

Parental History of Trauma and Resilience during COVID-19

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Research Article

Keywords: Resilience, protective factors, parenting, COVID-19

DOI: <https://doi.org/10.21203/rs.3.rs-59182/v1>

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Abstract

Since March 2020, families across the U.S. have faced challenges due to the novel Coronavirus (COVID-19) and its subsequent restrictions. Prior literature has linked family stress to negative outcomes, such as parent and child mental health, increased risk of child maltreatment, and overall well-being, as well as protective factors that may help families navigate and respond to stressors. Furthermore, parental history of trauma, such as exposure to adversity in one's own childhood, has been linked to stress and resilience. Although some experts have voiced concern over the impact of COVID-19 on family well-being, few studies have been conducted thus far. This study utilized N = 523 responses from an online survey that was administered between May and June 2020 to gauge family stress and resilience among parents of children ages zero-to-five during the pandemic. There was a negative relationship between ACE score and parental resilience among this sample. Furthermore, frequency of childcare was positively linked to protective factors and resilience, while childcare barriers were negatively linked to resilience. Implications for practice, policy, and research are discussed, with a particular focus on the role of childcare and school openings during the pandemic.

Background

Parental History of Trauma and Resilience during COVID-19

Since the first cases of community spread of the novel Coronavirus (COVID-19) in the U.S., various restrictions such as shelter-in-place, closure of public schools, and closure of businesses have impacted millions of Americans (Centers for Disease Control and Prevention, 2019; UNESCO, 2020). As the new academic year approaches, states, counties, and cities must weigh the risks of re-opening schools with the potential risks of keeping children and families isolated. Although few rigorous studies have been done, some preliminary data suggests that reports and referrals to child protective services may have decreased (Mathematica, 2020), but experts fear that the drop may be in part due to reduced contact with professionals such as teachers who are trained to identify signs of maltreatment (Piquero et al., 2020; Rosenthal & Thompson, 2020; Teo & Griffiths, 2020). Yet, it is unclear how families are faring, or what is contributing to family resilience during these turbulent times. This study examined family stress and resilience among families with children ages zero-to-five during the COVID-19 pandemic in the U.S.

Theoretical Framework: The ABCX Model among Families in Crisis

During times of crisis, multiple family factors and dimensions can impact how the family makes sense of, addresses, and adapts to stressors (McCubbin & Patterson, 1983). The ABC family crisis model posits that family stressors, such as significant life events may impact overall family functioning (Hill, 1958). In addition to stressors, such as financial hardship or loss of a loved one, family resources to cope with stress and the family perception and significance of stressor intersect to influence a family's ability to avoid the stressor becoming a crisis (McCubbin & Patterson, 1983). Furthermore, over time, stressors may pile up, leading to crises and a need to cope, seek out new resources, and adapt. Prior research has

examined family adaptation after family crises such as health issues (Clark, 1999; Hesamzadeh et al., 2015), neurodivergent diagnoses (Manning et al., 2011; Pakenham et al., 2005), and during refugee resettlement (Dalgaard, 2017) through the ABCX model. Given the added economic stressors (Mann et al., 2020), such as employment instability, childcare, housing instability, food instability, and additional family stress from restrictions on everyday life and routines, the current study examines diverse stressors as well as resilience and protective factors to capture the family's ability to respond to added stress from COVID-19.

Literature Review

During times of crisis, children often observe their parents' reactions to stress and interpret the traumatic event based on parental emotional responses (Brom et al., 2009; Cummings, 2018). Indeed, parental coping (Weems et al., 2012) and parental mental health (Endo et al., 2007) have been found to impact child well-being after disasters or other crises. In parallel, parenting stress has been found to fully mediate the relationship between external stressors, such as financial crisis, and child outcomes such as child behavior problems (Puff & Renk, 2014). In addition to parental reactions to stress, other factors, such as child special needs or prior diagnoses such as Post Traumatic Stress Disorder (PTSD) have been linked to more sensitivity to the impact of crises, such as Hurricane Katrina (Weems et al., 2012). Parent's sensitivity to child stress has also been linked to better outcomes among children exposed to extreme stress, such as survivors of Hurricane Katrina (Lai et al., 2015). Other factors that are linked to vulnerability after crises include younger child age (Cohen et al., 2009), larger family support systems (De Prewitt & Richards, 2019), and social factors such as participation in informal social networks, and economic, political, and social structures that can impact resources and ability to adapt to stressors (Noffsinger et al., 2012).

Parenting and Intergenerational Transmission of Parenting Patterns

In addition to the role of parental reactions and well-being in shaping their children's response and resilience in the face of disasters or crises, prior literature has found a parent's own experiences with adversity and trauma to influence their parenting skills and resilience. For example, prior research has found a link between an individual's exposure to adverse childhood experiences (ACEs) and their own parenting stress (Steele et al., 2016), skills and resilience (Panisch et al., 2020). ACEs can include adversity within the family context, such as exposure to child maltreatment or living with a caregiver who has substance use issues (Anda et al., 1999; Felitti et al., 1998), or community-level ACEs such as neighborhood violence (Cronholm et al., 2015; Wade et al., 2016). Both family- and community- ACEs have been found to be negatively correlated with parenting skills and resilience (LaBrenz et al., 2020). Other scholars have also found that exposure to community-ACEs has a potential to negatively impact parents' psychological functioning and children's social emotional competence (Al'Uqdah et al., 2015).

Nonetheless, while several studies have linked ACEs to outcomes that may impact parenting, such as adult mental health (Jones et al., 2018; Merrick et al., 2017; Mersky et al., 2018) and resilience (Liu et al., 2020; Logan-Greene et al., 2014), recent literature has called for more in-depth empirical studies of which

items should be included in ACE screenings or questionnaires (Finkelhor, 2018). For example, the original ACE study conducted in California did not include neighborhood violence, bullying, or experiencing racial and ethnic discrimination, but more recent versions have included items to capture those constructs (Cronholm et al., 2015; Finkelhor et al., 2013). Although the inclusion of expanded ACE items has primarily occurred within the last decade, researchers have found that it may better capture the range of adversities that some demographic groups may experience more often, such as racial or ethnic discrimination among people of color (Cronholm et al., 2015), or bullying among LGBTQ individuals (Earnshaw et al., 2017). Indeed, the traditional ACE items were developed and piloted on a largely White, middle class population. Therefore, including expanded ACE items in studies may help capture different dimensions of adversity. During COVID-19, this could be particularly useful as some of the expanded ACE items include housing insecurity, food insecurity, and job insecurity, all of which may be rising issues in families impacted by the pandemic and the subsequent restrictions.

Parental Resilience and Protective Factors

Although a robust body of literature has established a link between ACEs and long-term negative outcomes, there has been less focus on strengths or protective factors that may mitigate the impact of early childhood exposure to adversity. An individual's positive adaptation when faced with risk, stress, or adversity, is referred to as resilience (Greene, 2013). Within the family system, parental resilience refers to the "capacity of parents to deliver a competent and quality level of parenting to children despite the presence of risk factors" (Gavidia-Payne et al., 2015, p. 111). In parallel, protective factors are characteristics that can be modified to boost a person's response to stress (Meng et al., 2018; Rutter, 1985). Indeed, protective factors have been linked to lower levels of juvenile delinquency (Jeon & Chun, 2017; Summersett et al., 2019), less aggressive behavior (Meng et al., 2018), and lower rates of maltreatment (Schelbe & Geiger, 2016). Some prior research has linked resilience to lower levels of anxiety during crises such as war or attacks (Braun-Lewensohn & Sagy, 2014; Zeidner, 2005), and that resilience may buffer the relationship between stressful life events and psychiatric symptoms (Hjemdal et al., 2006). Other studies have also found that through resilience, individuals with a history of ACEs are able to achieve higher levels of psychological functioning (Cicchetti & Rogosch, 2007; Cicchetti, 2010; Maples, Park, Nolen, & Rosén, 2014). Systematic reviews have also found that resilience improves the health and mental health outcomes for individuals with a history of ACEs (Afifi & MacMillan, 2011; Waechter & Wekerle, 2015). Thus, resilience and other protective factors may be particularly beneficial for families now as they navigate added stress due to COVID-19 and try to re-adapt and transition to new routines.

One consistent protective factor that has been linked to positive parenting practices and parental resilience is social (Armstrong et al., 2005; Wilson et al., 2014) and emotional support networks (Flessner et al., 2017). Social and emotional support may help foster resilience in times of adversities and lead to positive parenting practices, less parent-child conflict, and less use of harsh physical disciplining measures (Liu et al., 2020). For example, in the aftermath of wildfires, one study found that among youth with high levels of stress associated with the natural disaster, emotional support mediated the

relationship between stress and resilience (Sprague et al., 2015). During the current COVID-19 pandemic, regular social support systems may be impacted given directives to avoid contact with people outside of one's household.

Child Development and the Critical Years of Infancy and Toddlerhood

The first five years of childhood represents a critical period of human development and strongly influences a child's development later in life (Insana et al., 2016). Scholars have found that by age three, a child's brain is 90% of its size as an adult, thereby highlighting the rapid development which occurs during the first three years of life (White & Webster-Stratton, 2014). Exposing children to high levels of stress can lead to the over development of stress response and higher levels of cortisol, which are toxic for brain development (White & Webster-Stratton, 2014). Indeed, developmental psychologists and neurobiologists have recognized that exposure to ACEs and chronic stress during the first years of life has the potential to significantly disrupt normal brain development including reduced thickness in some brain areas (Johnson et al., 2016; Tottenham & Sheridan, 2009). One of the most consistent findings is an association between ACEs and hippocampal and amygdala connectivity (Barch et al., 2016; Hanson et al., 2015; Luby et al., 2013). In particular, changes in the hippocampal and amygdala connectivity have been found to be pronounced among children exposed to ACEs in early life (Barch et al., 2016). As a result, scholars have made the case for the protection of children ages zero-to-five during disasters and crises (Ager et al., 2010; Barrientos & Nino-Zararua, 2011). One article has already noted the impact of accumulation of adverse childhood experiences on children already at risk for abuse and neglect during the COVID-19 pandemic (Bryce, 2020).

The global COVID-19 pandemic poses significant risks to children's well-being as not only do children face increased vulnerability to abuse and neglect as a result of shelter-in-place and lockdown measures, but social and academic development are compromised due to the closure of schools and daycares. Griffith (2020) warns about the likelihood of increased parental burnout during the pandemic and consequently, increased child maltreatment.

Another resource that has been linked to better child and parent outcomes, such as lower rates of maternal stress, improved parenting quality, and improved child behavior and language acquisition, is reliable and quality childcare (Yamaguchi et al., 2018). In parallel, parental fatigue has been linked to increasing parenting stress and higher irritability in parent-child interactions (Cooklin et al., 2012). Additionally, some experts have explored increased vulnerability for family and intimate partner violence during this time (Kaukinen, 2020; Piquero et al., 2020; Usher et al., 2020). These concerns, paired with challenges in child and adolescent mental health (Fegert et al., 2020), underscore the necessity of family resilience research specific to the present context.

Current Study

This study sought to answer the following research questions: 1) How have parents of children ages 0-5 experienced parental resilience and protective factors during the COVID-19 pandemic: 2) How does past

adversity during a parent's own childhood impact protective factors during the COVID-19 pandemic?; and 3) How do additional stressors during COVID-19, such as adherence to social distancing and reduction in child care, impact parental resilience and protective factors?

Method

Data were utilized from an online survey that was developed and administered by the authors of this study to examine parental stress and resilience among parents of children ages zero-to-five during the COVID-19 pandemic. The survey consisted of a mix of previously validated measures, such as the Parenting Assessment of Protective Factors (PAPF; Kiplinger & Browne, 2014), and ACE survey (Felitti et al., 1998), as well as questions the authors developed related to adherence to social distancing, challenges since COVID began, and service utilization. Three of the authors took an active role in developing the survey and consulted with experts in topics related to ACEs and parental resilience. Participants were recruited via social media outreach and via childcare centers to target parents with children under six years of age. The study was approved by the Institutional Review Board at the first author's institution.

Sample

A total $N = 523$ respondents completed the online survey between May and June 2020 using Qualtrics. The majority of these (97.1%) were female, and the remaining 2.9% were male. The sample was mostly White (67.9%), followed by Hispanic (10.2%), Asian (3.6%), Black (2.4%), and other race (15.9%). The sample was also highly educated; 0.2% had less than a high school education, 3.0% had graduated high school, 21.2% had some college or an associates degree, 34.5% had a bachelors degree, 28.8% had a graduate or professional degree, and the remaining 12.3% had a doctorate. The highest proportion of respondents had an annual household income of \$80,000 or higher (64.1%), followed by \$60,000-\$79,999 (13.9%), \$40,000-\$59,999 (10.4%), \$20,000-\$39,999 (8.4%), and under \$20,000 (3.2%).

Measures

Parenting Resilience

The main dependent variable for the multivariate analysis was parenting resilience. This was measured by the Parenting Assessment of Protective Factors (PAPF) scale (Kiplinger & Browne, 2014). The PAPF consists of four subscales that each capture a unique domain of protective factors; these include parental resilience, social connections, concrete support in times of need, and social-emotional competence of parents. Each subscale is measured by nine items that ask respondents to use a 5-point Likert scale to describe how much various statements are like them. Items from the *parental resilience* subscale include statements such as "I take good care of my child even when I am sad," "I am confident I can achieve my goals," and "I have the strength within myself to solve problems that happen in my life". Items from the *social connections* subscale include statements such as "I have someone who can help me calm down if I get frustrated with my child," "I have someone who helps me feel good about myself,"

and “I am willing to ask for help from my family”. The *concrete support* subscale included items such as “I make an effort to learn about the resources in my community that might be helpful for me,” “I know where to get help if I have trouble taking care of emergencies,” and “I am willing to ask for help from community programs or agencies”. The final subscale, *social and emotional competence* included items such as “I play with my child when we are together,” “I help my child calm down when he or she is upset,” and “I stay patient when my child cries”. For a full list of items, see Kiplinger and Browne (2014).

Scores are averaged for all nine items within each subscale, and then for the entire PAPP measure. Scores were included and averaged for each subscale if there were valid responses to at least 8 of the 9 items. Specific items are coded so that higher scores reflect more parenting protective factors. The PAPP has been found to have strong psychometric properties (Panisch et al., 2020). In the present study, Cronbach’s alpha was calculated for each subscale and the overall scale; this ranged from $\alpha = .86$ (parental resilience subscale), $\alpha = .92$ (social connections subscale), $\alpha = .86$ (concrete support subscale), $\alpha = .89$ (social and emotional competence subscale), and $\alpha = .93$ (overall PAPP measure).

ACE Score

Parental ACE score was used as an independent variable in this study. Both a *traditional* ACE score and *expanded* ACE score were calculated. The traditional ACE score consisted of the items from the original Kaiser Permanente ACE Study (Felitti et al., 1998) and the Philadelphia ACE study (Cronholm et al., 2015). These items focused on family-factors such as exposure to child maltreatment and living with a caregiver with substance use or mental health issues. In addition to these traditional ACE items, the research team also included items related to expanded ACEs, such as bullying, experience in foster care, or exposure to community violence. Consistent with prior literature (LaBrenz et al., 2019), separate models were run with the traditional and expanded ACE scores. Traditional scores included 11 items whereas the expanded scores included 19 items. Table 1 presents the specific items that were included in each operationalization.

All ACE items were coded as binary variables. Respondents were asked to self-report whether they had ever experienced specific adversities, such as “did you live with anyone who was a problem drinker,” “did you experience bullying,” and “were your parents separated or divorced?” Respondents were coded as “1” if they reported ever having experienced that adversity during their first 18 years of life, and “0” if they did not experience that adversity. A sum of the items was taken to calculate the total traditional and expanded ACE score. Scores were only included for respondents that had answered all ACE items. Consistent with prior literature, ACE score was operationalized as a categorical variable, and respondents received a total score of “0,” “1,” “2,” “3,” “4,” or “5- plus.” In all regression models, an ACE score of 0 was the reference group. Cronbach’s alpha for the expanded ACE items was $\alpha = .81$, and that of the traditional ACE items was $\alpha = .75$.

Childcare Issues during COVID-19

Given the particular disruptions families have faced in childcare during the COVID-19 pandemic, disruption in regular childcare was considered as a control variable. Respondents self-reported whether or not they had experienced any disruptions in their regular childcare arrangements as a result of the COVID-19 pandemic. This was a binary variable where those who reported any disruptions were coded as “1” and those who reported no disruptions were coded as “0.”

Frequency of Childcare during COVID-19

In addition to disruptions in childcare, the frequency with which respondents utilized any childcare during the COVID-19 pandemic was entered as a control variable. Responses ranged from never (“1”) to always (“5”). Frequency of childcare was operationalized as a continuous variable.

Adherence to Social Distancing

Adherence to social distancing was entered as a control variable based on the literature conceptualizing social support as a protective factor. Individuals were asked to respond to the question “on a scale of 1-5, with 1 being ‘not at all strict’ and 5 being ‘very strict’ please rate your level of adherence to social distancing measures during COVID-19.” Adherence to social distancing was operationalized as a continuous variable.

Demographic Controls

Parent race/ethnicity, gender, income, and level of education were entered as control variables. Race/ethnicity was self-reported by respondents and included non-Hispanic Black, Hispanic, Asian, and other race, with non-Hispanic White as the reference group. Gender was coded as female (“1”) with male as the reference group (“0”). Household income was grouped into five categories: less than \$20,000 per year; between \$20,000 and \$39,999; between \$40,000 and \$59,999; between \$60,000 and \$79,999; and \$80,000 or higher. Less than \$20,000 per year was the reference group for income. Level of education was grouped into those with less than a bachelor’s degree (reference category), those with a bachelor’s degree, and those with a graduate or other advanced degree.

Data Analysis

Descriptive statistics were first computed by calculating the mean and standard deviation of continuous variables and percentages of categorical variables. This was conducted to understand the general distribution of the variables of interest employed in the analysis. The main analysis involves the use of Ordinary Least Squares (OLS) multiple regression to understand the relationship between ACEs and parental resilience during the COVID-19 pandemic. We opted for OLS multiple regression given that the outcome variable (parental resilience) is measured as continuous variable and the explanatory and control variables were measured as continuous and categorical variables. The variables of race/ethnicity, level of education, and annual household income were dummy coded prior to inclusion in the regression model to meet the necessary condition of linearity required for OLS regression. A scatter plot revealed that the outcome variable and continuous variables were normally distributed, thus no transformations

were necessary. Diagnostic tests were performed to identify potential issues of multicollinearity among the sets of explanatory variables and we found no issues of multicollinearity that could pose a problem to our results. A series of five multivariate multiple regression models were conducted to examine the relationship between ACEs and parental resilience during the COVID-19 pandemic while controlling for the effects of demographics factors, COVID impact on childcare, frequency of child care, and adherence to social distancing. Two versions of each model were run; one with traditional and one with expanded ACE scores. We regressed ACEs on overall PAPP scores in Model 1, ACEs on parental resilience in Model 2, ACEs on social connections in Model 3, ACEs on concrete support in times of need in Model 4, and ACEs on social and emotional competence in Model 5. Race/ethnicity, education, childcare issues during COVID-19, adherence to social distancing, and frequency of childcare were included as control variables in all 5 models. Variables were considered significant if the p-value was less than .05. All analyses were conducted in SPSS version 25.

Results

As seen in Table 2, the overall PAPP average was 2.40 ($SD = 0.41$) among respondents. Subscale averages were similar for parental resilience ($M = 2.49$, $SD = 0.45$), social connections ($M = 2.38$, $SD = 0.62$), concrete support in times of need ($M = 2.26$, $SD = 0.57$), and social emotional competence ($M = 2.27$, $SD = 0.50$). The average traditional ACE score was 2.54 ($SD = 1.67$) and the average expanded ACE score was 3.25 ($SD = 1.70$). Figure 1 shows the distribution of ACE scores, comparing those with a traditional and expanded ACE score of 0, 1, 2, 3, 4, or 5+.

As seen in Figure 2, The most frequently reported ACE items included living with a parent or caregiver who had mental health problems (51.01%), having a parent swear at the individual or put them down as a child (41.16%), and parents who were separated or divorced (31.49%). Of the expanded ACE items, the most frequently reported exposure was having been spanked as a child (75.38%), having experienced bullying (52.76%), and living with a parent or caregiver who experienced job insecurity (33.17%).

Almost half the sample (46.1%) knew someone who had been diagnosed with COVID-19. Slightly over half the sample (54.48%) reported having at least one member of their household that was in a high-risk group for COVID-19. Most of the sample reported adhering to social distancing protocol very strictly (41.6%) or moderately strictly (40.3%), and the average level of social adherence was 4.1 on a five-point Likert scale. Just under one-third of respondents (29.1%) reported having problems with childcare during the COVID-19 pandemic.

Expanded Adverse Childhood Experiences and Parenting during COVID-19

Table 3 presents the results of the regressions with expanded ACEs. Having an expanded ACE score of 2 ($b = -0.30$, $p < .01$), 3 ($b = -0.30$, $p < .001$), 4 ($b = -0.34$, $p < .01$), or 5+ ($b = -0.38$, $p < .001$) was negatively associated with overall PAPP score, when compared to those with an ACE score of zero. Adherence to social distancing ($b = 0.09$, $p < .01$) and frequency of childcare ($b = 0.04$, $p = 0.03$) were positively associated with the overall PAPP score. Furthermore, individuals who reported having problems with child

care during COVID-19 had lower overall PAPF scores ($b = -0.15, p=.01$). Level of education, parent gender, income, and race/ethnicity were not significantly associated with overall PAPF score.

In the regression onto the subscale of parental resilience, parents with an expanded ACE score of 1 ($b = -0.25, p=.02$), 3 ($b = -0.30, p<.01$), 4 ($b=-0.32, p<.01$), or 5+ ($b=-0.36, p<.001$) had lower scores on parental resilience than parents with an expanded ACE score of 0. Individuals who earned \$60,000-\$79,999 or who earned \$80,000 or more per year had higher levels of parental resilience than those who earned less than \$20,000 per year. None of the other covariates were significantly associated with parental resilience.

In the regression onto the subscale of social connections, parents with an expanded ACE score of 3 ($b = -0.37, p = 0.01$), 4 ($b = -0.39, p=0.01$), or 5+ ($b = -0.40, p < .01$) had lower scores social connections than parents with an ACE score of 0. Parents that reported childcare issues during COVID-19 had an average social connection score that was 0.29 points lower than those who did not have childcare issues ($p <.001$). None of the other covariates were correlated with social connections.

In the fourth regression, those with an ACE score of 2 ($b = -0.28, p=.04$) or 5+ ($b = -0.31, p=.02$) had lower scores on the concrete support subscale than those with an ACE score of 0. In this regression, the only covariate associated with concrete support in times of need was frequency of childcare ($b = 0.05, p = 0.03$). Adherence to social distancing, race/ethnicity, childcare issues, parent gender, income, and educational level were not significantly associated with concrete support in times of need.

In the fifth regression, parents with an expanded ACE score of 1 ($b = -0.25, p=.04$), 2 ($b = -0.37, p < .01$), 3 ($b = -0.42, p <.01$), 4 ($b= -0.37, p<.01$), or 5+ ($b=-0.40, p<.001$) had lower average parenting competence scores than parents with an ACE score of 0. Adherence to social distancing was positively correlated with parenting competence ($b = 0.09, p<.01$), as was frequency of childcare ($b=0.05, p<.01$). Parents who reported childcare issues during COVID-19 had an average parenting competence score that was 0.16 points lower than parents without childcare issues. Asian parents had an average parenting competence score that was 0.26 points lower than their White counterparts ($p = 0.05$).

Traditional Adverse Childhood Experiences and Parenting during COVID-19

Table 4 presents the results of the regressions with traditional ACEs. A traditional ACE score of 1 ($b = -0.24, p<.01$), 2 ($b = -0.24, p<.01$), 3 ($b = -0.28, p<.01$), 4 ($b = -0.29, p<.01$), or 5+ ($b = -0.27, p<.01$) was associated with overall PAPF score, when compared to parents with an ACE score of zero. Adherence to social distancing ($b = 0.09, p=.001$) and frequency of childcare ($b = 0.04, p = 0.01$) were positively associated with the overall PAPF score. Level of education, parent gender, income, and race/ethnicity were not significantly associated with overall PAPF score. Parents who reported childcare issues during COVID-19 had an average PAPF score that was 0.14 lower than parents who did not report childcare issues ($p=.02$).

In the regression onto the subscale of parental resilience, parents with a traditional ACE score of 1 ($b = -0.22, p=.01$), 2 ($b = -0.28, p<.01$), 3 ($b = -0.29, p<.01$), 4 ($b=-0.27, p<.01$), or 5+ ($b=-0.26, p<.01$) had lower

scores on parental resilience than parents with a traditional ACE score of 0. Frequency of childcare was positively correlated with parental resilience ($b = 0.03, p = 0.04$), and those with a household income of \$60,000-\$79,999 had an average parental resilience score that was 0.37 higher than those that made under \$20,000 per year ($p=.02$).e of the other covariates were associated with parental resilience.

In the regression onto the subscale of social connections, parents with a traditional ACE score of 1 ($b = -0.23, p=.04$), 3 ($b=-0.29, p = 0.03$), 4 ($b = -0.40, p<0.01$), or 5+ ($b = -0.27, p = .03$) had lower averages than parents with an ACE score of 0. Parents that reported childcare issues during COVID-19 had an average social connection score that was 0.29 points lower than those who did not have childcare issues ($p <.001$). None of the other covariates were associated with social connections in this regression.

In the fourth regression, parents with a traditional ACE score of 3 ($b = -0.25, p=.04$), 4 ($b = -0.28, p = 0.02$) or 5+ ($b = -0.34, p < .01$) had lower scores on concrete support in times of need than parents with an ACE score of 0. In this regression, the only covariate associated with concrete support was frequency of childcare ($b = 0.05, p = 0.03$). Parental race/ethnicity, gender, and household income were not associated with concrete support in times of need.

In the fifth regression, parents with a traditional ACE score of 1 ($b = -0.28, p <.01$), 2 ($b = -0.31, p < .01$), 3 ($b = -0.38, p <.01$), 4 ($b=-0.29, p<.01$), or 5+ ($b=-0.33, p<.01$) had lower average parenting competence scores than those with an ACE score of 0. Adherence to social distancing was positively correlated with parenting competence ($b = 0.10, p<.001$), as was frequency of childcare ($b=0.05, p<.01$). Parents who reported childcare issues during COVID-19 had an average parenting competence score that was 0.14 points lower than parents without childcare issues. Asian parents had an average parenting competence score that was 0.30 points lower than their White counterparts ($p = 0.02$). None of the other covariates was significantly associated with parenting competence.

Discussion

This study examined how parents were experiencing parental resilience and protective factors during COVID-19, and the relationship between one's own childhood exposure to adversity and resilience. The average score on protective factors subscales ranged from 2.26 to 2.49 on a four-point Likert scale, consistent with a moderate-to-high range reported in prior literature (Panisch et al., 2020). Findings from this study suggest that a higher proportion of respondents had a traditional ACE score of 5+ (see Felitti et al., 1998) and an expanded ACE score of 5+ (Cronholm et al., 2015) than in prior studies. As noted in prior studies, this may be due to different items that were measured and how the ACE measure was operationalized in the current study (Anda et al., 2020).While both the traditional and expanded ACE score were correlated with parenting protective factors, the high proportion of respondents who experienced expanded ACEs may reflect the importance of screening adversities beyond the traditional 11 ACE items. Furthermore, the improvement in Cronbach's Alpha in the expanded ACE scale, compared to the traditional ACE scale, may also reflect the importance of including community-level items in ACE research.

Consistent with our main hypothesis, both traditional ACE score and expanded ACE score were associated with overall protective factors, parental resilience, social connections, and social and emotional competence of parents. In all of the regression models but one, both traditional ACE score and expanded ACE score were associated with dimensions of parenting protective factors for those who had a score of 4 or higher, evidencing a dose-response relationship between childhood adversity exposure and protective factors.

Specific to COVID-19, almost 80% of the sample reported adhering to social distancing “strictly” or “very strictly.” In turn, adherence to social distancing was positively associated with the overall PAPF measure and parenting competence subscale in both the traditional ACE and expanded ACE models. On the one hand, this might reflect more knowledge about child development among parents that are spending extended periods of time with their young children during the pandemic. On the other hand, the adherence to social distancing may also reflect more job stability among those who are able to work remotely or follow the recommended protocols such as shelter-in-place. It is also possible that those who report adhering to social distancing may do so, in part, because of higher levels of fear of COVID-19 (Harper et al., 2020) or anxiety (Lee, 2020). Thus, practitioners working with parents of infants and young children could assess family compliance with social distancing as well as possible other mental health needs during the COVID-19 pandemic.

One other factor that was correlated to several of the protective factor subscales was continued childcare and frequency of childcare. Those who reported childcare issues had lower average scores on parenting competence, social connections, and the overall PAPF measure. Furthermore, frequency of childcare access was positively associated with parenting competence, concrete support in times of need, resilience, and the overall PAPF measure. This finding suggests that parents that were able to continue with their pre-COVID childcare arrangements, and do so frequently, had enhanced parental protective factors. This highlights the importance of continued childcare and support as parents navigate remote work or other changes and disruptions to daily routines during COVID-19. Some reports have found that 336,000 child care workers lost their jobs between March and April 2020 (U.S. Bureau of Labor Statistics, 2020), and that 4,500,000 child care slots could be lost if COVID-19 restrictions continued (Jessen-Howard & Workman, 2020). Centers that have remained open many have decreased available spots or taken other precautions that may impact overall availability and access. Thus, impact of loss of child care may continue to impact families as the COVID-19 pandemic continues.

Limitations

This study is not without limitations. First, we used a convenience sample and most respondents were recruited via social media. As such, the sample is not necessarily representative of all parents or caregivers of children 0-5 in the U.S. Furthermore, the sample was fairly homogenous, with almost all respondents identifying as female and non-Hispanic White. Therefore, future research could expand the sample and target outreach to fathers and other racial or ethnic groups. Second, our selection of covariates was fairly limited. Thus, we were not able to control for other factors that may influence

parenting, such as parental mental health or current issues in the household such as interpersonal violence. Third, the data used for the current study are cross-sectional, limiting our ability to examine dynamic trends over time or changes over time. Nonetheless, given the global impact of COVID-19 and its subsequent restrictions, our findings can help professionals understand family strengths and resilience during the pandemic.

Conclusion And Implications

As the COVID-19 pandemic continues to evolve, it is important to understand families' experiences and resilience. Considering the link between parental exposure to adversity during their own childhood and protective factors in their current household, it could be important for organizations to adopt a trauma-informed framework when engaging, assessing, or providing services to families during times of crisis. This could include training professionals to recognize signs of trauma and responding with practices to avoid re-traumatization (Oral et al., 2016). Other elements that could be implemented in practice include culturally responsive strategies, peer support, and system-wide collaboration (Substance Abuse and Mental Health Services Administration, 2015).

Although very little research has examined child care during COVID-19, the findings from this study suggest that child care and parental resilience, as well as other parenting protective factors, are strongly linked. This builds upon one study of school-age children (ages 3-12) that found a potential loss of health care workers when schools closed (Bayham & Fenichel, 2020), and another study that linked school closures to increases in food insecurity (van Lancker & Parolin, 2020). Thus, as child licensing entities continue to monitor and adjust child care center policies during COVID-19, it is important to balance health concerns with other issues, such as parental mental health, child mental health, and job, housing, or food insecurity, which may be exacerbated if parents are unable to access regular childcare. Thus, policymakers and legislatures should continue to support childcare centers and provide continued access to childcare for parents who may not have other alternatives.

Finally, given the dynamic nature of parenting and resilience, it is important to continue to examine protective factors as COVID-19 evolves. The current study has two more waves planned to track participants over time and as the new school year approaches. Other research could examine family experiences over the course of the pandemic and as there are more transitions and changes to policies related to social distancing, school closures, work restrictions, and other local, state, or federal policies that may impact parenting resilience and social support. As we continue to grapple with COVID-19, it is important to continue to understand family experiences, stress, and resilience, and ways to better support families with infants and young children.

Declarations

Consent: Informed consent was acquired from all participants before beginning the study.

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Tables

Due to technical limitations, tables 1-4 are only available as downloads in the supplemental files section

Figures

Figure 1. Traditional and Expanded ACE Score

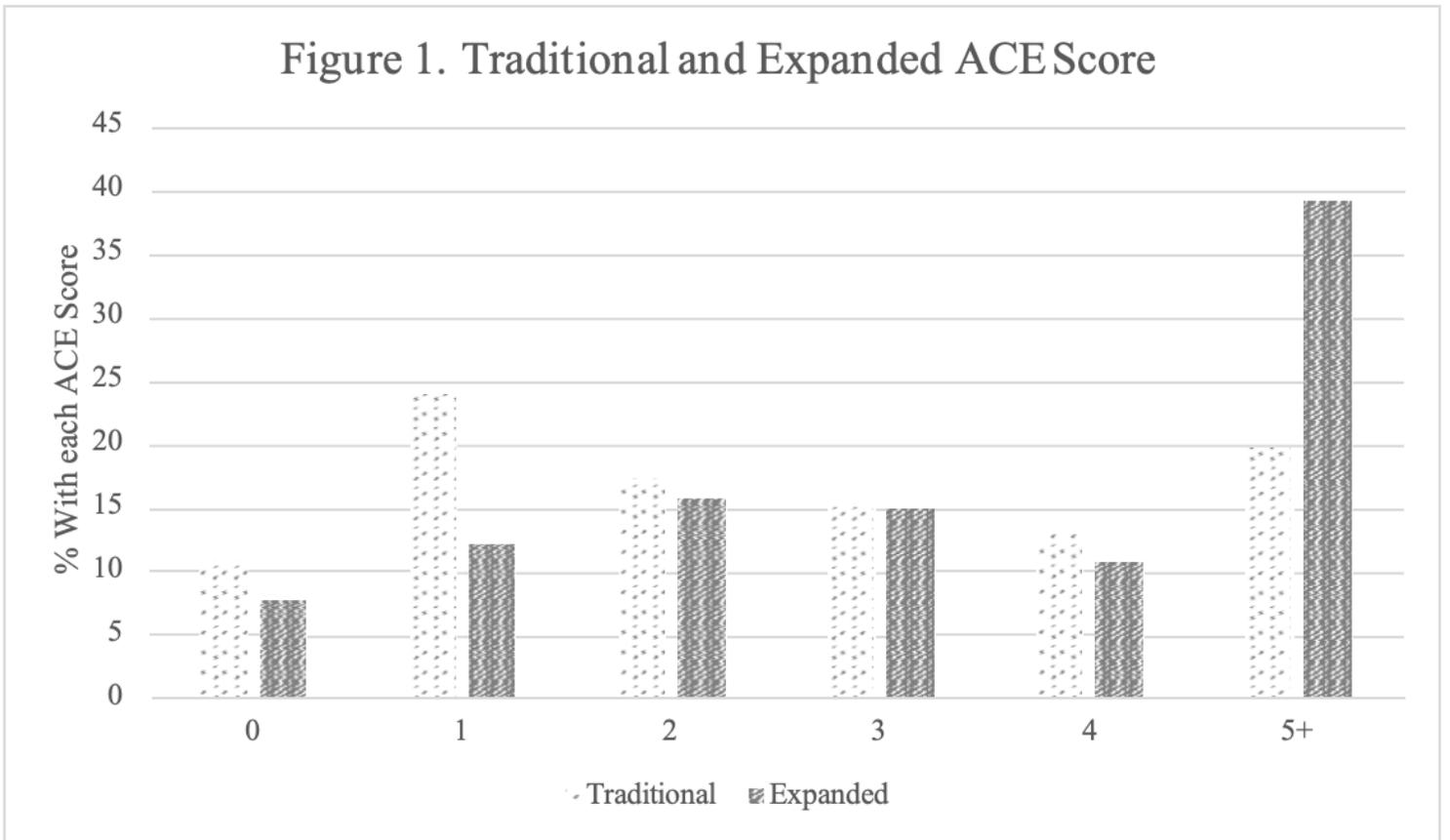


Figure 1

Traditional and Expanded ACE Score

Figure 2. Proportion of Respondents who Self-Reported each ACE Exposure

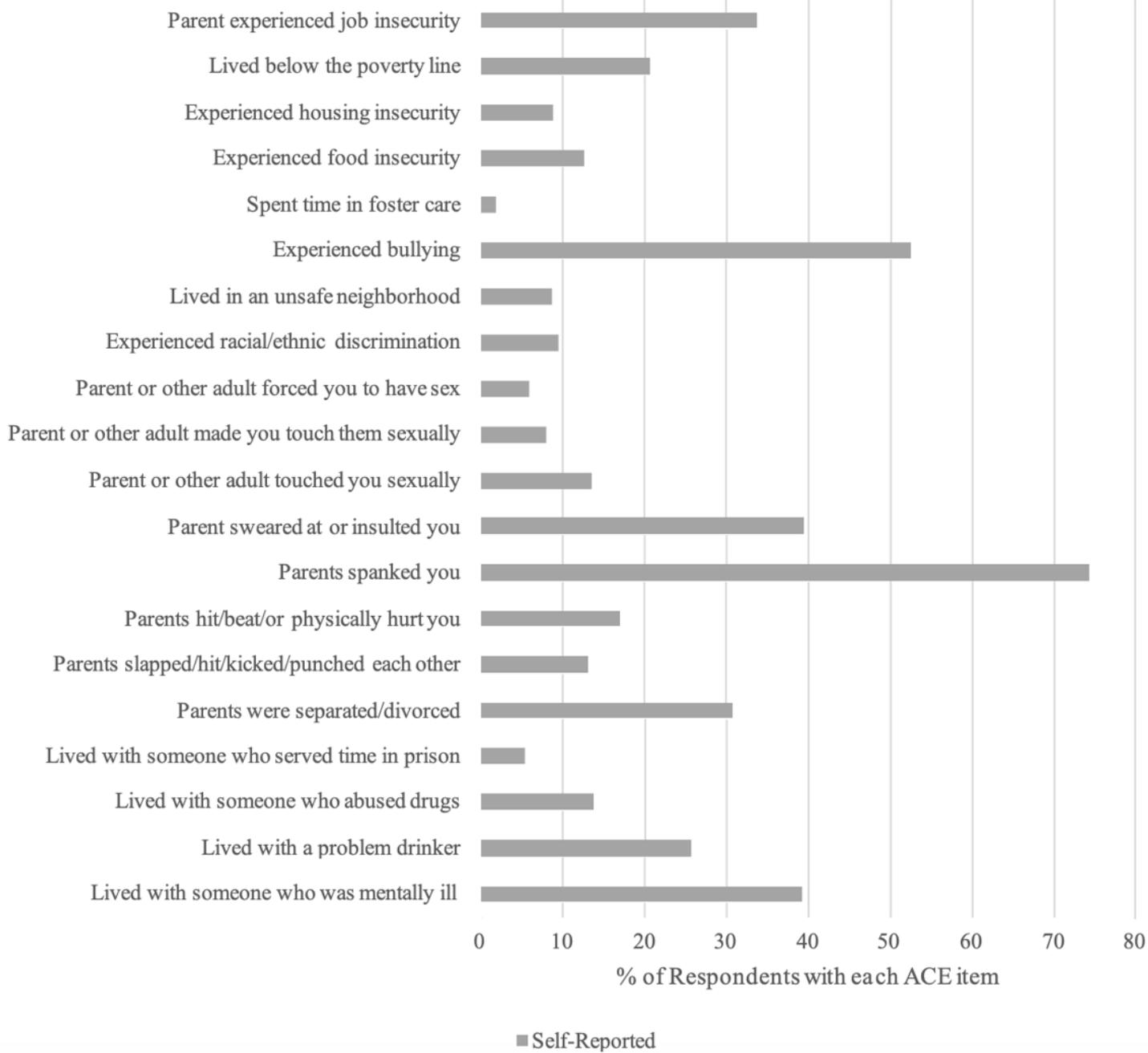


Figure 2

Proportion of Respondents who Self-Reported each ACE Exposure

Supplementary Files

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