and negative feelings (demands on resources, opportunity costs and restrictions) and perceptions of parenthood in terms of how caregivers typically feel about their relationship with their children. Item examples for the PSS are "I am happy in my role as a parent" and "I feel overwhelmed by the responsibility of being a parent." Each item was scored on a five point Likert scale ranging from "*strongly agree*" (1) to "*strongly disagree*" (5), with several items being reverse coded. Higher scores indicate greater stress. This scale is seen as an alternative to the Parenting Stress Index (PSI), which is widely used to measure parenting stress. The PSS is shorter than the PSI, more easily understandable, appropriate for parents with children with and without clinical concerns, and focuses on stress generated specifically by the parenting role — rather than as a result of stress from other situations such as financial and marital problems (Lessenberry & Rehfeldt, 2004). The PSS has been found to correlate well with the PSI ($r = .75$, $P < 0.01$; Berry & Jones, 1995). The PSS has been demonstrated to have levels of internal consistency (.83), and test–retest reliability over six weeks (.81). For this present study, the Cronbach's alpha coefficient was .85.

5.3. Analytic strategy

Bivariate analyses were conducted to describe the overall sample (Table 1). T-tests were used with continuous variables and chi-square tests with categorical variables to establish statistical differences between the in-home and out-of-home group on the dependent variable parenting stress. Separate multivariate analyses for in-home and out-of-home groups were conducted to identify predictors of parenting stress when controlling for demographic variables for two reasons: 1. The two groups were significantly different in a number of areas — parent education, income, partner status, parent mental health and substance use, and on mean levels of parenting stress and 2. Conceptually parents may experience stress related to the parenting role differently when they continue to have day-to-day parenting responsibilities compared to those whose children have been removed from their care. Possible predictors were drawn from significant findings in the parenting stress literature of relatively stable characteristics that reasonably precede child welfare involvement. Predictors were organized by parent demographics (age, education, race), family structure (partner status, number of children), economic hardship factors (housing instability, food insecurity), parent chronic risk factors (substance use, mental health, IPV), and parent report of child mental health.

We report a base model with only parent demographic variables (base model), then add family structure variables (model 1), followed by economic hardship variables (model 2), then parent chronic risk factors (model 3), and lastly child mental health (full model). Consequently, we were able to observe the behavior of parent demographics as we added layers of potential risk factors to the model. All statistical analysis was completed using SPSS version 19.

6. Results

6.1. Parent chronic risk factors

Parents reported high levels of mental health and substance use disorders. The most common type of mental health disorder was depression: 46.1% of respondents met criteria for lifetime depression. There were no significant differences between the in-home and out-of-home group based on parent mental health. The overall rates of drug and alcohol abuse or dependency were lower than rates of mental health in the sample. However, substance use rates for the out-of-home group were almost double of the in-home group (44% vs. 24%, $\chi^2 = 22.61$, $p < .001$).

About one-third (34%) of the total sample reported some form of IPV. The out-of-home group had statistically significant higher rates of IPV (38% vs. 31%, $\chi^2 = 4.62$, $p < .05$). The mean scores of parenting stress were higher for the in-home group (M = 2.05; SD = .53) compared to the out-of-home group (M = 1.91, SD = .53; $p < .001$).

6.2. Economic hardship factors

Economic hardship was measured by families' experience of housing instability and food insecurity. Families whose children were out-of-home were more likely to experience housing instability (59% vs. 52%, $p < .001$), including eviction (20% vs. 12%, $\chi^2 = 8.29$, $p < .005$) and homelessness (37% vs. 18%, $\chi^2 = 34.12$, $p < .001$). A little over half of both groups stated they did not have enough money to pay rent in the 12 months prior to the interview. About a third of both groups reported that they did not have enough money to buy food over the last 12 months.

6.3. Multivariate analysis

A multivariate analysis explored possible predictors of parenting stress for families with children in home supervision (see Table 2) and out-of-home care (see Table 3). Predictors were organized by parent demographics (age, education, race), family structure (partner status, number of children), economic hardship factors (housing instability, food insecurity), parent chronic risk factors (substance use, mental health, IPV), and child mental health. There was an improvement in R^2 from the base models in both groups, with a final R^2 of 14% for the out-of-home group and 19% for the in-home group. There is an overall reduction of the BIC and AIC from the null model to the final model indicating an improvement of fit over the null models.

6.3.1. In-home group

For the in-home group (Table 3), holding all other variables constant, parent age (B = .08, $p < .01$), child mental health (B = .23, $p \leq .001$), and parent mental health (B = .20, $p < .01$) were significant predictors of increased parenting stress. Food insecurity was significant in models 2 and 3 but was no longer significant after controlling for chronic risk factors and child mental health. While not significant in the final model, race and total number of children were significant in intermediary model 1. Families of color had significantly less parenting stress than White families (B = −.15, $p < .05$) and parenting stress increased with number of children in the family (B = .05, $p < .05$). After controlling for economic hardship, chronic risk factors and child mental health, these two relationships were no longer significant.

6.3.2. Out-of-home group

For the out-of-home group (Table 3), holding all other variables constant, parent age (B = .13, $p \leq .001$), child mental health (B = .17,

Table 2
Regression analysis, predicting parenting stress in-home ($n = 327$).

	Base model	Intermediary model 1	Intermediary model 2	Intermediary model 3	Full model
	B (SE)	B (SE)	B (SE)	B (SE)	B (SE)
Parenting stress (ref)					
Parent demographics					
Parent age	0.13 (0.03)***	0.11 (0.03)***	0.11 (0.03)***	0.11 (0.03)***	0.08 (0.03)**
Education					
Some college or more (ref)					
HS/GED	−0.06 (0.07)	−0.05 (0.07)	−0.03 (0.07)	−0.02 (0.07)	−0.02 (0.07)
Less than HS	−0.01 (0.08)	−0.02 (0.08)	0.01 (0.08)	0.02 (0.07)	0.02 (0.08)
Race					
White (ref)					
Families of color	−0.13 (0.07)+	−0.15 (0.07)*	−0.62 (0.07)*	−0.14 (0.07)*	−0.10 (0.07)
Mixed race	0.01 (0.08)	0.01 (0.08)	0.01 (0.08)	−0.02 (0.08)	−0.03 (0.08)
Family structure					
Lone parent		−0.06 (0.06)	−0.04 (0.06)	−0.03 (0.06)	−0.05 (0.06)
Total number of children		0.05 (0.02)**	0.04 (0.02)*	0.04 (0.02)*	0.02 (0.02)
Economic hardship factors					
Housing instability			−0.10 (0.08)	−0.12 (0.08)	−0.11 (0.08)
Food insecurity			0.19 (0.06)**	0.15 (0.06)*	0.10 (0.07)
Parent chronic risk factors					
Substance use				−0.02 (0.08)	−0.03 (0.07)
Mental health disorder				0.22 (0.06)***	0.20 (0.06)***
Intimate partner violence				0.02 (0.07)	0.03 (0.06)
Child mental health					
Child mental health					0.23 (0.06)***
Constant	1.68 (0.11)***	1.64 (0.12)***	1.62 (0.12)***	1.50 (0.13)***	1.55 (0.12)
R^2	0.06	0.08	0.11	0.14	0.19

+ $p < .10$.
* $p < .05$.
** $p < .01$.
*** $p \leq .001$.

Table 3
Regression analysis, predicting parenting stress out-of-home ($n = 445$).

	Base model	Intermediary model 1	Intermediary model 2	Intermediary model 3	Full model
	B (SE)	B (SE)	B (SE)	B (SE)	B (SE)
Parenting stress (ref)					
Parent demographics					
Parent age	0.15 (0.03)***	0.14 (0.03)***	0.15 (0.03)***	0.15 (0.03)***	0.13 (0.03)***
Education					
Some college or more (ref)					
HS/GED	−0.04 (0.06)	−0.04 (0.06)	−0.02 (0.06)	−0.00 (0.06)	−0.02 (0.06)
Less than HS	0.00 (0.06)	0.00 (0.06)	0.02 (0.06)	0.04 (0.06)	0.04 (0.06)
Race					
White (ref)					
Families of color	0.05 (0.06)	0.05 (0.06)	0.04 (0.06)	0.05 (0.06)	0.07 (0.06)
Mixed race	0.03 (0.07)	0.03 (0.07)	0.03 (0.06)	0.03 (0.07)	0.03 (0.06)
Family structure					
Lone parent		0.01 (0.06)	0.02 (0.05)	0.03 (0.05)	0.03 (0.05)
Total number of children		0.01 (0.02)	0.01 (0.02)	0.01 (0.02)	−0.00 (0.02)
Economic hardship factors					
Housing instability			−0.03 (0.05)	−0.04 (0.06)	−0.03 (0.05)
Food insecurity			0.24 (0.05)***	0.23 (0.06)***	0.22 (0.06)***
Parent chronic risk factors					
Substance use				−0.02 (0.06)	−0.01 (0.05)
Mental health disorder				0.08 (0.05)	0.07 (0.05)
Intimate partner violence				0.02 (0.05)	0.03 (0.05)
Child mental health					
Child mental health					0.17 (0.06)**
Constant	1.46 (0.10)***	1.45 (0.10)***	1.35 (0.10)***	1.28 (0.11)***	1.33 (0.11)***
R^2	0.07	0.07	0.11	0.12	0.14

** $p < .01$.
*** $p \leq .001$.

$p < .01$), and food insecurity ($B = .22$, $p \leq .001$) were significant positive predictors of increased parenting stress. Food insecurity maintained significance from intermediary model 2 to the full model for this group ($B = 0.22$, $p \leq .001$), with parents who indicated food insecurity in the past 12 months having increased parenting stress levels.

The models indicate a different combination of factors may predict parenting stress for families when examined by placement status. For the in-home group, increased parenting stress is predicted by a history of parent mental health disorder where as food insecurity is predictive of parenting stress for the out-of-home group. Across both groups, child mental health predicted parenting stress.

6.4. Limitations

Some caution should be taken in the interpretation of this study's findings in light of limitations in study design, sample, and data. Due to the cross-sectional nature of this study, inferences cannot be made about a causal relationship between these identified predictors and parenting stress. Generalization is further limited because the sample was drawn from one geographic region and only includes parents with a new entry to the child welfare agency in the past 30–120 days, excluding the experiences of families whose children were returned home within the first month. Further, this study excluded non-English speaking families and incarcerated parents. This study relies on parent self-report, which is open to reporting bias. While parenting stress scores were significantly different between in-home and out-of-home groups, parents reported lower levels of stress than expected. This may be explained by social desirability bias; parents may have underreported stress due to concerns that their answers would be reported to child welfare and negatively affect their open child welfare case.

7. Discussion

The purpose of the current study was to identify predictors of parenting stress among families involved in the child welfare system. Arguing that context was likely to affect the experience of parenting, we conducted separate analyses by whether children remained in-home with child welfare supervision or were placed in out-of-home care. Indeed, these two groups proved to be distinct on multiple dimensions. Descriptive analyses revealed that parents in the out-of-home group were younger, had less education, and were more likely to be parenting alone. They had fewer financial resources, experienced greater housing instability, more often reported IPV, and had higher rates of substance use than families whose children remained in their parent's care. The observed differences between the two groups are consistent with prior research (Wulczyn et al., 2011). Parenting stress scores were lower in the out-of-home group, which may simply reflect relief from the daily pressures of parenting.

Multivariate analyses by placement status showed that in both groups as parent age increased parenting stress scores also increased, even after controlling for number of children in the home. Across both groups, parenting stress was predicated by child mental health. It has been well-established that children in the child welfare system are at increased risk for mental health problems, with almost half of all children who enter children's services nationally having significant emotional or behavioral problems (Burns et al., 2004). A recent study examining children placed in out-of-home care found a 60% increase between 2000 and 2010 in number of children identified as having a mental health diagnosis (Conn et al., 2013). In our survey, according to parent report, approximately two-thirds of children had mental health problems.

As more children in out of home care struggle with mental health issues, there are cascading effects for their well-being. For example, externalizing child mental health problems can lead to placement disruption, which can exacerbate internalizing and externalizing mental health symptoms (Newton, Litrownik, & Landsverk, 2000). Children with increased numbers of placements are less likely to reunify with their parents (Landsverk, Davis, Ganger, Newton, & Johnson, 1996) and more likely to come back into care after being returned home (VanBergeijk, McGowan, & Stutz, 2001).

These results emphasize a need for comprehensive screenings for child mental health as well as parenting support around managing challenging behaviors for both families who are receiving in-home supervision and out-of-home care, especially given the number of evidenced-based interventions available in many communities. Interventive approaches that reduce parental stress by improving parenting may also act to prevent future maltreatment. There is evidence that among child welfare involved families parenting programs such as The Incredible Years (Webster-Stratton & Reid, 2010), Parent–child Interaction Therapy (PCIT, Chaffin et al., 2004), Project SafeCare (Gershater-Molko, Lutzker, & Wesch, 2003), and Triple P Parenting (Sanders, Prinz, & Shapiro, 2011) can improve parent–child interaction, and reduce the incidence and severity of difficult child behaviors, thereby mitigating parent stress. These programs focus on enhancing parenting skills, increasing parent knowledge regarding child development, reinforcing positive child behavior, and supporting parent–child relationships.

Although parenting stress was lower for those with children in out-of home care, following reunification we would expect parenting stress to increase. This assumption is based on evidence that children's behavioral problems often escalate post-reunification (Bellamy, 2008) and that parents are likely to experience additional stress as they move from intermittent parenting to full-time responsibility. Child behavioral problems post-reunification could lead to increased risk of parent mental health concerns, which may impact child mental health and behavior, and parenting responses (Anastopoulos et al., 1992). Given the limited opportunities for parents to improve parent–child relationships and practice positive parenting skills while children are in out-of-home care, interventions such as those mentioned earlier should be offered to families prior to reunification with booster sessions post-reunification.

For the in-home group, parenting stress was predicted by parent mental health. This finding is consistent with prior research (e.g. McPherson et al., 2009). Interestingly, while rates of parent mental health conditions were not significantly different between the two groups, this risk factor was only a significant predictor of parenting stress for parents whose children remained in the home. We could speculate that mental health problems emerge due to the pressures of parenting. Additionally, parents who have day-to-day parenting responsibilities may have less time to manage their mental health symptoms or engage in self-care.

These findings support a focus on decreasing parent mental health symptoms as a way of decreasing parenting stress for parents who are receiving in-home supervision. While assessment and treatment of parent mental health for families regardless of placement status in important — attention to this factor for the in-home group is critical given the relationship with parenting stress. Successfully treating parental mental health may not only improve the mental health of the caregiver, but can also improve the mental health of the child. Recent evidence highlights the interconnected relationship between improvements in parent and child mental health outcomes. Weissman et al. (2006) found that after three months of receiving treatment for depression, maternal remission was associated with a significant decrease in child mental health problems. In follow-up, Wickramaratne et al. (2011) found that after a year, maternal remission was significantly related to additional reductions in problem behaviors and symptoms in their children.

For families in the out-of-home group, parenting stress was predicted by food insecurity. This may be related to the significantly lower incomes among parents of children in placement or to the fact that the food stamp award decreases when children are removed from the home. In a previous analysis with this sample, mothers of children in out-of-home placements were equally likely to receive food stamps but more likely to utilize a food pantry or community food programs than those in the in-home group (Marcenko et al., 2011). This suggests that parents of children in out-of-home care need concrete assistance to help them meet their families' needs for food, which in turn could decrease parenting stress and support reunification.

7.1. Policy implications

Shifting child welfare policy away from traditional child protective services (CPS) investigation and toward differential response, under specific conditions, makes these findings even more salient. Differential response allows CPS an alternative response to allegations of abuse and neglect in families deemed low-to-medium risk with no immediate safety concerns. An assessment, rather than a forensic investigation is conducted to identify family needs and strengths (Hughes, Rycus, Saunders-Adams, Hughes, & Hughes, 2013). Theoretically, the families in our study who were receiving in-home services would have met criteria for differential response. Their children were not removed early in the case, implying that there were no immediate safety concerns and that families could benefit from community services while their children remained in the home. Our findings suggest that these families experience elevated levels of parenting stress linked to child and parent mental health problems. States employing differential response might examine their assessment tools to determine their ability to detect child and parent mental health problems. Referrals to appropriate evidence based interventions could potentially reduce parenting stress and prevent out-of-home placement.

7.2. Future research directions

Moving forward, future research should work to measure child mental health in a more refined manner — perhaps including both parent perception and child behavioral assessment. This should also explore the potential differential impact of children with internalizing versus externalizing mental health conditions on parenting stress. In addition, future research should capture how parents within this population understand the behavior of their children and whether this understanding reflects typical versus atypical developmental behavior. Given the clear economic disadvantage that this population of parents experience and the finding that food insecurity is associated with increased parenting stress in the out-of-home group, including multiple indicators of food insecurity and experience with community services would be important to improve our understanding of the relationship between food insecurity and parenting stress. Lastly, a longitudinal study design would allow a closer examination of potential causal factors that contribute to, or mitigate, parenting stress among child welfare involved families.

8. Conclusion

In summary, these findings support the conclusion that among child welfare involved families, experiences of parenting stress differ by placement status. For parents whose children remained in the home, attending to issues of parent mental health is important. With over 50% of the parents involved in this study having mental health disorders it is important that parent mental health is adequately treated. Furthermore, for families whose children are placed in out-of-home care it is important that attention be placed on assessing parents needs for food and basic resources. Lastly, issues of child mental health, regardless of the placement of the child, need to be addressed prior to service termination in order to decrease parental and family stress at reunification and support positive parenting.

This current study's findings add to the child welfare and parenting stress literature by identifying sources of parenting stress among families with open child welfare cases. Given that parenting stress is a significant risk factor for child maltreatment, understanding predictors for these families can lead to focused interventions to decrease parenting stress through support in key areas.

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