

BENEVOLENT CHILDHOOD EXPERIENCES AND PARENTING IN THE CONTEXT OF
HOMELESSNESS

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Abstract

Despite the decades of research on the importance of childhood experiences for parenting practices, there is little evidence on the role of positive childhood experiences for parenting practices especially in circumstances marked by adversity such as the context of homelessness. Using the Benevolent Childhood Experiences (BCEs) scale, the present study examined the association between BCEs with two measures of parenting including a subjective report of perceived parenting effectiveness and an independent measure of observed parenting practices. It was hypothesized that BCEs would be associated with both perceived and observed effective parenting practices and buffer the association between childhood adversity and each measure of parenting. An exploratory analysis examined the developmental timing of BCEs in association with both measures of parenting. Participants included 122 caregivers experiencing homelessness ($M = 31.2$ years, $SD = 7.7$, range = 21 – 62; 71.9% African American, 10.7% white, 7.4% Native American or Alaska Native, 5.8% multiracial, 4.1% reported other). Caregivers reported on their negative childhood lifetime events (LTE), BCEs, perceived parenting effectiveness, and demographics. They also participated in structured parent-child interaction tasks, which were coded by trained raters to generate a measure of observed effective parenting. The results indicated that higher BCEs were associated with perceived, but not observed, parenting effectiveness. BCEs did not buffer the association between negative childhood LTE and either measure of parenting. Results from the exploratory analysis revealed that higher BCEs endorsed in adolescence, but not early to middle childhood, were associated with perceived parenting effectiveness. These findings highlight important areas for future investigation to advance the research on BCEs in addition to opportunities for intervention to support caregivers and their capacity to parent in the context of homelessness.

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Benevolent Childhood Experiences and Parenting in the Context of Homelessness

The culmination of research from studies of resilience in developmental science has identified parent-child relationships as one of the strongest influences on child development and a well-established resilience factor in the lives of children who experience adversity (Luthar, 2006; Masten & Coatsworth, 1998; Masten & Palmer, 2019). In the context of homelessness, effective parenting practices have been associated with a host of positive child outcomes including better adjustment (e.g., mental health and adaptive skills), cognitive skills, and academic achievement (Gewirtz et al., 2009; Haskett & Armstrong, 2019). However, the overwhelming stress and challenges associated with homelessness can undermine the capacity to parent (Perlman et al., 2012). Caregivers experiencing homelessness not only encounter stressors associated with limited economic resources and housing instability in their recent past, but they are also more likely to have accumulated negative life events beginning in early childhood (Weinreb et al., 2006). Because early competencies provide a foundation for later adaptation, disruptions in early childhood can have downstream implications for wellbeing and parenting in adulthood (Sroufe, 2013).

Extensive research has documented the enduring negative effects of childhood adversity on parenting in adulthood (e.g., Greene et al., 2020; Madigan et al., 2019; Savage et al., 2019), but there remains a paucity of research on the effects of positive childhood experiences (PCEs) on parenting in adulthood (Alink et al., 2019). Moreover, although development is influenced by the interplay of adverse and protective experiences over time (Cicchetti, 2013), there is little evidence on the influences of cumulative PCEs in the context of childhood adversity (Narayan et al., 2021). Furthermore, no study known to this author has examined PCEs as a resilience factor for perceived or observed parenting effectiveness in the context of homelessness, although PCEs

have been linked to caregiver distress in one prior study among families experiencing homelessness (Merrick et al., 2019). My dissertation aims to address these gaps in the literature by examining how PCEs of caregivers with young children experiencing homelessness are related to parenting practices, with the ultimate goal of informing efforts to support parents in this situation and thereby the wellbeing of their children. This study examined both the direct and buffering effects of PCEs on perceived parenting effectiveness and observed effective parenting practices. This study also explored the developmental timing of PCEs and whether PCEs had differential effects on parenting based on when they occurred in childhood.

Introduction

Theoretical Framework

Perspectives from developmental psychopathology delineate potential mechanisms for the enduring effects of childhood experiences on parenting practices. According to this framework, development is emergent, and adaptation is shaped by the interaction between risk and protective factors overtime (Cicchetti, 2013). Despite the probabilistic nature of development, prior adaptation sets the foundation for subsequent learning, and change becomes more difficult the longer a developmental progression is followed (Sroufe, 2013; Waddington, 1957). Evidence from many studies has corroborated the adverse and enduring effects of exposure to childhood adversity across a host of domains including neurobiological, cognitive, and socioemotional functioning (Cicchetti, 2013). These disruptive effects elevate risk for negative developmental trajectories characterized by impulsivity, aggressiveness, psychopathology, and repeated victimization (Cicchetti, 2013). These challenges can have cascading effects on the capacity to parent well (Plant et al., 2017), and systematic reviews and

meta-analyses have found modest effects for the intergenerational transmission of harsh parenting practices (Greene et al., 2020; Madigan et al., 2019; Savage et al., 2019).

One of the major principles of developmental psychopathology is multifinality, which accounts for differences in developmental outcomes (Cicchetti, 2013). Despite similar exposures to early adversity, some individuals exhibit positive adaptation overtime (Cicchetti, 2013). These observations spurred the study of resilience, which has been defined as “the capacity of a dynamic system to adapt successfully through multisystem processes to challenges that threaten the function, survival, or development of the system” (Masten et al., 2021, p. 524). According to this perspective, adaptive systems within the individual are embedded in a larger context, and dynamic interactions among and between these systems shape the course of development (Masten et al., 2021). Studies of resilience in children have identified a consistent set of promotive and protective factors associated with resilience that often co-occur, leading researchers to suggest that these factors represent common adaptive systems that likely co-evolved overtime (Masten & Barnes, 2018). It is important to situate these resilience factors within diverse contexts; Ungar & colleagues (2008) proposed that resilience is “negotiated between individuals and their communities,” which leads to the use of culturally and contextually specific resilience factors (p. 219).

Promotive factors support positive outcomes in both low and high-risk contexts while protective factors specifically moderate the effects of adversity on adaptation (Masten & Barnes, 2018). These factors span multiple system levels (Theron et al., 2022; Ungar et al., 2013), including individual attributes, such as personality traits, mastery motivation, and self-efficacy, and also an individual’s relationships and other connections to supportive external systems (Masten & Barnes, 2018). For instance, relationships with sensitive caregivers and connections

to well-functioning communities are integral to a child's resilience capacity (Masten & Barnes, 2018). According to a systems perspective on resilience, there is not one specific aspect of child functioning that gives rise to individual differences in response to adversity. Rather, protective factors embedded within various systems dynamically interact to reduce vulnerability and mobilize adaptive systems to support the capacity for resilience (Luthar, 2006; Masten et al., 2021; Ungar et al., 2013).

The Context of Homelessness

The number of families experiencing homelessness has steadily increased over the past several decades (Haskett & Armstrong, 2019). National estimates suggest that in 2016, approximately 480,000 people in family households used an emergency shelter or a transitional housing program, which comprised 35% of all individuals experiencing homelessness (Henry et al., 2017). On average, families reside in shelter longer than single adults, and the average length of stay in shelter is 30 to 90 days (Henry et al., 2018). These families are typically headed by single women with limited education and work experience who have several young children (Bassuk et al., 1996; Shinn & Bassuk, 2004; Shinn & Khadduri, 2020). Homelessness occurs at a disproportionate rate among marginalized families—including ethnic and racial minorities—and estimates from 2016 indicated that 52% of the families who experienced sheltered homelessness were African American (Henry et al., 2017). Such disparities, believed to reflect the structural racism that permeates U.S. society, are especially pervasive in the creation of laws and policies that affect housing availability, evictions, and wealth accumulation (Came & Griffith, 2018; Fowle, 2022; Thomas et al., 2020).

Prior to entering homelessness, many parents already experienced stressors associated with low socioeconomic status including stressful living arrangements, job loss, disrupted

interpersonal relationships, interpersonal violence, and single parenting (Bassuk et al., 1996; Bassuk & Beardslee, 2014; Browne & Bassuk, 1997; Cutuli & Herbers, 2014; Hausman & Hammen, 1993; Paquette & Bassuk, 2009; Perlman et al., 2012; Shinn et al., 1998). Compared to the general population, they are also more likely to have a significant trauma history beginning in early childhood (Arangua et al., 2005; Cutuli et al., 2015; Narayan et al., 2017; Weinreb et al., 2006), which increases the risk for subsequent victimization and poorer adjustment in adulthood (Anda et al., 2006; Bassuk et al., 1996; Schuster et al., 2011; Shinn et al., 1998). For instance, caregivers who experienced homelessness or resided in foster care as a child were more likely to have repeated episodes of homelessness as an adult (Glendening & Shinn, 2021). Moreover, in the context of homelessness, caregiver's report of childhood adversity was directly associated with their experiences of adversity in adulthood (Narayan et al., 2017), and domestic violence is a common precipitant to an episode of homelessness (Shinn et al., 1998).

Parenting in the Context of Homelessness

According to the Family Stress Model, poverty-related hardships generate economic pressures within the family that lead to greater caregiver emotional distress and partner conflict (Conger et al., 2000). Several studies have replicated the Family Stress Model (Conger et al., 2002; Simons et al., 2016), and conditions associated with low socioeconomic status such as crowded housing, dangerous neighborhoods, and financial strain can implicate parenting practices through caregiver psychological distress (Borre & Kliwer, 2014; Pinderhughes et al., 2000; Sevigny & Loutzenhiser, 2010). It is also concerning that the prevalence of chronic psychiatric distress (e.g., major depression, post-traumatic stress disorder, and substance use disorder) is higher among caregivers experiencing homelessness compared to similar mothers with stable housing, posing risk to their capacity to parent (Lee et al., 2010; Weinreb et al.,

2006). For example, in one of the few studies to examine parent-infant responsiveness among families experiencing homelessness, caregiver distress was inversely associated with the degree of attunement between the caregiver and infant (Herbers et al., 2020).

Caregivers experiencing homelessness not only experience the stressors associated with low socioeconomic status, but they are also faced with a constellation of risk factors that arise from living in emergency or transitional housing (Hausman & Hammen, 1993; Perlman et al., 2012). Upon entering shelter, a substantial portion of mothers are separated from their children (Paquette & Bassuk, 2009). Zlotnick & colleagues (2013) found that over the course of a 15-month study period, approximately two-thirds of mothers were separated from at least one of their children. There are a multitude of reasons for this separation, which may include a voluntary decision on behalf of the caregiver to protect their child from residing in shelter or an involuntary decision made by social service agencies (Paquette & Bassuk, 2009). Regardless of the reason, mothers who are separated from their children often experience significant distress and feelings of disempowerment (Barrow & Laborde, 2008).

Living in an emergency homeless shelter also disrupts family processes (Lindsey, 1998), and caregivers often face scrutiny associated with “intersecting classist, racist, and sexist stereotypes” that classify them as unfit parents (Reppond & Bullock, 2020, p. 1). Based on interviews with mothers experiencing homelessness, caregivers linked experiences of discrimination in shelter to less respect from their children (DeWard & Moe, 2010). In addition to heightened scrutiny, families are also required to adhere to imposed schedules around mealtimes, sleeping, and when they can leave the shelter (Mayberry et al., 2014). These rules and regulations may create consistency for some families but pose challenges for others and can exacerbate power inequities in shelters (Reppond & Bullock, 2020). For instance, rules related to

curfew, bedtime, and saving requirements can result in feelings of diminished autonomy (Connolly, 2000). Families also lose privacy while residing in shelter (Friedman, 2000). They may sleep in multi-family rooms or have limited opportunities to discipline their children in private, which undermines parental authority or evokes feelings of incompetence (Cosgrove & Flynn, 2005; Mayberry et al., 2014; Schultz-Krohn, 2004; Swick & Williams, 2010). In a recent systematic review of parent experiences in the context of homelessness, caregivers reported that feelings of insecurity, lack of privacy, isolation, stigma, and disempowerment posed challenges to parenthood (Andrade et al., 2020). In addition, longer stays in shelter exacerbated caregiver stress and feelings of disempowerment (Marçal et al., 2021).

The literature on caregivers experiencing homelessness indicates that many parents face immense challenges, and it would not be surprising for their parenting practices to be affected, both by lingering effects of past hardships and current experiences of adversity, including socioeconomic stressors and the nature of the shelter environment. Nonetheless, parenting is widely viewed as a buffered system (Belsky, 1984), and it is important to broaden the scope of investigation to understand both the risks that may undermine parenting and the resilience factors that may counter or mitigate this risk. There is considerable variability in parenting among caregivers experiencing homelessness (e.g., Narayan et al., 2017), and prior studies have identified promotive and protective factors that support parenting in this context. For instance, neurocognitive skills were associated with observed effective parenting practices (e.g., Lucke et al., 2021; Monn et al., 2017), and caregiver beliefs such as their efficacy (Gewirtz et al., 2009) and satisfaction with parenting had implications for their parenting practices and overall wellbeing (Alleyne-Green et al., 2018; Bradley et al., 2018). However, the literature examining

resilience factors for parenting in the context of homelessness is limited, especially concerning positive experiences during childhood that may buffer the effects of cumulative adversity.

Cumulative Childhood Experiences

Even though there is strong evidence to suggest that positive experiences are important for development, little is known about the *cumulative effect* of PCEs and their implications for parenting practices, especially among caregivers experiencing homelessness. Historically, the majority of studies in developmental science assessed cumulative risk without considering the role of protective factors in childhood. Research on cumulative risk first burgeoned in the middle of the twentieth century based on clinical observations that children with more than one risk factor were more likely to have worse developmental outcomes (Rutter, 1979, Sameroff et al., 1987). This subsequently led to the development of cumulative risk measures that attempted to capture constellations of risk rather than a single adverse experience (Evans et al., 2013). The content of these measures often varied. Researchers selected risk variables deemed pertinent to their research question (Obradović et al., 2012), or alternatively, created measures to capture risk factors across multiple levels of the environment that encompassed influences within the individual, family, and community (Sameroff, 2006). For example, life event questionnaires (LEQs) are a commonly used measure of cumulative risk (e.g., Evans et al., 2013; Masten et al., 1994; Obradović et al., 2012). The LEQ measure developed in the Project Competence Longitudinal Study (PCLS; Masten & Tellegen, 2012), was designed to capture cumulative risk indicated by negative life experiences—both acute and chronic—covering the past 12 months. This instrument included positive events to alleviate the negative tone of most LEQ instruments, and also systematically classified events by their independence from the child’s own behavior as well as the desirability and chronicity of the event (Masten et al., 1994). Some investigators also

developed lifetime life events questionnaires that span life to date rather than a shorter period of time. Masten and colleagues, for example, assessed lifetime events through questionnaires in studies of children exposed to homelessness (Masten et al, 1993) and war trauma (Hubbard et al., 1995), as well as the PCLS normative sample of youth (Gest et al., 1999). Other commonly used measures include the Traumatic Life Events Questionnaire, which includes questions pertaining to 16 types of potentially traumatic events, and has shown strong temporal stability as well as convergent validity with interview disclosure (Kubany et al., 2000).

The study of cumulative risk indexed by reports of negative life experiences further proliferated after Felitti & colleagues' (1998) landmark study of adverse childhood experiences (ACEs) in which adults reported their exposure to ten types of abuse, neglect, and household dysfunction in childhood and adolescence. Similar to prior studies of cumulative risk, ACE scores were associated with a host of adverse outcomes in childhood and adulthood (e.g., Anda et al., 2010; Evans et al., 2013; Flaherty et al., 2013). While a cumulative measure of adversity has notable limitations—such as obscuring the mechanisms in which different types of adversity affect individuals (e.g., McLaughlin et al., 2014)—several key findings emerged from the study of cumulative risk. Based on research with the ACEs questionnaire, researchers found that childhood adversity was relatively common and estimates from nationally representative samples in the U.S. indicated that approximately half of youth endorsed at least one ACE (Finkelhor et al., 2009; Rubinstein et al., 2020). This research also identified risk markers, which are specific experiences associated with high levels of cumulative risk. In the context of homelessness, for example, the prevalence of each type of ACE is higher compared to a nationally representative sample of adults in the U.S. (Narayan et al., 2017), and a recent meta-analysis found that the lifetime prevalence of at least one ACE in this population was 89.8% (Liu et al., 2021).

Moreover, many empirical studies have corroborated the interrelatedness of adverse events or experiences (Evans, 2013). For instance, exposure to one type of ACE (e.g., abuse) increased the likelihood of exposure to other types of ACEs (e.g., household dysfunction) (Dong et al., 2004; Finkelhor et al., 2007). One of the most influential and replicated findings from the study of cumulative risk is the dose-response association between risk exposure and adjustment (Evans et al., 2013). Individuals who reported four or more ACEs were significantly more likely to have poorer outcomes in adulthood including ineffective parenting practices (Hamby et al., 2021; Rowell & Neal-Barnett, 2022). This pattern has also been shown in the context of homelessness, and adults with more ACEs had significantly higher risk for a host of maladaptive outcomes including suicidality, depression, substance misuse, and victimization (Liu et al., 2021).

The impact of ACEs research has influenced prevention practices in other disciplines such as public policy (e.g., Hamby et al., 2021) and healthcare (e.g., Finkelhor, 2018). In efforts to prevent problems in development, there has been a shift in focus to poly-strengths and the possibility that a wide range of assets across the environment—individuals, families, and communities—may also have a dose-response relationship with adaptive outcomes in adulthood (Hamby et al., 2021). According to the Resilience Portfolio Model, it may be more appropriate to examine positive experiences in childhood using a cumulative approach, rather than considering the influence of each experience separately, to better capture the broader context in which these experiences occur (Hamby et al., 2021). This perspective is consistent with the theory of developmental psychopathology and the importance of considering the interrelated and synergistic effects of childhood experiences (Cicchetti, 2013). Although the past several decades of resilience research has identified important protective factors that support adaptation in the context of adversity (e.g., Masten et al., 2021), there remains a need to understand the prevalence

of cumulative PCEs and whether this varies by context including those with varying levels of risk. Additionally, similar to the findings garnered from ACEs research, studies examining PCEs have the potential to elucidate whether there is a given number or combination of positive experiences that are critical to healthy adjustment (Hamby et al., 2018). As the research on PCEs builds, researchers can then identify malleable psychosocial strengths for individuals across different contexts to inform effective prevention and intervention strategies (Hamby et al., 2018).

Positive Childhood Experiences

PCEs from birth to age 18 encompass “internal and external perceived safety, security, and support and positive and predictable qualities of life” (Narayan et al., 2018, p. 20). Research using the Benevolent Childhood Experiences (BCEs) Scale—a 10-item self-report measure of positive experiences from birth to age 18—found that BCEs were relatively common in both low and high-risk contexts (Narayan et al., 2018). For example, out of 10 items, highly-educated pregnant women endorsed 9.39 BCEs (King et al., 2021), American undergraduate students endorsed 8.70 BCEs (Doom et al., 2021), a community sample of Chinese adults endorsed 8.61 BCEs (Geng et al., 2021), and a nationally representative sample of young people from Northern Ireland endorsed 7.64 BCEs (Redican et al., 2023). Similarly, BCEs were common among adults who experienced relatively higher levels of risk including those with a history of trauma ($M = 6.39$ BCEs) (Karatzias et al., 2020), a current episode of homelessness ($M = 7.56$ BCEs) (Merrick et al., 2019), or current incarceration ($M = 8.36$ BCEs) (Almeida et al., 2022).

Adverse and positive childhood experiences co-exist and the experience of one does not necessarily reflect the absence of the other (Guo et al., 2022; Karatzias et al., 2020; Narayan et al., 2018). For instance, among caregivers experiencing homelessness, BCEs and ACEs were inversely but only modestly related (Merrick et al., 2019). Additionally, King & colleagues

(2021) found that a one unit increase in the BCEs scale was associated with a 20% decrease in adverse childhood experiences among pregnant individuals, indicating that more BCEs were associated with a reduction, but not an absence, of adverse childhood experiences.

Psychological Distress

Consistent with the resilience framework, research using a cumulative measure of PCEs has found both promotive and protective effects on psychological functioning (Hays-Grudo & Morris, 2020). Among individuals experiencing relatively low levels of risk in the U.S. (Crandall et al., 2019; Crandall et al., 2020; Doom et al., 2021) and China (Xu et al., 2022; Zhang et al., 2021), higher BCEs scores were inversely associated with psychological distress. A similar association was also found among adults experiencing relatively higher levels of risk including those with fewer socioeconomic resources (Crandall et al., 2021), caregivers who perpetuated childhood maltreatment (Abbott & Slack, 2021), caregivers who resided in an emergency family homeless shelter (Merrick et al., 2019), and justice-involved adults (Almeida et al., 2023). Additionally, among adults from a rural, low-income community, cumulative PCEs explained unique variance in trauma symptoms and subjective well-being even after controlling for each individual positive experience (Hamby et al., 2018). The promotive, graded effect of PCEs has also been replicated in a representative sample of adults; more PCEs were associated with fewer depressive symptoms and higher social support after controlling for childhood adversity (Bethell et al., 2019). Beyond more common experiences of psychological distress—such as depression and anxiety—PCEs were associated with fewer symptoms of personality psychopathology (Gunay-Oge et al., 2020; 2023; Skodol et al., 2007). Several studies have also investigated the protective effect of PCEs and found that they mitigated the association between ACEs and mental and physical problems in adulthood (Kuhar & Kocjan, 2021; Rodriguez et al., 2021).

In addition to research with adults, PCEs have been measured in studies with adolescents. Australian adolescents with more PCEs endorsed fewer mental health concerns and academic difficulties (Guo et al., 2022). Similarly, among Chinese adolescents, more PCEs were inversely associated with depression and anxiety symptoms (Qu et al., 2022). In one of the few studies that used a person-centered approach, Liu & colleagues (2020) investigated PCEs and whether there were differential effects by race and ethnicity. Using a latent class analysis, four classes of PCEs emerged, which included high protection, low safety, low community resources, and low family and school resources. Adolescents who fell in the high protection category—and had access to positive experiences across family, school, and community environments—exhibited relatively better health outcomes. However, the protective effect of each latent class varied by race and ethnicity. For example, Black youth were more negatively impacted by low community resources compared to White and Latinx youth (Liu et al., 2020). These findings emphasize the importance of person-centered methodologies to understand if certain types of PCEs are especially beneficial for individuals across different racial and ethnic backgrounds.

Adaptive Outcomes

In addition to measures of psychological distress, PCEs have also been associated with a host of other adaptive outcomes in adulthood. For instance, after accounting for childhood adversity, BCEs were associated with more adaptive outcomes in the domains of family, social, and emotional health processes (Daines et al., 2021), emotion regulation (Almeida et al., 2022; Karatzias et al., 2020), cardiovascular health (Slopen et al., 2017), and sleep (Geng et al., 2021). Among adults from a representative sample in Washington state, higher PCEs were associated with better mental health, physical health, problem behaviors, school, and work, even after controlling for ACEs (Longhi et al., 2021). Among adolescents, PCEs were associated with a

reduction in substance use (Broadbent et al., 2022; Kosterman et al., 2011; Oman et al., 2004), and similar findings have been found among adults; BCEs attenuated the association between ACEs and tobacco use in adulthood (Novilla et al., 2022). In addition to substance use, PCEs have also been associated with a reduction in youth recidivism (Baglivio & Wolff, 2021). For instance, in a multi-state sample of justice-involved youth, PCEs directly reduced the odds of recidivism and mitigated the association between ACEs and recidivism (Kowalski et al., 2022).

The Perinatal Period

While childhood adversity has been associated with a host of adverse outcomes during pregnancy—physiological, psychological, social, behavioral—recent research has found promotive and protective effects of PCEs for outcomes during the perinatal period (Olsen et al., 2018). For instance, Narayan & colleagues (2018) found that BCEs were associated with fewer post-traumatic stress symptoms and exposure to stressful life events during pregnancy even after controlling for ACEs. Other studies have replicated the association between PCEs and lower psychological distress during pregnancy (Chung et al., 2008) and the peripartum period (Cárdenas et al., 2022) as well as with improvements in sleep during pregnancy (Nevarez-Brewster et al., 2022). Similarly, when psychopathology was measured dimensionally using the Hierarchical Taxonomy of Psychopathology (HiTOP) framework, BCEs maintained its promotive effect and was inversely associated with a general dimension of psychopathology among pregnant individuals (Clark et al., 2023).

Furthermore, while pregnancy during adolescence has historically been associated with poorer adjustment in adulthood, there is heterogeneity in outcomes and such variation may be attributed to the presence of PCEs (Oxford et al., 2006). Several studies found a dose-response relationship such that higher PCEs among pregnant adolescents were associated with adaptive

outcomes in adulthood including employment, finances, emotion regulation, and mental health (Cheney et al., 2021; Hillis et al., 2010). Moreover, there is also evidence to suggest that the timing of BCEs is important. Among pregnant individuals, BCEs in early childhood were more strongly associated with less risky reproductive planning than BCEs that occurred later in childhood (Merrick et al., 2020). Although additional research is needed to replicate these findings, they are consistent with the broader literature that has found differential effects of the timing of traumatic events in childhood for wellbeing in adulthood (e.g., Schalinski et al., 2016).

Parenting

Several studies have examined the association between PCEs with constructs related to parenting. Parenting is a relevant outcome when considering the promotive and protective effects of PCEs as the experience of parenthood often elicits self-reflection—on behalf of the caregiver—about their own experiences in childhood that is integrated into their own caregiving behavior (e.g., Fraiberg et al., 1975; Lieberman et al., 2005). Prior research has found direct effects of BCEs among pregnant individuals on their prenatal “angel memories,” which are memories of loving childhood experiences that are hypothesized to guide parenting behaviors (Narayan et al., 2020). This study also found that BCEs were indirectly associated with postnatal angel memories that were mediated by prenatal angel memories (Narayan et al., 2020). Findings from this study, taken together, suggest that BCEs may hold importance for the content of angel memories, which is significant because this type of memory has been shown to mitigate the effects of childhood adversity on maternal post-traumatic stress symptoms (Narayan et al., 2019). In another study, PCEs were associated with reflective functioning skills among mothers with substance use disorder (Håkansson et al., 2018). Reflective functioning supports the capacity to mentalize—understanding mental states in oneself and others—and is proposed to

underlie parent sensitivity (Håkansson et al., 2018; Slade, 2005). Additionally, Morris & colleagues (2021) developed a Protective And Compensatory Experiences (PACEs) measure and found that PACEs moderated the effect of ACEs on harsh parenting attitudes, suggesting a protective effect. Nonetheless, it is important to recognize the possibility that other experiences may drive the association between PCEs and effective parenting behaviors. For example, similar to the literature on the study of adversity, there may also be continuity in advantages associated with PCEs, and Cárdenas & colleagues (2022) proposed that PCEs may reflect access to current resources that support caregiver well-being during pregnancy and parenthood.

The Present Study

Evidence to date suggests that PCEs are associated with adaptive outcomes in adulthood—including constructs important for parenting—even after accounting for childhood adversity. However, in the context of homelessness, only one published study identified to date has examined the effects of BCEs for caregiver distress in adulthood (Merrick et al., 2019). No identified study to date has examined the association between PCEs and parenting among caregivers experiencing homelessness. Additionally, the few studies in the broader literature that have examined the association of PCEs with parenting have utilized self-report measures of parenting as well as PCEs (e.g., Morris et al., 2021) or information gathered from semi-structured interviews (e.g., Håkansson et al., 2018; Narayan et al., 2020). Both approaches are subject to reporter bias, which occurs when retrospective reports about childhood experiences vary as a function of the reporter's current distress or wellbeing (Widom et al., 2004). Among caregivers experiencing homelessness, it is plausible that the elevated stress generated from chronic housing instability, or their current situation, may lead to a negative bias in their reporting of both childhood experiences and their parenting practices (Gotlib et al., 1988; Widom

et al., 2004). Consequently, studies that solely rely on self-report measures are inherently limited by the potential confound of response bias, which makes it difficult to isolate the role of childhood experiences as risk or protective factors for parenting in adulthood (Widom et al., 2004).

The present study was designed to address these gaps in the literature and advance the body of research on BCEs as a potential promotive and protective factor for parenting in the context of homelessness. In line with this goal, this study examined the main and moderating effects of BCEs in association with an independent measure of parenting behaviors generated from observational parent-child interaction tasks to address the confound of response bias (Aspland & Gardner, 2003; Widom et al., 2004). In addition, because prior research has found a positive association between PACEs and parenting attitudes (Morris et al., 2021), this study also included a self-report measure of perceived parenting effectiveness as an outcome to ascertain whether the findings from this study in the context of homelessness were consistent with the broader literature.

Aim 1. The first aim of this study was to investigate whether BCEs were associated with two measures of parenting—perceived parenting effectiveness and observed effective parenting—among caregivers experiencing homelessness, consistent with a promotive effect.

Hypothesis 1: After controlling for childhood adversity, greater BCEs will be positively associated with perceived parenting effectiveness and observed effective parenting.

Aim 2: The second aim of this study was to examine whether BCEs moderated the risk of childhood adversity for perceived parenting effectiveness and observed effective parenting among caregivers experiencing homelessness, consistent with a protective effect.

Hypothesis 2: BCEs will have a protective effect against the risk of childhood adversity on parenting, statistically moderating the association between childhood adversity for both perceived parenting effectiveness and observed effective parenting.

Aim 3: There is minimal research on the effects of the timing of BCEs for outcomes in adulthood. Therefore, the third aim of the present study was exploratory, to investigate whether associations between BCEs and perceived parenting effectiveness and observed effective parenting varied by the developmental timing of BCEs in childhood. Theory presented above (e.g., Sroufe, 2013) and limited research on BCEs (Merrick et al., 2020) suggested that BCEs that occurred earlier in childhood may have more impact on adult adaptive functioning than BCEs in adolescence. Therefore, BCEs scores endorsed during childhood (from birth to 12) versus adolescence (ages 13 to 18) were examined in association with perceived parenting effectiveness and observed effective parenting.

Methods

Study recruitment among families experiencing homelessness is challenging due to high residential mobility, which often results in studies with small sample sizes. Therefore, data for this study were drawn from two related studies with families who were residing in an emergency homeless shelter designed for families with children in a large metropolitan city during the summers of 2017 and 2019. Across these two protocols, there was some variation in the assessments used, but the constructs examined in the present study were measured with the same instruments.

Participants

In 2017, 114 eligible families resided in the shelter during the recruitment period, and 58 (50.9%) participated in the study. In 2019, 112 eligible families resided in the shelter during the

recruitment period, and 71 (63.4%) participated in the study. There are a number of possible reasons why eligible families did not participate in the study, in addition to an active choice not to participate. At the beginning and end of recruitment periods, families often left the shelter before they could have learned of the study or before they could be scheduled. In addition, during the study, families often moved in or out of the shelter or had to cancel a study session due to urgent priorities. In total, there were 129 dyads who completed the study protocol in 2017 (N = 58) and 2019 (N = 71). Two dyads participated in both years and were therefore removed from the 2019 data (N = 127). In 2019, two additional caregivers reported that their child had a significant developmental delay after joining the study. These two families also were removed from the data due to eligibility criteria for the study (a developmental delay that does not interfere with study completion) (N = 125).

Among the caregivers who participated, the majority were biological mothers (84.0%), followed by biological fathers (12.0%), grandmothers (2.4%), and stepfathers (1.6%). Given the small percentage of grandmothers who participated in the study, they were removed to minimize statistical noise from variations in sociodemographic factors that were not significant enough to statistically control (Bornstein et al., 2013). The final study sample included 122 parents ($M = 31.2$ years, $SD = 7.7$, range = 21- 62; 71.9% African American, 10.7% white, 7.4% Native American or Alaska Native, 5.8% multiracial, 4.1% reported other; 7.4% Hispanic) and their 4-6-year-old child (59.0% male; 63.6% African American, 21.5% multiracial, 7.4% Native American or Alaska Native, 5.0% white, 2.5% reported other; 8.2% Hispanic) residing in emergency housing in the summer of 2017 or 2019.

Procedure

The Institutional Review Board approved all study procedures. Both study protocols had identical inclusion and exclusion criteria. To be eligible to participate in the study, families must have lived in shelter for at least three consecutive days to allow for acclimation. Only one child per family participated. If the family had more than one eligible child, one child was randomly chosen to participate. Exclusion criteria were insufficient English to complete the tasks or a developmental delay identified by the parent that interfered with the child's ability to participate in study procedures. The caregiver provided informed consent for themselves and their child, and the child provided assent. Families were recruited through fliers in mailboxes and informational tables set up during mealtimes. Parents received honoraria in the form of a gift card, and the child received a small toy.

Study sessions took place in dedicated research rooms located in the shelter. Assessors were trained graduate and undergraduate students. For the 2017 protocol, the caregiver and child completed two study sessions one week apart. For the 2019 protocol, the caregiver and the child completed a single study session. Across both protocols, caregivers participated in a structured interview that included questions about demographics and childhood events while their child completed cognitive and behavioral tasks in a separate room. The caregiver and child were then reunited to complete a set of video-recorded interactive tasks and games. These tasks were originally developed by the Parent Management Training Oregon Model (PMTO) research team (Forgatch & DeGarmo, 1999), and later adapted for use with homeless and highly mobile families (Gewirtz et al., 2009; Herbers et al., 2011; Narayan et al., 2012). In 2017, the structured sequence of tasks were 25 minutes long and included two five-minute problem-solving discussions and three parent-led teaching tasks (guessing game, marble labyrinth game, tangram

puzzle) (DeGarmo et al., 2004). In 2019, the structured sequence of tasks was the same except it only included two parent-led teaching tasks instead of three (guessing game, marble labyrinth game). Video-recordings from both protocols were coded for parenting practices using the same family interaction task codes (Forgatch et al., 2010). Raters received the same training and reliability criteria. One rater coded video-recordings for both protocols.

Measures

Benevolent Childhood Experiences (BCEs)

The BCEs scale is a 10-item self-report measure of positive experiences in childhood from birth to 18 years (Narayan et al., 2018). The scale measures both aspects of internal (e.g., beliefs that gave you comfort) and external (e.g., at least one caregiver with whom you felt safe) perceived safety and security. Questions also pertain to experiences that support quality of life (e.g., enjoyment of school, predictable home routine) as well as relational support (e.g., a teacher who cared). In a pilot study, the BCEs scale had high test-retest reliability ($r = .80, p = .01$) and predictive validity (e.g., psychopathology and adverse life events) (Narayan et al., 2018). For the present study, positively endorsed items were summed for a total BCEs score ($M = 7.8, SD = 2.2$, range = 0 – 10), reflecting greater positive experiences in childhood. The internal reliability was acceptable ($\alpha = .72$). If participants positively endorsed a BCE item, they were then asked the specific ages the experience occurred in childhood (ages 0 - 18). Follow-up questions about timing have been used in other validated instruments such as the Life Stressors Checklist (Wolfe et al., 1996).

Lifetime Events Questionnaire (LTE)

The LTE questionnaire is a 22-item checklist of life experiences. The majority of items pertain to negative life events (e.g., death of family members, hospitalizations, incarceration,

exposure to violence) (Masten et al., 1993). If participants positively endorsed an item, they were then asked if this experience occurred in childhood (ages 0 - 18), adulthood, and/or the past year. There was one item that did not clearly reflect a negative life event (“you were married”) and was therefore not included in the total score. Positively endorsed items of the negative life events (21 items) in childhood were summed for a total negative childhood LTE score ($M = 2.8$, $SD = 2.4$, range = 0 – 12) with higher scores reflecting more negative life events in childhood. For the present study, the internal reliability was acceptable ($\alpha = .64$).

The LTE questionnaire is similar to the ACEs questionnaire, which is a widely used measure of adverse experiences in childhood (Felitti et al., 1998). Across these two measures, one item is identical and pertains to parental divorce or separation. Four items are similar in regard to fear or actual physical injury, parent substance use, and parent mental illness. There is a large body of literature that has examined cumulative risk with the ACEs questionnaire and its association with maladjustment in childhood and adulthood (e.g., Felitti et al., 1998) and specifically among adults experiencing homelessness (Liu et al., 2021). Unpublished work examining the concordance between the LTE questionnaire and ACEs questionnaire in an independent sample of caregivers experiencing homelessness in the same city in 2012 provided evidence that the LTE indexes cumulative adversity and also showed the expected, moderately strong relation to ACE scores (Pearson’s $r = .53$, $p < .001$) (see Appendix A).

Observed Effective Parenting

Observed effective parenting practices were measured from observed parent-child interaction tasks. In 2017, these tasks included two five-minute problem-solving discussions and three parent-led teaching tasks (guessing game, marble labyrinth game, tangram puzzle) that were developed by the Parent Management Training Oregon Model (PMTO) research team

(DeGarmo et al., 2004; Gewirtz et al., 2009). The tasks were identical in 2019 but did not include one of the teaching tasks (tangram puzzle). The videos were coded by trained raters using family interaction task codes that were also developed by the PMTO research team (Forgatch et al., 2010). The raters watched each interaction task twice and provided independent ratings of parent and child behaviors on a 5-point Likert-type scale ranging from 1 = *never applies/untrue* to 5 = *applies all of the time/very true*. A greater number of individual items was rated for the lengthier videos from the 2017 protocol, but identical items across protocols were averaged into four composite scales using standard scoring procedures (Forgatch et al., 2010).

The composites included successful problem solving (e.g., brainstorming, listening, focus on positive behaviors; 32 items; $\alpha = .91$ in 2017; $\alpha = .87$ in 2019), coercive discipline (e.g., hostility, nagging, overly strict; 17 items; $\alpha = .84$ in 2017; $\alpha = .82$ in 2019), skill encouragement (e.g., supportive corrections, leadership, encourage independence; 13 items; $\alpha = .91$ in 2017; $\alpha = .89$ in 2019), and positive involvement (e.g., warmth, encouragement, respect; 30 items; $\alpha = .95$ in 2017; $\alpha = .92$ in 2019). Tapes were randomly selected to measure coder reliability. Intraclass correlation coefficients (ICCs) were calculated at the scale level and were good to excellent across the four composite scales (problem solving ICC = .89 in 2017 and ICC = .89 in 2019; positive involvement ICC = .87 in 2017 and ICC = .93 in 2019; skill encouragement ICC = .87 in 2017 and ICC = .77 in 2019; coercive discipline ICC = .94 in 2017 and ICC = .92 in 2019). Composite scores (problem solving, positive involvement, skill encouragement, coercive discipline) were z-scored within protocol and coercive discipline was reverse coded. These z-scored composites were averaged to form an overall observed effective parenting score. This approach has been used in previous studies (Akin et al., 2018) and specifically in those with

individuals experiencing homelessness (Narayan et al., 2012) across multiple study protocols (Labella et al., 2019).

Perceived Parenting Effectiveness

Perceived parenting effectiveness was measured with a 1-item question about general parenting competence (Masten et al., 1999). Parents were asked “compared to other parents your age, how well do you think you are doing as a parent?” and responded on a 5-point Likert scale ranging from 1 = *not well at all* to 5 = *very well* ($M = 4.14$, $SD = .96$, range = 1- 5). This item has been used in prior research examining parents’ perception of their own parenting quality (e.g., Shaffer et al., 2009).

Covariates

The covariates included study year, age, gender, receptive vocabulary, and distress. Receptive vocabulary has been associated with observed measures of parenting behaviors (e.g., Lucke et al., 2021), and there is evidence that caregiver cognitive capacities are important assets for parenting in high-risk contexts such as homelessness (e.g., Crandall et al., 2015). Receptive vocabulary was measured with the Picture Vocabulary Test (PVT; Gershon et al. 2013), which is an iPad-based task from the NIH Toolbox of cognitive measures. During this task, parents heard a recorded voice saying a word and were presented with four pictures on the screen. Parents were instructed to select the picture that matched the word they heard. The PVT is a computer adaptive test, so the difficulty of the words was automatically adjusted based on the individual’s performance. Higher scores on the PVT indicated better receptive language proficiency ($M = 87.8$, $SD = 16.9$, range = 40.0 - 133.9). The PVT has shown strong test-re-test reliability as well as convergent and divergent validity when compared to gold-standard measures of receptive language (Weintraub et al., 2013).

To attempt to account for potential response bias on self-report questionnaires, the Kessler Screening Scale for Psychological Distress (Kessler et al., 2003) was used to control for parent distress. This scale is composed of six screening questions that have been used for epidemiological research on distress-related mental health difficulties (e.g., sadness, nervousness, hopelessness, and restlessness). Parents were asked how often they felt this way in the past 30 days on a 5-point Likert scale ranging from 0 = *all of the time* to 4 = *none of the time*. Responses were re-coded and summed such that higher scores indicated greater psychological distress ($M = 9.0$, $SD = 5.7$, range = 0 - 24). For the present study, the internal reliability was good ($\alpha = .83$).

Missing Data

The proportion of missing data varied across variables, ranging from 0% (age, gender) to 17.2% (observed effective parenting) (see Table 1). Differences between those with and without missing data were examined on all key variables with >5% missing data (BCEs and observed effective parenting). There were significantly more missing data for BCEs in the 2017 study year compared to the 2019 study year ($\chi^2(1) = 10.1$, $p < .001$). There were no significant differences between groups with and without missing BCEs data on the other key variables. For observed effective parenting, caregivers with missing data were more likely to be younger ($M = 28.6$, $SD = 5.7$) than those without missing data ($M = 31.7$, $SD = 8.0$; $t(38) = 2.12$, $p < .05$). Caregivers with missing data for observed effective parenting endorsed significantly fewer BCEs ($M = 5.6$, $SD = 2.6$) compared to caregivers without missing data ($M = 8.0$, $SD = 2.0$; $t(14) = -3.18$, $p < .01$). Additionally, there were significantly more missing data for observed effective parenting in the 2017 study year compared to the 2019 study year ($\chi^2(1) = 6.7$, $p < .01$) and significantly more females had missing data for observed effective parenting than males ($\chi^2(1) = 4.1$, $p < .05$).

Little's MCAR Test was also conducted to evaluate patterns of missingness (Little, 1988). Even though the non-significant chi-square statistic ($\chi^2 = 48.1, df = 39, p = .15$) indicated that the data were missing completely at random, caregivers with missing data for observed effective parenting and BCEs significantly differed on several key variables, thus suggesting the data were missing at random. To reduce the bias from excluding participants with missing data, multivariate imputation by chained equations was used for 122 participants with 100 imputations (mice package; Version 3.5.0; van Buuren & Groothuis-Oudshoorn, 2011). Raw data were used for the descriptive statistics. Imputed data were used for the correlation and regression analyses. Both the correlation and regression analyses were also computed using list-wise deletion to determine if the pattern of results were similar (see Supplemental Tables 1-8) (Woods et al., 2021).

Power Analysis

Power is the probability of a hypothesis test to detect an effect that exists (Cohen, 1992). The focal analysis for this study was a regression analysis examining the direct and moderating effects of BCEs and negative childhood LTE in association with perceived parenting effectiveness and observed effective parenting. Therefore, for the present study, power was the ability to conclude that BCEs and negative childhood LTE had significant main effects on both measures of parenting and that BCEs attenuated the association between negative childhood LTE with both measures of parenting when in fact there were main and moderating effects. Based on a simulation with the proposed analysis using effect sizes gathered from prior literature (Gewirtz et al., 2009; Jones & Prinz, 2005; Merrick et al., 2019; Morris et al., 2021), this study with 122 participants and an alpha value of .05 had 80% power to detect main effects of .3 or larger and moderation effects of .2 or larger.

Planned Analyses

Data analyses were performed using R (Version 1.1.456; RStudio, Inc. 2009-2018). Bivariate correlations evaluated the associations between variables associated with perceived parenting effectiveness and observed effective parenting. Spearman's ρ was used for the ordinal variable (perceived parenting effectiveness) and Pearson's r was used for all other variables. Hierarchical linear regressions were conducted to address the first two aims of the study. The first aim of the study was to investigate the direct effects of BCEs in association with perceived parenting effectiveness and observed effective parenting. The second aim of the study was to examine whether BCEs moderated the association between negative childhood LTE and both measures of parenting. When planning this study, it was initially proposed to use path analyses to account for both the co-variation between perceived parenting effectiveness and observed effective parenting as well as the co-variation between multiple independent variables. However, preliminary findings indicated that these two sets of variables were not related; there were non-significant correlations between the independent variables (BCEs and negative childhood LTE) and between the outcome variables (perceived parenting effectiveness and observed effective parenting). Therefore, the decision was made to utilize separate regressions instead of a combined path analysis due to the nature of the associations between the independent variables and between the outcome variables.

Thus, two hierarchical linear regressions were conducted, one for each of the parenting outcomes, to examine whether BCEs were directly associated with perceived parenting effectiveness and observed effective parenting and also whether BCEs moderated the association between negative childhood LTE and each parenting outcome. The first step in each hierarchical linear regression consisted of the covariates (study year, age, gender, receptive vocabulary,

distress). The second step in each hierarchical linear regression included negative childhood LTE and BCEs, and the third step included the interaction between BCEs and negative childhood LTE. Before computing the interaction term, BCEs and negative childhood LTE were mean-centered to reduce multi-collinearity. For the regressions that included the imputed data, the Log Likelihood Test was used to determine if each step in the model improved the fit of the parameter estimates to the data in association with perceived parenting effectiveness and observed effective parenting. When the regressions were computed using listwise deletion, an ANOVA was used to determine if each step in the model explained significantly more variance in perceived parenting effectiveness and observed effective parenting. The residual scatterplots of each model were inspected and indicated that the assumptions were met for linear models. Inspection of the visual plots revealed several outliers (> 2 standard deviations). These cases also had a relatively higher Cook's Distance compared to the rest of the sample, which suggested that they may artificially inflate the relationship between study variables (Cook & Weisberg, 1982; Rawlings, 1988). After inspecting each individual outlier, a pattern emerged such that the majority of these cases endorsed either the minimum or maximum number of negative childhood LTE or BCEs. However, sensitivity analyses with and without these cases indicated that these outliers did not significantly affect the results and were therefore retained in the sample for the analyses.

To address the third exploratory aim examining BCEs timing, each BCE item was recoded to be present (1) or absent (0) in early to middle childhood (ages 0 - 12) and/or adolescence (ages 13 - 18). The items were then summed within each time period to create two total BCEs scores in early to middle childhood and adolescence. The rationale for collapsing early and middle childhood was due to the high consistency in total BCEs across these two time

periods (Pearson's $r = .73, p < .001$) and less continuity between early and middle childhood with adolescence (Pearson's $r = .42 - .45, p < .001$). The association between BCEs in each time period with perceived parenting effectiveness and observed effective parenting were further examined in four separate hierarchical linear regressions controlling for the covariates and negative childhood LTE. Of note, the descriptive results of BCEs by developmental period were reported by early childhood (ages 0 – 5), middle childhood (ages 6 – 12), and adolescence (ages 13 – 18) because this is consistent with the one prior study that examined BCEs timing (Merrick et al., 2020).

Results

Descriptive Characteristics of the Sample

Caregivers sought residence in an emergency shelter for multiple reasons (see Table 2). The most commonly endorsed reason was unaffordable rent ($n = 71$ (58.2%)). Other reasons for seeking shelter included relationship problems ($n = 39$ (32.0%)), voluntary move to a different city or state ($n = 39$ (32.0%)), neighborhood violence ($n = 33$ (27.0%)), unsafe housing ($n = 27$ (22.1%)), loss of employment ($n = 22$ (18.0%)), left by the person supporting them ($n = 18$ (14.8%)), living with someone with a drinking or drug problem ($n = 18$ (14.8%)), foreclosure on rented home ($n = 11$ (9.0%)), housing damaged by fire or disaster ($n = 8$ (6.6%)), or the caregiver endorsed a drinking or drug problem ($n = 7$ (5.7%)). On average, each caregiver had three children ($M = 2.9, SD = 1.7, \text{range} = 1 - 9$), and 35 (28.7%) had their first child when they were younger than 18 years old (see Table 3). The majority of the caregivers were never married ($n = 95$ (77.9%)) and did not reside with a partner in shelter ($n = 94$ (77.0%)). Approximately 43

(35.2%) earned less than a high school diploma, and 89 (73.0%) were unemployed at the time of the study.

Descriptive Characteristics of BCEs

On average, caregivers endorsed 7.8 BCEs ($SD = 2.2$, range = 0 – 10). Almost all caregivers who completed this measure endorsed at least one BCE ($n = 113$ (99.1%)). The majority of caregivers endorsed 6 or more BCEs ($n = 97$ (85.1%)) while only 14.9% endorsed 5 or fewer BCEs (see Table 4). As shown in Table 5, the most commonly endorsed BCE was having a caregiver with whom they felt safe with ($n = 106$ (93.0%)). Other commonly endorsed BCE items were having at least one good friend ($n = 101$ (88.6%)), at least one teacher who cared about them ($n = 100$ (87.7%)), and having opportunities to have a good time ($n = 97$ (85.1%)). Approximately 87 (76.3%) of the sample endorsed having an adult—other than the caregiver endorsed in question one that they felt safe with—who could provide support or advice. The least commonly endorsed items were having beliefs that gave them comfort ($n = 85$ (74.6%)), a predictable home routine ($n = 79$ (69.3%)), liking school ($n = 78$ (68.4%)), liking or being comfortable with oneself ($n = 76$ (66.7%)), or having good neighbors ($n = 74$ (64.9%)).

Descriptive Characteristics of Negative Childhood LTE

Negative childhood LTE were highly prevalent among the caregivers in this sample. The majority of caregivers ($n = 100$ (83.3%)) experienced at least one negative childhood LTE (see Table 6), and on average, they endorsed 2.8 negative childhood LTE ($SD = 2.4$, range = 0 – 12). Approximately one-third of the sample endorsed four or more negative childhood LTE ($n = 44$ (36.7%)). The most commonly endorsed negative childhood LTEs were death of another close or important family member ($n = 39$ (32.5%)), lived in a foster home ($n = 33$ (27.5%)), victim of violence ($n = 30$ (25.0%)), lost contact with a parent ($n = 31$ (25.8%)), or homeless or lived in an

emergency homeless shelter ($n = 29$ (24.2%)) (see Table 7). Approximately 20% of caregivers experienced the loss of a parent when they were a child ($n = 22$ (18.3%)) or were incarcerated in a juvenile or adult facility ($n = 22$ (18.3%)). Less than 15% of the sample endorsed any of the other negative childhood LTE (see Table 7).

Correlations

Bivariate correlations using the imputed data for all variables in the regression analyses are presented in Table 8. Parent age and gender were positively associated (Pearson's $r = .42$, $p < .001$) such that male caregivers were older than female caregivers. Caregiver distress was inversely associated with age indicating that older parents endorsed less psychological distress (Pearson's $r = -.22$, $p < .05$). Caregiver distress was also inversely associated with gender (Pearson's $r = -.19$, $p < .05$) indicating that female caregivers endorsed higher psychological distress than males. BCEs were associated with age such that older caregivers endorsed more BCEs (Pearson's $r = .31$, $p < .001$). Observed effective parenting scores were positively associated with receptive vocabulary (PVT) (Pearson's $r = .38$, $p < .001$), and receptive vocabulary (PVT) was positively associated with caregiver distress (Pearson's $r = .20$, $p < .05$). Observed effective parenting was not significantly associated with any other variable included in the regression analyses including perceived parenting effectiveness (Spearman's $\rho = -.06$, $p = n.s.$). BCEs were positively associated with perceived parenting effectiveness (Spearman's $\rho = .23$, $p < .05$). However, BCEs were not significantly associated with negative childhood LTE (Pearson's $r = -.08$, $p = n.s.$). The pattern of results was similar when the correlations were conducted using listwise deletion. However, when only using cases with complete data, BCEs and negative childhood LTE were significantly, inversely associated (Pearson's $r = -.24$, $p < .05$).

(see Supplemental Table 1). Additionally, receptive vocabulary (PVT) was no longer significantly associated with distress (Pearson's $r = .18, p = .07$) (see Supplemental Table 1).

Regressions

Results from the hierarchical linear regressions with the imputed data are presented in Tables 9 and 10. The first hierarchical linear regression tested the main and buffering effect of BCEs in association with perceived parenting effectiveness (see Table 9). The first step in the model included the covariates (study year, age, gender, distress, receptive vocabulary (PVT)), and only caregiver distress was uniquely (negatively) associated with perceived parenting effectiveness ($B = -.03, p < .05$). Step 1 explained 4.7% of the variance in perceived parenting effectiveness. The second step included the main effects of negative childhood LTE and BCEs, explaining an additional 5.3% of variance in perceived parenting effectiveness. BCEs had a unique effect on perceived parenting effectiveness with negative childhood LTE scores controlled ($B = .11, p < .05$), but the results of the Log Likelihood Test indicated that this second step only marginally improved model fit ($\chi^2 = 2.81, p = .06$). The third step included the interaction term between negative childhood LTE and BCEs, which was not significantly associated with perceived parenting effectiveness. This step only explained an additional 1.3% of variance in perceived parenting effectiveness and did not improve model fit ($\chi^2 = 1.36, p = n.s.$). When this hierarchical linear regression was computed using listwise deletion, the overall pattern of results was similar, but there were several differences (see Supplemental Table 2). In the first step, caregiver distress was no longer significantly associated with perceived parenting effectiveness ($\beta = -.18, p = .09$). Additionally, the second step of the model that included negative childhood LTE and BCEs explained significantly more variance in perceived parenting

effectiveness over and above the first step that only consisted of the covariates ($\Delta R^2 = 13.5\%$, $p < .01$).

The second hierarchical linear regression included the same predictor variables but in association with observed effective parenting (see Table 10). The first step, which consisted of the covariates, explained 16.3% of the variance in observed effective parenting; parent receptive vocabulary ability (PVT) was the only predictor uniquely associated with observed effective parenting controlling for the other variables in step 1 ($B = .03$, $p < .001$). The second step, which included negative childhood LTE and BCEs, explained an additional 2.2% of variance in observed effective parenting and did not improve model fit ($\chi^2 = .49$, $p = \text{n.s.}$). Similarly, in the third step, the inclusion of the interaction term between negative childhood LTE and BCEs only explained an additional 2.2% of variance in observed effective parenting and did not improve model fit ($\chi^2 = 1.42$, $p = \text{n.s.}$). When this hierarchical linear regression was computed using listwise deletion, the pattern of results was similar (see Supplemental Table 3).

Exploratory Analyses

Descriptive Statistics

The prevalence of BCEs varied by developmental period. On average, caregivers endorsed approximately six BCEs in adolescence ($M = 6.0$, $SD = 2.7$, range = 0 – 10) and middle childhood ($M = 5.8$, $SD = 2.8$, range = 0 – 10), and approximately four BCEs in early childhood ($M = 3.7$, $SD = 3.0$, range = 0 – 10). However, the developmental period that BCEs were most commonly endorsed varied by each item (see Table 11). For example, most caregivers endorsed having a caregiver they felt safe with in middle childhood ($n = 93$ (81.6%)) compared to adolescence ($n = 74$ (64.9%)) or early childhood ($n = 68$ (59.6%)). Similarly, more caregivers endorsed beliefs that gave them comfort in middle childhood ($n = 55$ (48.2%)) compared to

adolescence ($n = 49$ (43.0%)) or early childhood ($n = 39$ (34.2%)). The other BCE items that were most commonly endorsed in middle childhood were having a teacher that cared about them ($n = 64$ (56.1%)), having good neighbors ($n = 58$ (50.9%)), and a predictable home routine ($n = 73$ (64.0%)). However, there were several items in which caregivers endorsed more BCEs in adolescence compared to middle or early childhood. This included having at least one good friend ($n = 86$ (75.4%)), liked school ($n = 67$ (58.8%)), having another caring adult that could provide support ($n = 71$ (62.3%)), opportunities for a good time ($n = 82$ (71.9%)), and liking or feeling comfortable with oneself ($n = 71$ (62.3%)).

Even though caregivers endorsed a high prevalence of BCEs during at least one developmental period of their childhood—early, middle, or adolescence—a quarter of caregivers ($n = 28$ (24.6%)) did not endorse experiencing any BCE item across the entirety of their childhood from early childhood through adolescence. Among the 75% who endorsed at least one BCE across their childhood, on average, they endorsed only three experiences across the entirety of their childhood ($M = 3.0$, $SD = 2.8$, range = 0 – 10). When examined by each BCE item, 51 (44.7%) of the caregivers endorsed having a caregiver they felt safe with from ages 0 – 18 (see Table 12). Additionally, across the entirety of their childhood, only 50 (43.9%) endorsed a predictable routine, 49 (43.0%) endorsed liking school, 40 (35.1%) endorsed opportunities to have a good time, 39 (34.2%) endorsed liking or feeling comfortable with themselves, and 30 (26.3%) endorsed having at least one good friend. Across the entirety of their childhood, less than a quarter of the sample endorsed having good neighbors ($n = 26$ (22.8%)), having an adult—other than the caregiver endorsed in question one that they felt safe with—who could provide support or advice ($n = 24$ (21.1%)), beliefs that gave them comfort ($n = 18$ (15.8%)), or a teacher who cared about them ($n = 14$ (12.3%)).

Correlations

BCEs endorsed in early and middle childhood were strongly correlated with each other (Pearson's $r = .73, p < .001$). The associations between BCEs in early childhood and adolescence (Pearson's $r = .45, p < .001$) and BCEs in middle childhood and adolescence (Pearson's $r = .42, p < .001$) were relatively weaker. Therefore, to reduce the number of comparisons, total BCEs in early and middle childhood were combined into one developmental period. Bivariate correlations using imputed data were used to examine the associations between BCEs by developmental period with the other key study variables (see Table 13). BCEs endorsed in early to middle childhood were moderately associated with BCEs endorsed in adolescence (Pearson's $r = .38, p < .001$). Similar to total BCEs, BCEs endorsed in early to middle childhood (Pearson's $r = .26, p < .01$) and adolescence (Pearson's $r = .23, p < .05$) were significantly associated with age such that older caregivers endorsed more BCEs in each time period. BCEs endorsed in adolescence were significantly associated with perceived parenting effectiveness (Spearman's $\rho = .22, p < .05$) while BCEs endorsed in early to middle childhood were not significantly associated with perceived parenting effectiveness (Spearman's $\rho = .10, p = \text{n.s.}$). Neither BCEs endorsed in early to middle childhood nor adolescence were significantly associated with observed effective parenting. The pattern of results was similar when the correlations were conducted using listwise deletion. However, when only using cases with complete data, BCEs endorsed in adolescence were significantly associated with study year (Pearson's $r = .21, p < .05$) (see Supplemental Table 4).

Regressions

BCEs endorsed in early to middle childhood and adolescence were further explored in four separate hierarchical linear regressions in association with perceived parenting effectiveness

and observed effective parenting (see Tables 14 – 17). The three steps in each model were identical to those in the main analyses. The first step included the covariates (study year, age, gender, distress, receptive vocabulary (PVT)), the second step included negative childhood LTE and BCEs (either endorsed in early to middle childhood or adolescence), and the third step included the interaction between negative childhood LTE and BCEs (either endorsed in early to middle childhood or adolescence). After controlling for the covariates and negative childhood LTE, BCEs endorsed in early to middle childhood were not significantly associated with perceived parenting effectiveness or observed effective parenting and did not buffer the association between negative childhood LTE with either parenting outcome (see Tables 14 & 15). BCEs endorsed in adolescence were significantly associated with perceived parenting effectiveness ($B = .07, p < .05$) (see Table 16). However, the second step that included negative childhood LTE and BCEs endorsed in adolescence only explained an additional 3.9% of variance in perceived parenting effectiveness and did not significantly improve model fit to the data ($\chi^2 = 2.11, p = n.s.$). The third step included the interaction term between negative childhood LTE and BCEs endorsed in adolescence and was not significantly associated with perceived parenting effectiveness. This step only explained an additional .10% of variance in perceived parenting effectiveness and did not improve model fit to the data ($\chi^2 = .03, p = n.s.$). Additionally, BCEs endorsed in adolescence were not significantly associated with observed effective parenting and did not buffer the association between negative childhood LTE and observed effective parenting (see Table 17). The pattern of results for these four regressions was similar when conducted using listwise deletion (see Supplemental Tables 5 - 8). Overall, the results from the exploratory analysis indicated that BCEs endorsed in adolescence had a small association with perceived parenting effectiveness when controlling for the covariates and negative childhood LTE, which

was similar to the findings from the main analysis that included BCEs endorsed anytime in childhood.

Discussion

The present study examined BCEs as a resilience factor for parenting in the context of family homelessness, testing for promotive and protective effects on the risk of negative childhood LTE for parenting effectiveness. The purpose of this study was to fill an important gap in the literature about BCEs in association with parenting by studying this construct in the context of homelessness and by using a subjective measure of perceived parenting effectiveness as well as an independent measure of observed effective parenting. It was expected that BCEs would be positively associated with both perceived parenting effectiveness and observed effective parenting and moderate the association between negative childhood LTE with each measure of parenting. An exploratory analysis was also conducted to examine if there were differential effects of BCEs based on when these experiences were endorsed in childhood for perceived parenting effectiveness and observed effective parenting. The hypotheses were partially supported.

Negative Childhood LTE and BCEs

Consistent with the broader literature among adults experiencing homelessness, caregivers in the present study experienced high levels of both acute and chronic risks (Cutuli & Herbers, 2014; Haskett & Armstrong, 2019). Based on their retrospective report of childhood experiences, caregivers endorsed an average of three negative childhood LTEs and the majority endorsed at least one negative childhood LTE, which is consistent with findings from a recent meta-analysis examining the prevalence of ACEs among adults experiencing homelessness (Liu et al., 2021). More recently, caregivers endorsed risks associated with extreme poverty, and

common precipitants to the current episode of homelessness included an inability to afford rent or safety concerns pertaining to their relationships or in the community (Haskett & Armstrong, 2019). Despite the high prevalence of acute and chronic risks, caregivers also endorsed an average of 8 out of 10 BCEs. The prevalence of BCEs in this sample was similar to other studies with individuals experiencing higher levels of risk including those with a known trauma history (Karatzias et al., 2020) and adults who were incarcerated (Almeida et al., 2022). Consistent with the broader literature, the high prevalence of BCEs among caregivers with a history of early life adversity provides evidence that adverse and positive experiences co-exist and that one does not necessarily reflect the absence of the other (Guo et al., 2022; Karatzias et al., 2020; King et al., 2021; Narayan et al., 2018). Further, this study indicated little association between negative childhood LTE and BCEs, which differs from prior studies that documented a small to moderate inverse association between retrospective reports of childhood adversity and BCEs (e.g., King et al., 2022). The lack of association found in the present study could be related to differences in measurement. Measures of childhood adversity that are weighted toward indicators of maltreatment and family disruption, such as the ACE measure, may be more indicative of childhood circumstances that undermine PCEs. The LTE questionnaire included a single question about being a victim of violence, and thus there were fewer items that asked about different types of maltreatment compared to other questionnaires that are commonly used in the study of PCEs. It will be important in future work to study how the nature of adverse childhood experiences assessed in cumulative risk scores could influence the association of such scores with measures of PCEs.

Perceived Parenting Effectiveness & Observed Effective Parenting

Similar to prior research that only included families experiencing homelessness, there was considerable variability in parenting by either self-report or observation. On average, caregivers reported high levels of perceived parenting effectiveness whereas there was a more normal distribution of scores for observed effective parenting. While prior research has found that caregivers experiencing homelessness, compared with housed mothers, displayed less effective parenting practices (Koblinsky et al., 1997) and rated less confidence in the parenting role (Lee et al., 2010), it is important to recognize that parenting is widely viewed as a buffered system (Belsky et al., 1984). Other studies have found that parents experiencing homelessness reported better caregiver-child interactions and developmental stimulation (Howard et al., 2009) or no significant group differences in regard to punishment, affect, praise, and routines compared to low-income but stably-housed caregivers (Easterbrooks & Graham, 1999). While these multi-group studies help to elucidate the unique challenges about the context of homelessness—in addition to poverty-related stressors—this approach can obscure within-group heterogeneity among parents in shelters (e.g., Swick & Williams, 2010). The findings from the current study corroborate past research documenting the wide diversity in parenting practices among caregivers experiencing homelessness and highlight the importance of a strength-based approach when examining the protective factors of parenting in the context of homelessness (Haskett & Armstrong, 2019).

In the present study, there was little or no association between perceived parenting effectiveness and observed effective parenting. Prior research has found that parents' self-report about their efficacy as a parent was moderately associated with various measures of parenting competence (Jones & Prinz, 2005) including a study of parenting in the context of homelessness

(Gewirtz et al., 2009). Based on these prior findings, it was unexpected to find no association between perceived parenting effectiveness and observed effective parenting. However, in the present study, the self-report index of parenting was based on a single item. This one-item question about perceived parenting competence (“how well are you doing as a parent?”) may capture a different underlying construct than other subjective measures of parenting. For instance, the review paper by Jones & Prinz (2005) specifically examined the association between perceptions about parental self-efficacy and parenting behaviors. Parenting efficacy has been defined as “the extent to which parents believe they can influence the context in which their child is growing” (Shumow & Lomax, 2002, p. 127). These beliefs are very important for parenting and have been associated with both effective parenting practices (Gewirtz et al., 2009) and key determinants of parenting such as psychological distress (Halpern & McLean, 1997). However, the question included in the present study did not assess efficacy, but rather invited a judgment about parenting competence, which may not encompass perceptions of their agency to enact change through their parenting practices. Additionally, even though this question has been used in prior research to create a parenting composite that was corroborated by independent observers (Shaffer et al., 2009), the majority of caregivers in this study reported high self-ratings of their parenting. Consequently, this limited variability and skewed distribution could reduce its covariance with other measures.

Alternatively, the association between self-report and an observational measures of parenting may depend on individual and contextual characteristics. In one of the few studies to examine patterns of agreement between self-report and an observational measure of parenting, Herbers & colleagues (2017) did not find a direct association between self-reported parenting effectiveness and observed parenting practices. In this study, the measure of perceived parenting

effectiveness included questions that pertained to how well the caregiver coped with their child's negative emotions as well as their use of harsh and inconsistent discipline strategies. The measure of observed parenting practices encompassed ratings of both negative and positive control. Rather than direct associations, pertinent individual and contextual characteristics moderated the association, and the agreement between these two measure of parenting was weaker among parents with higher distress and lower socioeconomic status (Herbers et al., 2017). While it is plausible that the lack of agreement between these measures was due to the conceptual mismatch between the self-report items and the coding scheme for the observational measure of parenting, other reasons may include response bias related to caregiver distress, social desirability, or the parents' interpretation of their parenting behaviors (Herbers et al., 2017). Even though further investigation is warranted, these findings underscore the importance of including pertinent covariates such as caregiver distress in studies utilizing self-report measures of parenting, especially in contexts such as homelessness.

BCEs & Parenting

Consistent with the hypotheses, BCEs had a small, direct association with perceived parenting effectiveness. Research conducted in contexts other than homelessness have shown associations of BCEs with constructs related to parenting including reflective functioning (Håkansson et al., 2018) and parenting attitudes (Morris et al., 2021). This finding also corroborated research from intervention studies that rest on the premise that actively recalling positive memories during childhood—especially pertaining to important attachment relationships—is a malleable target to integrate positive experiences into their current caregiving practices (Fraiberg et al., 1975; Ghosh Ippen et al., 2011; Lieberman et al., 2005). It is important to note that while BCEs was significantly associated with perceived parenting effectiveness, the

inclusion of BCEs and negative childhood LTE only marginally improved the fit of the model after controlling for the covariates, which suggests that BCEs' effect on perceived parenting effectiveness was minimal. Additionally, contrary to the hypotheses, no moderating effect of BCEs were observed against risks to perceived parenting effectiveness related to childhood adversity. This result is inconsistent with other studies that have detected PCEs as a buffer of ACEs in association with psychological distress (Kuhar & Kocjan, 2021; Rodriguez et al., 2022) and harsh parenting attitudes (Morris et al., 2021). The one other study that examined BCEs in the context of homelessness only examined its direct effects in association with psychological distress (Merrick et al., 2019), but no known research to date aside from the present study has examined whether BCEs attenuated an association between childhood adversity and an outcome in adulthood such as parenting in this context. Therefore, future research in the context of homelessness is needed to determine whether methodological limitations such as study sample size or the measurements used in the present study limited the sensitivity to detect a moderating effect (McClelland et al., 1993).

Contrary to hypotheses, BCEs were not associated with observed effective parenting, and no interaction was found between BCEs and negative childhood LTE in association with observed effective parenting. While it was expected that BCEs would be positively associated with observed effective parenting based on perspectives from developmental psychopathology (Cicchetti, 2013)—and empirical research on the study of PCEs in association with measures of parenting (e.g., Håkansson et al., 2018; Morris et al., 2021)—this was the first study to examine BCEs in association with an independent measure of parenting generated from observational coding, either in low or high-risk contexts. Additionally, it was unexpected to find no association between negative childhood LTE and parenting in the present study. There is a large body of

research that has found associations between childhood adversity and parenting practices (e.g., Greene et al., 2020; Madigan et al., 2019; Savage et al., 2019) including studies that used a cumulative measure of ACEs (e.g., Rowell & Neal-Barnett, 2022). However, past research examining childhood adversity in association with measures of observed parenting in the context of homelessness are mixed. For instance, Narayan & colleagues (2017) found no association between ACE scores and observed parent negativity or harshness.

Given the high levels of chronic and acute risk exposure in families experiencing homelessness, it is plausible that more recent challenges that co-occur with homelessness may be more salient predictors of parenting compared to experiences of childhood adversity (e.g., Perlman et al., 2012). Additional research with larger sample sizes is needed to further test this hypothesis. In addition, similar to the possibility that more recent stressors may be a stronger predictor of parenting than childhood experiences of adversity, it is also possible that contemporaneous resilience factors are more protective of parenting in the context of homelessness. For instance, prior research has found that effective parenting practices among parents experiencing homelessness were related to motivation to overcome hardships associated with homelessness (Andrade et al., 2020) or parenting self-efficacy (Gewirtz et al., 2009). In addition to motivation and self-efficacy beliefs, cognitive capacities are also key assets for parenting across low and high-risk contexts (e.g., Crandall et al., 2015; Lucke et al., 2021). In the present study, verbal ability assessed by receptive vocabulary was a significant predictor of observed effective parenting (see Figure 1). Results of prior research with families experiencing homelessness are consistent with this finding; parent verbal ability, executive functioning skills (Monn et al., 2017), and emotion regulation skills (Palmer et al., 2020) have been associated with observed effective parenting practices. Additionally, in a study considering influences across

different levels of the environment, Marra & colleagues (2009) found that mothers experiencing homelessness who had greater social support engaged in more consistent parenting practices with their coparent. Together, these studies suggest that parenting is multiply determined by interactions involving the parent, child, and broader social context in which the parent-child relationship is embedded. Therefore, it is important to consider these dynamic influences across multiple levels of the environment to identify salient protective factors of parenting.

It is also possible that measurement issues affected the findings related to BCEs and the two measures of parenting. Caregiver distress was included as a covariate to help control for the negative response bias that can confound the associations between self-report measures (Gotlib et al., 1998). In the present study, both BCEs and caregiver distress were associated with perceived parenting effectiveness, but neither had a significant association with the measure of observed effective parenting. Therefore, it is possible that the elevated stress associated with homelessness contributed to the caregiver's negative perception of their parenting practices, which was reflected by their self-report about their parenting effectiveness, as well as their recollections of childhood experiences (Gotlib et al., 1988). However, it is important to note that BCEs maintained its significance in association with perceived parenting effectiveness even when controlling for caregiver distress. This suggests that BCEs explained unique variance—although minimal—in perceived parenting effectiveness that was not accounted for by their psychological state.

BCEs Developmental Timing

When BCEs were examined by developmental period, the results revealed that all but one caregiver who completed this measure endorsed at least one BCE during some point in their childhood. However, upwards of a quarter of caregivers did not endorse any BCE question

across the *entirety* of their childhood from early childhood through adolescence. Additionally, among the 75% who endorsed a BCE item across their childhood at least once, they endorsed an average of only three experiences across the entirety of their childhood. These results provide novel information about the developmental timing of BCEs among adults experiencing homelessness and suggest that caregivers had few opportunities to consistently experience positive experiences in childhood. This study also found that BCEs were relatively more common in middle childhood and adolescence compared to early childhood, which is consistent with the one other study that examined BCEs timing among pregnant individuals (Merrick et al., 2020).

There are several plausible reasons that may explain why BCEs were more commonly endorsed in middle childhood and adolescence compared to early childhood. Several of the BCE items are more relevant for older children. For instance, older children are more likely to participate in a wider range of extracurricular activities, which generates access to other important adults (e.g., coaches). Additionally, as children gain greater autonomy in adolescence, they start to spend more time with friends, and the importance of these relationships increase compared to early childhood. Similarly, in early childhood, some children have not yet started school, and thus questions pertaining to their experiences in school or with teachers were not relevant for this developmental period. Alternatively, it is reasonable to expect that fewer BCEs were endorsed in early childhood due to the process of memory consolidation, which is especially pertinent to memories in early childhood given the progression of brain development (Danese et al., 2020).

When examined by developmental period, only BCEs endorsed in adolescence were associated with perceived parenting effectiveness, and neither BCEs endorsed in early to middle

childhood nor adolescence were associated with observed effective parenting. However, similar to the main analysis that included BCEs endorsed anytime in childhood, BCEs endorsed in adolescence also had a relatively small effect on perceived parenting effectiveness. Based on prior research, it was expected that BCEs endorsed in early to middle childhood would be significantly associated with both measures of parenting. However, the one prior study that found differential effects for BCEs in early childhood compared to later in development studied its association with outcomes related to women's psychological and reproductive health (Merrick et al., 2020). Given the exploratory nature of this study aim, additional research is needed to replicate BCEs timing especially in the context of homeless with an outcome such as parenting.

It is also important to consider that experiences in adolescence may hold particular significance for outcomes in adulthood. Even though early experiences influence subsequent developmental trajectories (Cicchetti, 2013), there is growing research supporting adolescence as a period of plasticity (Schriber & Guyer, 2016). For instance, the combination of neuroplasticity with increasing individuation and autonomy creates a window of opportunity to benefit from new experiences (Malhi et al., 2019). Even though plasticity reflects sensitivity to both positive and negative experiences, adaptive change is possible especially if adolescents gain access to positive inputs (e.g., supportive relationships) and create separation from possible family dysfunction. Shifting a developmental trajectory towards adaptation is especially important during adolescence as it supports learning new skills that are needed to manage the increased demands of adulthood (Williams & Sheehan, 2015). Youth with a history of adversity often lack the resources to successfully navigate the transition to adulthood (Scannapieco et al., 2007), but the onset of positive experiences during adolescence—especially with supportive adults—can support a successful transition including adolescents experiencing housing instability (Bassuk,

2010). Additionally, Thompson & colleagues (2013) found that an important resilience factor for emerging adults experiencing housing instability was belief in their personal strengths.

Therefore, it is plausible that nurturing these attitudes during adolescence carries forward and generalizes to their beliefs about their effectiveness as a parent in adulthood.

Strengths and Limitations

This study has several notable strengths as it was the first to examine BCEs in the context of homelessness in association with two measures of parenting, including an independent measure based on observational ratings of structured interactions. Even though several decades of resilience research has identified important protective factors that support adaptation in the context of adversity (e.g., Masten et al., 2021), little is known about the role of PCEs in positive adaptation, especially in regard to parenting. Additionally, in the existing literature, there are only a handful of studies that have examined the promotive and protective effects of PCEs in association with parenting, and none used an observational measure of parenting nor were conducted in the context of homelessness. The inclusion of an independent measure of parenting behaviors was important—especially in a high-stress context—to address response bias that can confound the association between self-report questionnaires. Additionally, it is important to broaden the scope of investigation of BCEs across different contexts—especially among families experiencing homelessness—to elucidate how the role of BCEs may differ based on varying levels of acute and chronic risks. Furthermore, there is only one other published study to date that has examined the developmental timing of BCEs. Consistent with the perspective of developmental psychopathology, early experiences hold significance for later adaptation, but plasticity is possible throughout development (Cicchetti, 2013). Therefore, the importance of BCEs may depend on its developmental timing, which is important to understand along with

whether a given number or combination of positive experiences are critical for healthy adjustment (Hamby et al., 2018).

Despite these strengths, this study also had several limitations. Study recruitment among families experiencing homelessness is challenging due to high residential mobility, which often results in studies with small sample sizes. Therefore, despite pooling the sample from two separate studies, the sample size remained relatively small, which limited the ability to detect smaller effects. Additionally, the families included in the present study were from one shelter in an urban, Midwestern city. Although this shelter is one of the largest in the Midwest and also houses the majority of families who reside in emergency shelters in this urban area, a study focused on one shelter limits generalizability, especially in regard to families experiencing other types of housing instability such as those doubled-up with relatives or friends. Furthermore, the cross-sectional study design restricted inference about the determinants of parenting.

An additional limitation was the use of a single-item measure of perceived parenting effectiveness. Single-item measures often have low content validity and poor sensitivity to detect differences (Churchill, 1979). It is also not possible to measure the internal consistency of single-item measures because several items are needed to correlate with each other (Peter, 1979). However, there are arguments against the need to establish internal reliability that are based on the premise of predictive validity (Cronbach, 1961). It is argued that unreliable measures cannot have high predictive validity, and thus single-item measures that show similar predictive validity when compared to multiple-item measures are sufficient (Cronbach, 1961). In addition, prior research has examined single vs. multiple-item measures about attitudes and found no differences in predictive validity (Bergkvist & Rossiter, 2002). Nevertheless, it is important to recognize that the results are mixed, and the majority of studies have found evidence in favor of

multiple-item vs. single-item scales (Diamantopoulos et al., 2012). Moreover, the majority of caregivers reported high parenting effectiveness, and this lack of variation made it difficult to detect meaningful individual differences or associations with other variables.

Additionally, perceived parenting effectiveness was gathered with a self-report question. While this approach is feasible and quick to administer—both important considerations in the context of homelessness—caregiver responses were subject to reporter bias. As previously noted, to attempt to control for reporter bias, caregiver distress was included as a covariate, but this measure may not have fully accounted for the elevated stress that caregivers endure while experiencing homelessness that may contribute to a negative bias of their parenting practices (Gotlib et al., 1988). However, attitudes about one’s effectiveness as a parent is highly subjective, and thus future research with measures that triangulate parent self-report (e.g., questionnaires, interviews, observation) could capture a more complete picture of how perceived parenting relates to other indices of parenting and the role it may play in psychological wellbeing of parents experiencing adversity (Morsbach & Prinz, 2006).

While a strength of the present study included observational ratings of parenting, this method is not exempt from limitations. The nature of the interaction tasks may be unnatural for families, and the presence of an observer or recording equipment may affect how parents interact with their children (Gardner, 2000). Additionally, parenting practices are influenced by the context in which they are embedded. Even though the measure of observed effective parenting used in the present study was validated among homeless and highly mobile families (Gewirtz et al., 2009), it is important to consider how the same underlying construct (e.g., warmth) varies across contexts. For instance, Magnusson & Duncan (2002) found that caregivers were more likely to engage in protective parenting strategies when there was a greater risk of physical

danger to their children compared to caregivers who lived in more affluent neighborhoods that did not encounter frequent threats to safety. Parenting strategies that compensate for the risks that arise in underserved neighborhoods often appear as less warm, greater monitoring, and harsher disciplinary strategies (Leventhal & Brooks-Gunn, 2000; O’Neil et al., 2001).

Consequently, parenting behaviors that are more adaptive in the context of homelessness may be perceived as less effective based on coding schemes developed for different and possibly lower-risk populations. Even though the measure of observed parenting practices used in the present study has shown convergent and predictive validity among caregivers experiencing relatively high levels of risk (e.g., Forgatch & DeGarmo, 1999), it is important for future research to establish measurement invariance for both self-report and observational measures across contexts and with diverse individuals (Bornstein et al., 2016).

Additional limitations pertain to the measure of childhood adversity and BCEs. Caregivers reported about both types of experiences retrospectively, which are subject to response bias or false recollections (Hardt & Rutter, 2004) and have less accuracy than prospective measures (e.g., records, reports, or mixed measures) of childhood adversity (Baldwin et al., 2019). There are numerous reasons that may explain the poor agreement between retrospective and prospective reports including motivation, poor reliability of prospective and retrospective measures, or limitations in memory (Danese et al., 2020). Additionally, prior research examining prospective vs. retrospective reports of parenting quality found that concurrent influences—depressive symptoms and family closeness—accounted for more variance in retrospective reports than did prospective measures (Nivison et al., 2021). However, the poor agreement between retrospective and prospective reports does not discredit retrospective recall of childhood experiences (Danese et al., 2020). For instance, certain

experiences may not be captured in prospective measures and findings from a meta-analysis found that the agreement between retrospective and prospective reports was higher in studies with smaller sample sizes that likely used more detailed measures (Baldwin et al., 2019). Additionally, the subjective recall of childhood experiences still has important implications for current adaptation regardless of the pristine accuracy of the memory (Danese et al., 2020).

Furthermore, it is important to acknowledge that many items on the LTE and BCEs measures are confounded with competence and are not independent of a child and/or adolescent's behavior. For instance, prior research has found that among adolescents, the association between "non-independent" events (likely or possibly related to the adolescent's own behavior such as incarceration) and adjustment was largely explained by their behavior (Masten et al., 1994). In contrast, the association between uncontrollable negative life events (unlikely to be caused by the adolescent's behavior) and adjustment was lower (Masten et al., 1994). Parenting is an outcome that is strongly related to individual competence, and prior research from a prospective longitudinal study found that the intergenerational continuity in parenting quality was mediated by social competence (Shaffer et al., 2009). Therefore, considering the dependence of a childhood experience in its association with outcomes such as parenting practices would be helpful to account for the role of individual competence. However, there is justification for including negative life events that are confounded with competence especially when experienced during childhood. For example, many adults experiencing homelessness experienced significant adversity in childhood and were likely tasked to adapt to their environment. These stress-adaptive behaviors could be perceived as less competent in lower-risk contexts and may not be indicative of adjustment in more stable environments (e.g., Wadsworth et al., 2018). Furthermore, from childhood to adulthood there are opportunities for

developmental trajectories to shift towards competence, which is consistent with the principle of multifinality (Cicchetti, 2013).

Future Directions

Further research is needed to understand the role of PCEs in development and more specifically the role of cumulative PCEs on later parenting. Measures of PCEs are not fully developed at this time. The BCEs scale, for example, is currently being refined by the developers of this instrument. Data on the psychometric properties of measures for PCEs remains limited and the dimensional structure of PCEs has been largely unexamined. Additional research is needed on whether the type of BCEs matters for various dimensions of individual adjustment, which also warrants a broader investigation of childhood experiences. Moreover, longitudinal study designs with repeated measurement over time would improve the rigor of the research on BCEs.

Type of BCEs

There were differential associations between BCEs and perceived parenting effectiveness based on timing in childhood. However, no study to date has considered whether the type or combination of BCEs is especially important for positive adjustment and parenting. This is an important question that warrants future exploration. In the broader literature about childhood adversity, McLaughlin & colleagues (2014) found unique psychobiological mechanisms for deprivation versus threat on a host of outcomes. Similarly, in the context of homelessness, differentiating ACEs into categories of exposure to maltreatment versus family dysfunction revealed children who were exposed to maltreatment, but not family dysfunction, had greater socioemotional problems (Narayan et al., 2017). Therefore, it is plausible that the type of positive childhood experience may also hold unique importance for long-term developmental

outcomes. On the BCEs scale, several items capture resources more internal to the individual including one's belief about self or spirituality. In contrast, other items pertain to external supports such as a safe caregiver, good neighbors, or a predictable routine. With a larger sample size, an analytic approach such as a factor analysis could elucidate whether there are items on the BCEs scale that share common variance. Furthermore, it is important to understand whether the type of BCE has the same protective effect across contexts. For instance, Liu & colleagues' (2020) person-centered approach found four latent classes of PCEs—high protection, low safety, low community resources, low family and school resources—that had different protective effects based on race and ethnicity. Broadening the inclusivity of research on PCEs with individuals that hold diverse identities (e.g., race, ethnicity, gender, sexual orientation) and across contexts will help to elucidate important individual differences for the impact of PCEs.

Broadening the Scope of Childhood Experiences

Despite the pervasiveness of racism and its adverse effects on child development for Black, Indigenous, and people of color (Came & Griffith, 2018; Trent et al., 2019), many questionnaires that assess childhood adversity do not have a question about racial discrimination. The adverse effects of racism on child mental and physical health are significant (e.g., Neblett et al., 2012; Paradies et al., 2015), and in pursuit of the eradication of racism, it is simultaneously important to identify protective factors that buffer children from the harmful effects of racism. Prior research has found that ethnic racial identity (ERI) is an important protective factor that buffers the negative effects of ethnic and racial discrimination (Rivas-Drake et al., 2014), and that ethnic-racial socialization (ERS) practices support ERI development (Hughes et al., 2006). While questionnaires like the BCEs scale ascertain about beliefs about oneself and self-esteem, there is not a specific question pertaining to one's beliefs about their racial or ethnic identity or

exposure to ERS in childhood. Therefore, an important next step is to include questions about racism in measures of adversity and protective factors such as ERI or ERS in measures of PCEs. This is especially relevant in the context of homelessness as racial and ethnic minorities are disproportionately overrepresented due to the pernicious effects of discrimination on housing (e.g., housing availability, evictions, wealth accumulation) (Came & Griffith, 2018; Thomas et al., 2020). Furthermore, understanding an individual's history of ERI development through processes such as ERS in childhood may inform current parenting practices as there is evidence for the intergenerational transmission of cultural socialization (Ayón et al., 2020).

Longitudinal Analysis

As previously noted, a cross-sectional study design restricts inference about the determinants of parenting, but there are many barriers to conducting longitudinal studies in the context of homelessness due to high residential mobility. However, it will be important for prospective longitudinal studies to validate the BCEs scale similar to ways that it has been done in the study of adversity (e.g., Danese et al., 2020). A longitudinal approach would also create opportunities to examine more proximal, mediating mechanisms of BCEs. For example, while BCEs were not associated with an observed measure of parenting practices in the present study, prior research has found that BCEs were associated with reflective functioning (Håkansson et al., 2018). Reflective functioning is very important for parenting practices and is a key mechanism of change in parenting interventions such as Child Parent Psychotherapy (Ghosh Ippen et al., 2011). Additionally, many of the existing studies on BCEs has examined its association with a measure of psychological distress in adulthood, which is a well-replicated determinant of parenting practices (e.g., Conger et al., 2000). Therefore, it is plausible that BCEs has indirect

effects on parenting practices through key determinants such as reflective functioning or psychological well-being.

Implications for Policy & Practice

There is growing recognition that policy changes are vital to the goal of structural changes that will both reduce the need for families to use emergency homeless shelters and support access to affordable housing, especially among marginalized families (e.g., Cutuli & Herbers, 2014; Fowle, 2022; Shinn & Khadduri, 2020). Until affordable and stable housing is accessible to all families, it is also important to prioritize feasible and evidence-based interventions that support caregivers and families experiencing homelessness. Findings from a qualitative systematic review of parenting interventions in shelter settings found that such interventions were feasible and well-received, but there was an inconsistent use of evidence-based practices (Haskett et al., 2016). When conceptualizing the design of shelter supports, it is important to take a strengths-based and collaborative approach that incorporates caregiver perspectives (Cutuli & Herbers, 2014). Taking an individual approach with shared decision-making—rather than a general solution—is integral to both meet the needs of caregivers and to engender their feelings of empowerment in the parenting role (Anderson et al., 2006; Cutuli & Herbers, 2014; Marçal et al., 2021). Supporting empowerment may generalize to perceptions of self-efficacy (Vrabic et al., 2021), which is viewed as an important antecedent of effective parenting practices (Gewirtz et al., 2009).

In addition, there is a growing movement in the field of public health and policy to screen for adults' history of adverse childhood experiences when appropriate follow-up interventions are in place to support those who screen positive on measures like the ACEs questionnaire (e.g., Finkelhor, 2018). Research from the broader literature and the present study provide evidence

that positive experiences co-occur with adversity, and it is important to expand the scope of investigation to consider caregivers' history of positive as well as negative childhood experiences (Merrick & Narayan, 2020). In the context of homelessness, conversations about BCEs between service workers and interested caregivers could be an effective way to encourage caregivers to reflect on how their childhood experiences inform their parenting practices. This is especially relevant because parenthood is a natural stimulator for reflection about childhood experiences, which may help caregivers consider the positive experiences they want to carry forward in their parenting and the negative experiences they would like to leave behind (Slade 2005). With this information, for example, a social worker and caregiver could collaboratively discuss ways to integrate positive experiences into their own child's life. In addition, these kinds of discussions may help identify caregivers with heightened risk for distress or difficulties with parenting in the midst of adversity, including those with a history of high childhood adversity and few positive experiences. Together, interventions that integrate multiple levels of support, are founded on evidence, and also collaborative, hold promise for supporting caregivers, their capacity to parent, and the wellbeing of their children (Cutuli & Herbers, 2014; Shinn & Khadduri, 2020).

Conclusion

This study addressed an important gap in the literature on the role of BCEs for parenting in the context of homelessness that has the potential to inform practice and policy in support of family wellbeing. Findings corroborate evidence that BCEs occur even in contexts with significant adversity. Results also were consistent with past research that found an association between BCEs and parenting attitudes, although the effect in the present study was small. The present study did not find evidence for an association between BCEs and an observed measure of

effective parenting practices. However, parenting is a buffered system, and it is important to broaden the scope of investigation on parenting among parents experiencing homelessness to consider resilience factors across the environment that may support caregivers in this challenging context, including services provided by shelters and schools. This study was one of the first to examine the developmental timing of BCEs and differential associations with measures of parenting in adulthood. Results of this study highlight important areas for future investigation to advance the research on BCEs and opportunities for intervention to support caregivers and their capacity to parent in the context of homelessness.

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Tables

Table 1

Missing Data

Variable	n (%)
Study Year	0 (0%)
Age	0 (0%)
Gender	0 (0%)
Distress	1 (.8%)
Perceived Parenting Effectiveness	1 (.8%)
LTE	2 (1.6%)
PVT	6 (4.9%)
BCEs	8 (6.6%)
Observed Effective Parenting	21 (17.2%)

Note. n = 96 (78.7%) of the sample had complete data. LTE = negative childhood lifetime events. PVT = receptive vocabulary. BCEs = benevolent childhood experiences.

Table 2*Reasons for Seeking Shelter*

Reasons for Seeking Shelter	n (%)
Foreclosure on owned home	2 (1.6%)
Foreclosure on rented home	11 (9.0%)
Lease not renewed	27 (22.1%)
No longer able to afford rent in current place	48 (39.3%)
Could not find affordable rent	71 (58.2%)
Rise in rent	33 (27.0%)
Evicted from housing	37 (30.3%)
Housing damaged by fire or disaster	8 (6.6%)
Fired from job	19 (15.6%)
Laid off from job	22 (18.0%)
Relationship problems	39 (32.0%)
Abusive relationship	30 (24.6%)
Left by the person supporting you	18 (14.8%)
Violence in the neighborhood	33 (27.0%)
Substandard or unsafe housing	27 (22.1%)
Voluntary move to a different city/state	39 (32.0%)
Drinking or drug problem that you had	7 (5.7%)
Drinking or drug problem of someone else living with you	18 (14.8%)
Other	20 (16.4%)

Table 3*Descriptive Characteristics of Caregiver Participants*

Variables	<i>M (SD) or n (%)</i>
Age	31.2 (7.7)
Gender	
Female	105 (86.1%)
Male	17 (13.9%)
Race	
African American	87 (71.9%)
White	13 (10.7%)
Native American or Alaska Native	9 (7.4%)
Multiracial	7 (5.8%)
Other	5 (4.1%)
Hispanic	9 (7.4%)
Education	
Middle School/Junior High School	2 (1.7%)
Some High School	26 (21.5%)
Some High School with GED	15 (12.4%)
High School Graduate	32 (26.4%)
Some College	38 (31.4%)
Associate's Degree	6 (5.0%)
Graduated College	2 (1.7%)
Total Children	2.9 (1.7)
Teenage Parent	35 (28.7%)
Never Married	95 (77.9%)
Living with Partner in Shelter	28 (23.0%)
Relationship to Child	
Biological Mother	105 (86.1%)
Biological Father	15 (12.3%)
Stepfather	2 (1.6%)
Currently Unemployed	89 (73.0%)
PVT	87.8 (16.9)
Distress	9.0 (5.7)
LTE	2.8 (2.4)
BCEs	7.7 (2.2)
Perceived Parenting Effectiveness	4.1 (.96)
Observed Effective Parenting	-.04 (.85)

Note. PVT = receptive vocabulary. LTE = negative childhood lifetime events.

BCEs = benevolent childhood experiences.

Table 4*Total Benevolent Childhood Experiences*

Total BCEs	n (%)
0	1 (.9%)
1	2 (1.8%)
2	1 (.9%)
3	1 (.9%)
4	5 (4.4%)
5	7 (6.1%)
6	12 (10.5%)
7	12 (10.5%)
8	16 (14.0%)
9	33 (28.9%)
10	24 (21.0%)

Note. n = 8 cases had missing data for BCEs. BCEs = benevolent childhood experiences.

Table 5*Prevalence of Each Benevolent Childhood Experience*

BCEs	n (%)
1. Did you have at least one caregiver whom you felt safe with?	106 (93.0%)
2. Did you have at least one good friend?	101 (88.6%)
3. Did you have beliefs that gave you comfort?	85 (74.6%)
4. Did you like school?	78 (68.4%)
5. Did you have at least one teacher who cared about you?	100 (87.7%)
6. Did you have good neighbors?	74 (64.9%)
7. Was there an adult (not a parent/caregiver or the person from #1) who could provide you with support or advice?	87 (76.3%)
8. Did you have opportunities to have a good time?	97 (85.1%)
9. Did you like yourself or feel comfortable with yourself?	76 (66.7%)
10. Did you have a predictable home routine, like regular meals and a regular bedtime?	79 (69.3%)

Note. n = 8 had missing data for BCEs. BCEs = benevolent childhood experiences.

Table 6*Total Negative Childhood Lifetime Events Before Age 18*

Total LTE	n (%)
0	20 (16.7%)
1	25 (20.8%)
2	18 (15.0%)
3	13 (10.8%)
4	22 (18.3%)
5	8 (6.7%)
6	7 (5.8%)
7	1 (.8%)
8	4 (3.3%)
9	0 (0.0%)
10	0 (0.0%)
11	1 (.8%)
12	1 (.8%)

Note. n = 2 cases had missing data for LTE. LTE = negative childhood lifetime events.

Table 7*Prevalence of Each Negative Childhood Lifetime Event Before Age 18*

Negative Childhood Lifetime Event	n (%)
Death of my husband/wife or steady companion	1 (.8%)
Death of one of your parents	22 (18.3%)
Death of a child of yours	4 (3.3%)
Death of a brother or sister	9 (7.5%)
Death of another close or important family member	39 (32.5%)
Divorce or separation of your parents	28 (23.3%)
Lost contact with a parent	31 (25.8%)
Parent hospitalized for problem with drugs or alcohol	11 (9.2%)
Parent hospitalized for mental illness or emotional problem	14 (11.7%)
Parent hospitalized for a physical illness	14 (11.7%)
You were separated	4 (3.3%)
You were divorced	0 (0.0%)
You were convicted of a crime	8 (6.7%)
You were incarcerated in a juvenile or adult facility	22 (18.3%)
You lived in a foster home	33 (27.5%)
You were hospitalized for a problem with drugs or alcohol	2 (1.7%)
You were hospitalized for a mental illness or emotional problem	14 (11.7%)
You were hospitalized for a physical problem	16 (13.3%)
You developed a handicap or disability	4 (3.3%)
You were a victim of violence (assault, kidnapping, or other injury by people)	30 (25.0%)
You were homeless or lived in an emergency shelter	29 (24.2%)

Note. n = 2 cases had missing data for LTE.

Table 8*Correlations of Key Study Variables*

Variable	1	2	3	4	5	6	7	8
1. Study Year	-							
2. Parent Age	-.01							
3. Parent Gender	.09	.42***						
4. Distress	.12	-.22*	-.19*					
5. PVT	-.10	.10	.07	.20*				
6. BCEs	.07	.31***	.14	-.04	-.03			
7. LTE	-.01	-.07	.05	-.04	.07	-.08		
8. Perceived Parenting Effectiveness ^a	.08	-.02	.02	-.14	.08	.23*	.04	
9. Observed Effective Parenting	-.09	.01	.04	.13	.38***	-.04	.15	-.06

Note. Correlations were computed with imputed data. [#] $p < .10$. $*p < .05$. $**p < .01$. $***p < .001$. ^aSpearman's rho presented to account for the ordinal nature of the data; all other correlations were Pearson's r . Study year (0 = 2017; 1 = 2019). Parent gender (0 = female; 1 = male). PVT = receptive vocabulary. BCEs = benevolent childhood experiences. LTE = negative childhood lifetime events.

Table 9*Hierarchical Linear Regression for Benevolent Childhood Experiences and Perceived Parenting**Effectiveness*

Variable	Perceived Parenting Effectiveness					
	Step 1		Step 2		Step 3	
	<i>B</i>	SE	<i>B</i>	SE	<i>B</i>	SE
Step 1						
Study Year	.23	.18	.20	.17	.17	.18
Age	-.01	.01	-.02	.01	-.02	.01
Gender	-.01	.28	-.02	.28	.05	.28
Distress	-.03*	.02	-.04*	.02	-.04*	.02
PVT	.01	.01	.01	.01	.01	.01
Step 2						
LTE	-	-	.01	.04	.02	.04
BCEs	-	-	.11*	.04	.10*	.04
Step 3						
BCEs X LTE	-	-	-	-	.02	.01
ΔR^2	4.7%		5.3%		1.3%	
Total R^2	4.7%		10.0%		11.3%	
Log Likelihood ($\Delta \chi^2$)	-		2.81 [†]		1.36	

Note. Regression computed with imputed data. Unstandardized betas reported. [†] $p = .06$. * $p < .05$.

** $p < .01$. *** $p < .001$. Study year (0 = 2017; 1 = 2019). Parent gender (0 = female; 1 = male).

PVT = receptive vocabulary. BCEs = benevolent childhood experiences. LTE = negative childhood lifetime events.

Table 10*Hierarchical Linear Regression for Benevolent Childhood Experience and Observed Effective**Parenting*

Variable	Observed Effective Parenting					
	Step 1		Step 2		Step 3	
	<i>B</i>	SE	<i>B</i>	SE	<i>B</i>	SE
Step 1						
Study Year	-.12	.17	-.11	.17	-.08	.17
Age	-.01	.01	-.01	.01	-.01	.01
Gender	.11	.23	.08	.24	-.01	.24
Distress	.01	.01	.01	.01	.01	.01
PVT	.03***	.01	.03***	.01	.03***	.01
Step 2						
LTE	-	-	.04	.04	.04	.04
BCEs	-	-	-.01	.05	.01	.05
Step 3						
BCEs X LTE	-	-	-	-	-.02	.01
ΔR^2	16.3%		2.2%		2.2%	
Total R^2	16.3%		18.5%		20.7%	
Log Likelihood ($\Delta \chi^2$)	-		.49		1.42	

Note. Regression computed with imputed data. Unstandardized betas reported. # $p < .10$. * $p < .05$.

** $p < .01$. *** $p < .001$. Study year (0 = 2017; 1 = 2019). Parent gender (0 = female; 1 = male).

PVT = receptive vocabulary. BCEs = benevolent childhood experiences. LTE = negative childhood lifetime events.

Table 11*Prevalence of Each Benevolent Childhood Experience by Developmental Period*

BCE	Early Childhood n (%)	Middle Childhood n (%)	Adolescence n (%)
1. Did you have at least one caregiver whom you felt safe with?	68 (59.6%)	93 (81.6%)	74 (64.9%)
2. Did you have at least one good friend?	33 (28.9%)	72 (63.2%)	86 (75.4%)
3. Did you have beliefs that gave you comfort?	39 (34.2%)	55 (48.2%)	49 (43.0%)
4. Did you like school?	54 (47.4%)	64 (56.1%)	67 (58.8%)
5. Did you have at least one teacher who cared about you?	22 (19.3%)	64 (56.1%)	60 (52.6%)
6. Did you have good neighbors?	33 (28.9%)	58 (50.9%)	56 (49.1%)
7. Was there an adult (not a parent/caregiver or the person from #1) who could provide you with support or advice?	28 (24.6%)	53 (46.5%)	71 (62.3%)
8. Did you have opportunities to have a good time?	46 (40.4%)	68 (59.6%)	82 (71.9%)
9. Did you like yourself or feel comfortable with yourself?	40 (35.1%)	56 (49.1%)	71 (62.3%)
10. Did you have a predictable home routine, like regular meals and a regular bedtime?	59 (51.8%)	73 (64.0%)	66 (57.9%)

Note. n = 8 cases had missing data for BCEs. BCE = benevolent childhood experience. Early childhood included years 0 – 5, middle childhood included years 6 – 12, and adolescence included years 13 – 18.

Table 12*Prevalence of Each Benevolent Childhood Experience Endorsed Across All Developmental**Periods*

BCE	n (%)
1. Did you have at least one caregiver whom you felt safe with?	51 (44.7%)
2. Did you have at least one good friend?	30 (26.3%)
3. Did you have beliefs that gave you comfort?	18 (15.8%)
4. Did you like school?	49 (43.0%)
5. Did you have at least one teacher who cared about you?	14 (12.3%)
6. Did you have good neighbors?	26 (22.8%)
7. Was there an adult (not a parent/caregiver or the person from #1) who could provide you with support or advice?	24 (21.1%)
8. Did you have opportunities to have a good time?	40 (35.1%)
9. Did you like yourself or feel comfortable with yourself?	39 (34.2%)
10. Did you have a predictable home routine, like regular meals and a regular bedtime?	50 (43.9%)

Note. n = 8 cases had missing complete data for BCEs. BCE = benevolent childhood experience.

All developmental periods include ages 0 through 18.

Table 13*Correlations of Benevolent Childhood Experiences by Developmental Period*

Variable	1	2	3	4	5	6	7	8	9
1. Study Year	-								
2. Age	-.01								
3. Gender	.09	.42***							
4. Kessler	.12	-.22*	-.19*						
5. PVT	-.10	.10	.07	.20*					
6. LTE	-.01	-.07	.05	-.04	.07				
7. BCEs EC – MC	.05	.26**	.05	-.08	.01	-.03			
8. BCEs Adol	.16 [#]	.23*	.15 [#]	-.16 [#]	.06	-.07	.38***		
9. Perceived Parenting Effectiveness ^a	.08	-.02	.02	-.14	.08	.04	.10	.22*	
10. Observed Effective Parenting	-.09	.01	.04	.13	.38***	.15	-.06	.01	-.06

Note. Correlations were computed with imputed data. [#] $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$. ^aSpearman's rho presented to account for the ordinal nature of the data; all other correlations were Pearson's r . Study year (0 = 2017; 1 = 2019). Parent gender (0 = female;

1 = male). PVT = receptive vocabulary. BCEs EC – MC = BCEs endorsed in early childhood to middle childhood and included ages 0 – 12. BCEs Adol = BCEs endorsed in adolescence and included ages 13 – 18. LTE = negative childhood lifetime events.

Table 14*Hierarchical Linear Regression for Early to Middle Childhood Benevolent Childhood**Experiences and Perceived Parenting Effectiveness*

Variable	Perceived Parenting Effectiveness					
	Step 1		Step 2		Step 3	
	<i>B</i>	SE	<i>B</i>	SE	<i>B</i>	SE
Step 1						
Study Year	.23	.18	.22	.18	.19	.18
Age	-.01	.01	-.01	.01	-.01	.01
Gender	-.01	.28	-.01	.29	.08	.29
Distress	-.03*	.02	-.03*	.02	-.04*	.02
PVT	.01	.01	.01	.01	.01	.01
Step 2						
LTE	-	-	.02	.04	.03	.04
BCEs EC - MC	-	-	.02	.03	.02	.03
Step 3						
BCEs EC - MC X LTE	-	-	-	-	.03 [#]	.01
ΔR^2	4.7%		.02%		3.5%	
Total R^2	4.7%		4.9%		8.4%	
Log Likelihood ($\Delta \chi^2$)	-		.17		3.5 [#]	

Note. Regression computed with imputed data. Unstandardized betas reported. [#] $p < .10$. * $p < .05$.

** $p < .01$. *** $p < .001$. Study year (0 = 2017; 1 = 2019). Parent gender (0 = female; 1 = male).

PVT = receptive vocabulary. BCEs EC - MC = BCEs endorsed in early to middle childhood and included ages 0 – 12. LTE = negative childhood lifetime events.

Table 15*Hierarchical Linear Regression for Early to Middle Childhood Benevolent Childhood**Experiences and Observed Effective Parenting*

Variable	Observed Effective Parenting					
	Step 1		Step 2		Step 3	
	<i>B</i>	SE	<i>B</i>	SE	<i>B</i>	SE
Step 1						
Study Year	-.12	.17	-.11	.16	-.09	.16
Age	-.01	.01	-.01	.01	-.01	.01
Gender	.11	.23	.09	.24	.03	.24
Distress	.01	.01	.01	.02	.01	.01
PVT	.03***	.01	.03***	.01	.03***	.01
Step 2						
LTE	-	-	.04	.03	.02	.03
BCEs EC - MC	-	-	-.01	.03	-.01	.03
Step 3						
BCEs EC - MC	-	-	-	-	-.02 [#]	.01
X LTE						
ΔR^2	16.3%		1.7%		2.7%	
Total R^2	16.3%		18.0%		20.7%	
Log Likelihood ($\Delta \chi^2$)	-		.53		2.04	

Note. Regression computed with imputed data. Unstandardized betas reported. [#] $p < .10$. * $p < .05$.

** $p < .01$. *** $p < .001$. Study year (0 = 2017; 1 = 2019). Parent gender (0 = female; 1 = male).

PVT = receptive vocabulary. BCEs EC - MC = BCEs endorsed in early to middle childhood and included ages 0 – 12. LTE = negative childhood lifetime events.

Table 16*Hierarchical Linear Regression for Adolescent Benevolent Childhood Experiences and**Perceived Parenting Effectiveness*

Variable	Perceived Parenting Effectiveness					
	Step 1		Step 2		Step 3	
	<i>B</i>	SE	<i>B</i>	SE	<i>B</i>	SE
Step 1						
Study Year	.23	.18	.16	.18	.16	.18
Age	-.01	.01	-.01	.01	-.01	.01
Gender	-.01	.28	-.04	.28	-.05	.29
Distress	-.03*	.02	-.03 [#]	.02	-.03 [#]	.02
PVT	.01	.01	.01	.01	.01	.01
Step 2						
LTE	-	-	.02	.04	.02	.04
BCEs Adol	-	-	.07*	.03	.07*	.03
Step 3						
BCEs Adol X LTE	-	-	-	-	-.01	.01
ΔR^2	4.7%		3.9%		.10%	
Total R^2	4.7%		8.6%		8.7%	
Log Likelihood ($\Delta \chi^2$)	-		2.11		.03	

Note. Regression computed with imputed data. Unstandardized betas reported. [#] $p < .10$. * $p < .05$.

** $p < .01$. *** $p < .001$. Study year (0 = 2017; 1 = 2019). Parent gender (0 = female; 1 = male).

PVT = receptive vocabulary. BCEs Adol = BCEs endorsed in adolescence and included ages 13

– 18. LTE = negative childhood lifetime events.

Table 17*Hierarchical Linear Regression for Adolescent Benevolent Childhood Experiences and Observed**Effective Parenting*

Variable	Observed Effective Parenting					
	Step 1		Step 2		Step 3	
	<i>B</i>	SE	<i>B</i>	SE	<i>B</i>	SE
Step 1						
Study Year	-.12	.17	-.12	.16	-.11	.17
Age	-.01	.01	-.01	.01	-.01	.01
Gender	.11	.23	.09	.24	.06	.24
Distress	.01	.01	.01	.02	.01	.02
PVT	.03***	.01	.03***	.01	.03***	.01
Step 2						
LTE	-	-	.04	.03	.04	.03
BCEs Adol	-	-	.01	.03	.01	.03
Step 3						
BCEs Adol X LTE	-	-	-	-	-.01	.01
ΔR^2	16.3%		1.6%		.07%	
Total R^2	16.3%		17.9%		18.6%	
Log Likelihood ($\Delta \chi^2$)	-		.53		.36	

Note. Regression computed with imputed data. Unstandardized betas reported. [#] $p < .10$. * $p < .05$.

** $p < .01$. *** $p < .001$. Study year (0 = 2017; 1 = 2019). Parent gender (0 = female; 1 = male).

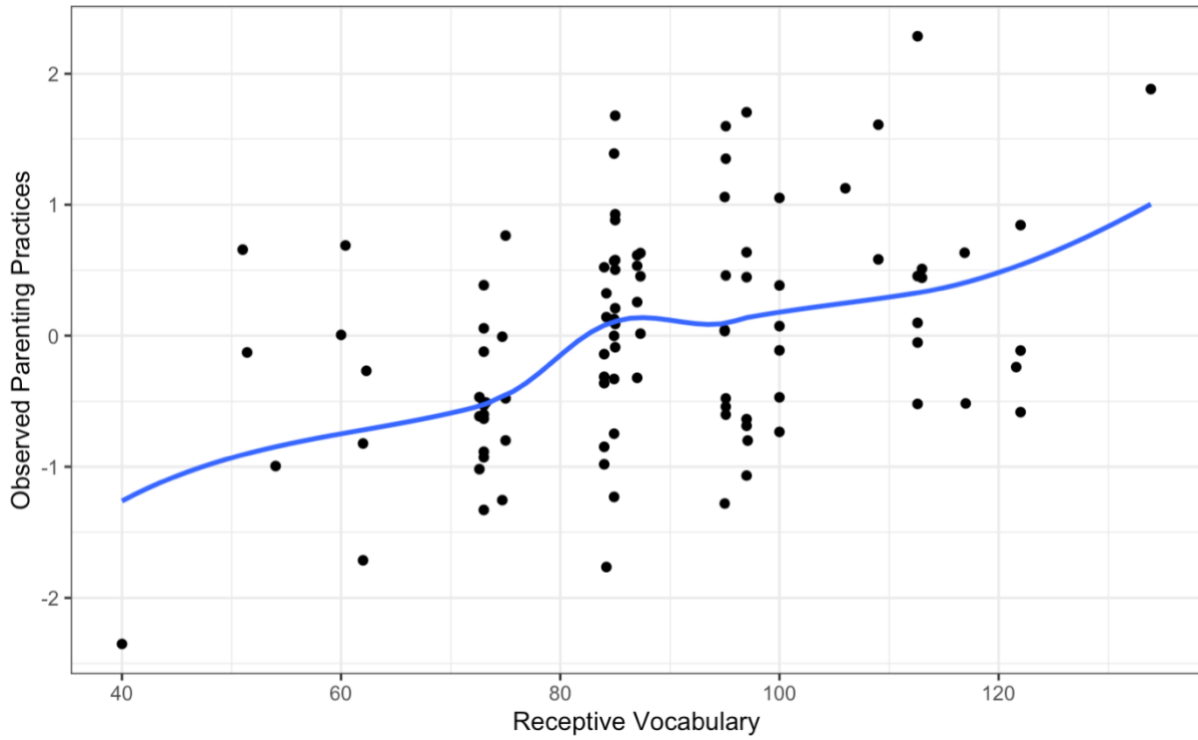
PVT = receptive vocabulary. BCEs Adol = BCEs endorsed in adolescence and included ages 13

– 18. LTE = negative childhood lifetime events.

Figures

Figure 1

Scatterplot of Observed Parenting Practices and Caregiver Receptive Vocabulary



Supplemental Tables

Supplemental Table 1

Correlations of Key Study Variables Using Listwise Deletion

Variable	1	2	3	4	5	6	7	8
1. Study year	-							
2. Age	-.02							
3. Gender	.01	.47***						
4. Distress	.12	-.25*	-.21*					
5. PVT	-.11	.11	.10	.18 [#]				
6. BCEs	.11	.30**	.08	-.05	-.03			
7. LTE	-.04	-.09	.04	-.03	.10	-.24*		
8. Perceived Parenting Effectiveness ^a	.14	.02	.02	-.13	.06	.31**	.09	
9. Observed Effective Parenting	-.09	.03	.08	.12	.42***	-.08	.15	-.03

Note. n = 96 had complete data. [#]*p* < .10. **p* < .05. ***p* < .01. ****p* < .001. ^aSpearman's rho presented to account for the ordinal nature of the data; all other correlations were Pearson's *r*. Study year (0 = 2017; 1 = 2019). Parent gender (0 = female; 1 = male). PVT = receptive vocabulary. BCEs = benevolent childhood experiences. LTE = negative childhood lifetime events.

Supplemental Table 2

Hierarchical Linear Regression for Benevolent Childhood Experiences and Perceived Parenting

Effectiveness Using Listwise Deletion

Variable	Perceived Parenting Effectiveness								
	Step 1			Step 2			Step 3		
	<i>B</i>	SE	β	<i>B</i>	SE	β	<i>B</i>	SE	β
Step 1									
Study Year	.36	.21	.18 [#]	.28	.19	.14	.28	.20	.14
Age	-.01	.01	-.01	-.01	.01	-.12	-.01	.01	-.12
Gender	-.02	.31	-.01	.04	.30	.01	.03	.30	.01
Distress	-.03	.02	-.18	-.03	.02	-.18	-.03	.02	-.17
PVT	.01	.01	.05	.01	.01	.05	.01	.01	.05
Step 2									
LTE	-	-	-	.05	.04	.13	.05	.04	.13
BCEs	-	-	-	.19	.05	.39 ^{***}	.19	.05	.40 ^{***}
Step 3									
BCEs X LTE	-	-	-	-	-	-	-.01	.01	-.01
ΔR^2	5.4%			13.5%**			0%		
Total R^2	5.4%			18.9%**			18.9%*		
F	1.03			2.94			2.54		

Note. n = 96 had complete data. [#]*p* < .10. **p* < .05. ***p* < .01. ****p* < .001. Protocol year (0 = 2017; 1 = 2019). Parent gender (0 = female; 1 = male). PVT = receptive vocabulary. BCEs = benevolent childhood experiences. LTE = negative childhood lifetime events.

Supplemental Table 3

Hierarchical Linear Regression for Benevolent Childhood Experiences and Observed Effective

Parenting Using Listwise Deletion

Variable	Observed Parenting Practices								
	Step 1			Step 2			Step 3		
	<i>B</i>	SE	β	<i>B</i>	SE	β	<i>B</i>	SE	β
Step 1									
Study Year	-.10	.17	-.06	-.09	.17	-.05	-.06	.17	-.04
Age	-.01	.01	-.03	.01	.01	.01	.01	.01	.01
Gender	.15	.25	.06	.12	.48	.05	.04	.26	.02
Distress	.01	.01	.06	.01	.02	.07	.01	.02	.08
PVT	.04	.01	.40***	.04	.01	.38***	.04	.01	.38***
Step 2									
LTE	-	-	-	.03	.04	.10	-.01	.04	.09
BCEs	-	-	-	-.02	.04	-.04	-.01	.04	-.01
Step 3									
BCEs X LTE	-	-	-	-	-	-	-.02	.01	-.14
ΔR^2	18.2%			1.2%			1.6%		
Total R^2	18.2%**			19.4%**			21.0%**		
F	4.01			3.01			2.90		

Note. $n = 96$ had complete data. # $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$. Protocol year (0 = 2017; 1 = 2019). Parent gender (0 = female; 1 = male). PVT = receptive vocabulary. BCEs = benevolent childhood experiences. LTE = negative childhood lifetime events.

Supplemental Table 4

Correlations of Benevolent Childhood Experiences by Developmental Period Using Listwise Deletion

Variable	1	2	3	4	5	6	7	8	9
1. Study Year	-								
2. Age	-.02								
3. Gender	.01	.47***							
4. Kessler	.12	-.25*	-.21*						
5. PVT	-.11	.11	.10	.18 [#]					
6. LTE	-.04	-.09	.04	-.03	.10				
7. BCEs EC – MC	.01	.25*	.03	-.09	.02	-.12			
8. BCEs Adol	.21*	.21*	.12	-.20 [#]	.06	-.18 [#]	.32***		
9. Perceived Parenting Effectiveness ^a	.14	.02	.02	-.13	.06	.09	.15	.30**	
10. Observed Effective Parenting	-.09	.03	.08	.12	.42***	.15	-.05	-.01	-.03

Note. n = 96 had complete data. [#]*p* < .10. **p* < .05. ***p* < .01. ****p* < .001. ^aSpearman’s rho presented to account for the ordinal nature of the data; all other correlations were Pearson’s *r*. Study year (0 = 2017; 1 = 2019). Parent gender (0 = female; 1 = male). PVT =

receptive vocabulary. BCEs EC – MC = BCEs endorsed in early childhood to middle childhood and included ages 0 – 12. BCEs Adol = BCEs endorsed in adolescence and included ages 13 – 18. LTE = negative childhood lifetime events.

Supplemental Table 5

Hierarchical Linear Regression for Early to Middle Childhood Benevolent Childhood

Experiences and Perceived Parenting Effectiveness Using Listwise Deletion

Variable	Perceived Parenting Effectiveness								
	Step 1			Step 2			Step 3		
	<i>B</i>	SE	β	<i>B</i>	SE	β	<i>B</i>	SE	β
Step 1									
Study Year	.36	.21	.18 [#]	.36	.21	.18 [#]	.33	.21	.17
Age	-.01	.01	-.01	-.01	.01	-.02	-.01	.02	-.03
Gender	-.02	.31	-.01	-.01	.32	-.01	.03	.32	.01
Distress	-.03	.02	-.18	-.03	.02	-.17	-.03	.02	-.19 [#]
PVT	.01	.01	.05	.01	.01	.04	.01	.01	.03
Step 2									
LTE	-	-	-	.03	.04	.07	.04	.05	.09
BCEs EC -	-	-	-	.04	.04	.12	.04	.04	.12
MC									
Step 3									
BCEs EC -	-	-	-	-	-	-	.02	.01	.12
MC									
X LTE									
ΔR^2	5.4%			1.6%			1.2%		
Total R^2	5.4%			7.0%			8.2%		
F	1.03			.95			.98		

Note. n = 96 had complete data. [#]*p* < .10. **p* < .05. ***p* < .01. ****p* < .001. Protocol year (0 =

2017; 1 = 2019). Parent gender (0 = female; 1 = male). PVT = receptive vocabulary. BCEs EC -

MC = BCEs endorsed in early to middle childhood and included ages 0 – 12. LTE = negative

childhood lifetime events.

Supplemental Table 6

Hierarchical Linear Regression for Early to Middle Childhood Benevolent Childhood

Experiences and Observed Effective Parenting Using Listwise Deletion

Variable	Observed Effective Parenting								
	Step 1			Step 2			Step 3		
	<i>B</i>	SE	β	<i>B</i>	SE	β	<i>B</i>	SE	β
Step 1									
Study Year	-.10	.17	-.06	-.10	.17	-.06	-.07	.17	-.04
Age	-.01	.01	-.03	-.01	.01	.01	.01	.01	.01
Gender	.15	.25	.06	.12	.26	.05	.08	.26	.03
Distress	.01	.01	.06	.01	.01	.07	.01	.02	.09
PVT	.04	.01	.40***	.04	.01	.39***	.04	.01	.40***
Step 2									
LTE	-	-	-	.04	.04	.10	.02	.04	.05
BCEs EC - MC	-	-	-	-.01	.03	-.04	-.01	.03	-.04
Step 3									
BCEs EC - MC X LTE	-	-	-	-	-	-	-.02	.01	-.19 [#]
ΔR^2	18.2%			1.2%			2.0% [#]		
Total R^2	18.2%**			19.4%**			21.4%**		
F	4.01			3.02			3.12		

Note. n = 96 had complete data. [#]*p* < .10. **p* < .05. ***p* < .01. ****p* < .001. Protocol year (0 =

2017; 1 = 2019). Parent gender (0 = female; 1 = male). PVT = receptive vocabulary. BCEs EC -

MC = BCEs endorsed in early to middle childhood and included ages 0 – 12. LTE = negative

childhood lifetime events.

Supplemental Table 7

Hierarchical Linear Regression for Adolescent Benevolent Childhood Experiences and

Perceived Parenting Effectiveness Using Listwise Deletion

Variable	Perceived Parenting Effectiveness								
	Step 1			Step 2			Step 3		
	<i>B</i>	SE	β	<i>B</i>	SE	β	<i>B</i>	SE	β
Step 1									
Study Year	.36	.21	.18 [#]	.22	.21	.11	.22	.20	.11
Age	-.01	.01	-.01	-.01	.01	-.03	-.01	.01	-.02
Gender	-.02	.31	-.01	-.03	.31	-.01	-.09	.31	-.03
Distress	-.03	.02	-.18	-.02	.02	-.12	-.02	.02	-.11
PVT	.01	.01	.05	.01	.01	.01	-.01	.01	-.01
Step 2									
LTE	-	-	-	.04	.04	.11	.04	.04	.11
BCEs Adol	-	-	-	.11	.04	.29**	.11	.04	.31**
Step 3									
BCEs Adol X LTE	-	-	-	-	-	-	-.01	.01	-.10
ΔR^2	5.4%			7.6%*			.8%		
Total R^2	5.4%			13.0% [#]			13.8% [#]		
F	1.03			1.87			1.75		

Note. n = 96 had complete data. [#]*p* < .10. **p* < .05. ***p* < .01. ****p* < .001. Protocol year (0 = 2017; 1 = 2019). Parent gender (0 = female; 1 = male). PVT = receptive vocabulary. BCEs Adol = BCEs endorsed in adolescence and included ages 13 – 18. LTE = negative childhood lifetime events.

Supplemental Table 8

Hierarchical Linear Regression for Adolescent Benevolent Childhood Experiences and Observed

Effective Parenting Using Listwise Deletion

Variable	Observed Effective Parenting								
	Step 1			Step 2			Step 3		
	<i>B</i>	SE	β	<i>B</i>	SE	β	<i>B</i>	SE	β
Step 1									
Study Year	-.10	.17	-.06	-.11	.17	-.06	-.11	.17	-.06
Age	-.01	.01	-.03	-.01	.01	-.01	-.01	.01	-.01
Gender	.15	.25	.06	.13	.26	.06	.10	.26	.04
Distress	.01	.01	.06	.01	.02	.07	.01	.02	.07
PVT	.04	.01	.40***	.04	.01	.38***	.03	.01	.38***
Step 2									
LTE	-	-	-	.04	.04	.11	.04	.04	.11
BCEs Adol	-	-	-	.01	.03	.02	.01	.03	.03
Step 3									
BCEs Adol X LTE	-	-	-	-	-	-	-.01	.01	-.06
ΔR^2	18.2%			1.1%			.03%		
Total R^2	18.2%**			19.3%**			19.6%*		
F	4.01			3.0			2.65		

Note. n = 96 had complete data. # $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$. Protocol year (0 =

2017; 1 = 2019). Parent gender (0 = female; 1 = male). PVT = receptive vocabulary. BCEs Adol

= BCEs endorsed in adolescence and included ages 13 – 18. LTE = negative childhood lifetime

events.

Appendix A

Concordance Between the Lifetime Events Questionnaire and Adverse Childhood Experiences Questionnaire

To provide validity for the Lifetime Events (LTE) questionnaire as a retrospective measure of cumulative adversity in childhood in the present study, a comparison between the Adverse Childhood Experiences (ACEs) scale and LTE was conducted in an independent dataset focused on caregivers experiencing homelessness (Monn et al., 2017; Narayan et al., 2017).

Participants

Participants included 107 caregivers recruited during the summer and fall of 2012 from two homeless shelters in a Midwest metropolitan area. Similar to the current study, families were considered eligible to participate in the study if they lived in shelter for at least three consecutive days to allow for acclimation. Exclusion criteria were insufficient English to complete tasks or developmental delay identified by the parent that interfered with the child's ability to participate in study procedures. Descriptive data indicated that this sample of caregivers was similar to those in the present study ($M = 30.7$ years, $SD = 6.4$, range = 19 – 49; 93.5% female; 63.6% African American; 12.1% white; 8.4% multiracial; 4.7% American Indian or Alaska Native; 3.7% Asian or Pacific Islander; 2.8% African Native; 4.7% selected other race).

Measures

Lifetime Events Questionnaire (LTE)

The LTE questionnaire used in the 2012 study included a 24-item checklist of life experiences (Masten et al., 1993). The majority of items pertained to negative life events (e.g., death of family members, hospitalizations, incarceration, exposure to violence). If participants positively endorsed an item, they were then asked if this experience occurred in childhood (ages

0 - 18), adulthood, and/or the past year. This version of the LTE used in the 2012 study had two additional questions that were not included on the LTE in the present study. Therefore, these items were not included in the total score of negative childhood LTE. Additionally, the item “you were married” did not clearly reflect a negative life event in childhood and was not included in the total score. Positively endorsed items of the negative life events (21 items) in childhood were summed for a total negative childhood LTE score.

Adverse Childhood Experiences Scale (ACEs)

The ACEs scale is a widely used 10-item list of negative events that an adult may have experienced in childhood, such as parental divorce, unmet resources, exposure to verbal or physical aggression between parents, family members’ substance use or incarceration, or physical abuse (Felitti et al., 1998). Caregivers were asked to indicate whether any of these events occurred during childhood, and positively endorsed items were summed for a total ACEs score.

Family Information Questionnaire

Caregivers completed a brief semi-structured interview of family history and demographic information. This included several sociodemographic risk factors that pertained to their history of homelessness in childhood, level of education, and age when they had their first child. Three categorical variables were computed based on whether caregivers experienced homelessness in childhood, earned less than a high school diploma, or had their first child when they were younger than age 18 (0 = no; 1 = yes).

Planned Analyses & Hypotheses

A correlation was conducted to examine the strength of the association between negative childhood LTE and ACEs. Because the LTE had one identical item to the ACEs questionnaire

(parent divorce or separation), a second correlation was conducted without this item on the LTE questionnaire. It was expected that ACEs and negative childhood LTE would have a moderate to strong positive correlation (Pearson's $r = .30 - .60$) (Cohen, 1988). To examine whether ACEs and negative childhood LTE had similar concordance with other indicators of sociodemographic risk in childhood, a one-way ANOVA was conducted to assess whether total ACEs and negative childhood LTE differed between those who experienced homelessness in childhood, earned less than a high school diploma, or had their first child when they were younger than age 18. When examining total negative childhood LTE between those with and without a history of homelessness in childhood, one item was removed from the LTE that assessed for homelessness in childhood. It was hypothesized that caregivers who experienced homelessness in childhood, did not achieve a high school diploma, or had their first child younger than age 18 would have significantly higher negative childhood LTE and ACE scores than caregivers who did not endorse these indicators of sociodemographic risk in childhood.

Results

Among these caregivers, 47 (43.9%) achieved less than a high school diploma, 44 (41.1%) had their first child before age 18, and 23 (21.5%) experienced homelessness in childhood. They endorsed an average of 3.3 ACEs ($SD = 2.6$, range = 0 – 9) and 2.3 negative childhood LTE ($SD = 2.0$, range = 0 – 8). As hypothesized, ACEs and negative childhood LTE had a moderate positive association (Pearson's $r = .53$, $p < .001$) and the association maintained its significance when the one identical item was removed from the LTE questionnaire (Pearson's $r = .49$, $p < .001$). For caregivers who experienced homelessness in childhood, they reported significantly more ACEs ($M = 4.83$, $SD = 2.45$; $F = 10.89$, $p < .001$) and negative childhood LTE ($M = 2.74$, $SD = 1.89$; $F = 11.02$, $p < .01$) compared to individuals who did not experience

homelessness in childhood (ACEs: $M = 2.90$, $SD = 2.47$; LTE: $M = 1.54$, $SD = 1.42$). There were no significant differences in ACEs or negative childhood LTE among those who earned less than a high school diploma or had their first child younger than age 18 (see Tables A1 & A2).

Together, the results provide evidence that the LTE is similar to the ACEs questionnaire and is an adequate measure of cumulative childhood adversity for the present study.

Table A1*Adverse Childhood Experiences by Sociodemographic Risk Indicators in Childhood*

	ACEs		One-way ANOVA
	Yes <i>M (SD)</i>	No <i>M (SD)</i>	
Homelessness in childhood	4.83 (2.45)	2.90 (2.47)	$F = 10.89, p < .001$
Earned less than a HS diploma	3.22 (2.53)	3.41 (2.62)	$F = .16, p = .70$
Had first child before age 18	2.95 (2.75)	3.60 (2.42)	$F = .16, p = .21$

Note. ACEs = adverse childhood experiences. HS = high school. There was one individual who had missing data for ACEs. The sample for the one-way ANOVA was $n = 106$.

Table A2*Negative Childhood Lifetime Events by Sociodemographic Risk Indicators in Childhood*

	Negative Childhood Lifetime Events		One-way ANOVA
	Yes <i>M (SD)</i>	No <i>M (SD)</i>	
Homelessness in childhood	2.74 (1.89)	1.54 (1.42)	$F = 11.02, p < .01$
Earned less than a HS diploma	1.96 (1.67)	2.05 (1.87)	$F = .04, p = .84$
Had first child before age 18	2.31 (2.04)	1.80 (1.55)	$F = 2.16, p = .15$

Note. HS = high school. There were two individuals who had missing data for the Lifetime Events questionnaire. The sample for the one-way ANOVA was $n = 105$.

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