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Risk, Emotional Support, Child Abuse Potential, and Parenting During the First Year of the COVID-19 Pandemic

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Abstract

The COVID-19 pandemic and associated mitigation efforts created stress that threatened parent and child well-being. Conditions that increase stress within families heighten the likelihood of child abuse, but social support can mitigate the impact. This short-term investigation considered whether cumulative risk, COVID-19 specific risk, and emotional support (one aspect of social support), were associated with child abuse potential during the pandemic. Additionally, we investigated whether emotional support moderated the association between COVID-19 specific risk and child abuse potential, and associations between child abuse potential and emotionally positive and emotionally negative parenting. Participants included 89 parents, from a metropolitan area with a large number of economically distressed families, who completed online questionnaires. COVID-19 specific risk and emotional support each explained additional variance in child abuse potential beyond cumulative risk, but emotional support did not moderate the association between COVID-19 specific risk and child abuse potential. Consistent with expectations, child abuse potential was negatively associated with emotionally positive parenting and positively associated with emotionally negative parenting practices. Results highlight the importance of addressing both risks and supports at multiple levels for parents during times of stress.

Keywords

child abuse, parenting, COVID-19, risk factors

Introduction

COVID-19 was declared a pandemic on March 11, 2020, and became a national emergency in the United States on March 13, 2020. For many families, the pandemic and related mitigation efforts brought multiple domains of stress related to illness, grief, job loss, food and health care inaccessibility, changes in routines, and isolation, as many began working from home, schools went remote, and activities and events were canceled (APA, 2020). Stress and isolation are established risk factors for physical child abuse (Centers for Disease Control and Prevention, 2020; Moncher, 1995), and early in the pandemic scientists and practitioners raised concerns about possible increases in child maltreatment (Humphreys et al., 2020). Subsequent research supported these concerns (Kim, 2022; Petrowski et al., 2021).

The present study, which includes two waves of data collection, adds to this literature by examining whether cumulative risk (i.e., parental education, Medicaid receipt, number of children, and relationship status), COVID-19 specific risks (i.e., reported impact of the pandemic on income, food access, and access to health care), and perceived emotional support were associated with parents' child abuse potential. Child abuse potential is a constellation of attitudes and behaviors closely linked to abusive parenting

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practices. Expanding on previous work during the pandemic (Brown et al., 2020; Rodriguez et al., 2021), we also examined whether child abuse potential was associated with reported emotionally positive and emotionally negative parenting.

The COVID-19 Pandemic and Child Abuse

Many investigators have expressed concern that pandemic-related stressors might lead to a rise in child maltreatment, including physical child abuse (Bullinger et al., 2021; Rodriguez et al., 2021). Parents are more likely to feel distressed and use harsh discipline practices when stressors and pressures increase, which in turn heightens risk for physical child abuse (Gard et al., 2020). The pandemic increased child maltreatment risk factors, such as parental stress, unemployment, and isolation (Katz et al., 2021; Katz, 2021). However, reports from early in the COVID-19 pandemic showed *reduced* reports of child maltreatment, including physical child abuse (Brown et al., 2022). For instance, using spatiotemporal analysis, Barboza et al. (2021) found a steep decline in reports of child abuse and neglect to the Los Angeles police department during six months of the first year of the pandemic compared to the previous six months. While on the surface this reduction in reports of maltreatment might be viewed positively, some argued that the prevalence of child maltreatment may have actually been *increasing*, and that the reduction in identified child abuse cases was the result of decreased observations by mandated reporters (e.g., teachers) that stemmed from COVID-19 social isolation mandates and shutdowns of schools and childcare centers (Baron et al., 2020; Katz et al., 2021).

Multiple investigations over the course of the pandemic have documented an increased prevalence of child maltreatment, lending support to this interpretation. These investigations relied on alternate approaches for documenting child maltreatment, such as calls to child helplines and hotlines (Kim, 2022; Petrowski et al., 2021), analysis of social media postings (Babvey et al., 2021), and self- and third-party referrals for child assessment and health-related services (Rengasamy et al., 2022). These alternative assessment methods provide substantial evidence for a rise in parental child maltreatment during the pandemic. For instance, Kovler et al. (2021), analyzed data from a level I pediatric trauma center and reported increases in traumatic injuries due to physical abuse from 2018/2019. Additionally, Babvey et al. (2021) observed increased abusive conversations and violence-related testimonials within youths' social media posts following COVID-19 shutdowns. Similarly, Kim (2022) reported increased rates of child abuse reporting hotline calls, findings that were linked with paternal unemployment. Rengasmy et al. (2022) found an almost 200-fold increase in rates of self- and third-party referrals for child abuse assessment, in contrast to decreasing rates of reports of domestic abuse and child maltreatment by police and pediatric professionals. Moreover, cases assessed by Child Advocacy Centers in France showed increased severity of maltreatment following the COVID-19 shutdown (Massiot et al., 2022).

In a review of studies of children's exposure to violence conducted during the first year of the pandemic, Cappa & Jijon (2021) found that most relied on administrative records, while other data sources, such as surveys or big data, were less commonly employed (Cappa & Jijon, 2021). In one study of parents' reports on their parenting during the pandemic, 267 parents of young children completed online questionnaires (Hails et al., 2022). Parents' experience of COVID-19 distress was associated with reported negative parenting (i.e., Hostility, Physical Control, and Lax Control). This association was intensified for parents who reported experiencing a larger number of adverse childhood experiences.

Child Abuse Potential

Whereas the COVID-19 pandemic presented a unique challenge for child protection professionals in terms of preventing and identifying child maltreatment (Katz, 2021; Katz et al., 2021), it also presented barriers to researchers seeking to measure child maltreatment and understand processes that lead to child abuse. However, many of the challenges in measuring physical child abuse were already present before the pandemic. In seeking to measure child abuse, researchers can, of course, directly ask parents about parenting practices, or can instead evaluate substantiated reports of abuse. Both of these approaches, however, are highly vulnerable to under-identification; parents are reluctant to report abusive practices, not only because they are highly stigmatized but also because they could lead to involvement with child protective service workers and other legal authorities (Ammerman, 1998). Additionally, most instances of physical child abuse are not reported to authorities and are not substantiated (Ammerman, 1998; Chaffin & Valle, 2003).

Indirect measurement approaches seek to address these shortcomings by assessing a constellation of factors that are proximally related to abusive parenting (Milner, 1994). The Child Abuse Potential Inventory (CAP; Caliso & Milner, 1994; Milner, 1994) and the subsequent Brief Child Abuse Potential Inventory (BCAP; Ondersma et al., 2005) are indirect measures that, instead of directly asking about physical child abuse, evaluate related proximal risk factors associated with child abuse including feelings of distress, feelings of persecution, family conflict, and rigidity (Caliso & Milner, 1994; Milner, 1994). Child abuse potential is related to a wide range of contextual stressors, including low-income status (Wilson et al., 2004), single parenthood (Merritt, 2009), a greater number of children living in the household (Nair et al., 2003; Brown et al., 2020), lower parental education level (Liel et al., 2019), and greater exposure to familial or community violence (Guterman et al., 2009; Rodriguez et al., 2010). Inadequate parental social support is also linked to higher child abuse potential (Budd et al., 2000).

Additionally, a sizable body of research demonstrates that the accumulation of multiple risk factors is especially problematic (e.g., Deater-Deckard et al., 1998). The presence versus absence of multiple contextual risk factors (e.g., low parental education, single parenthood, receipt of Medicaid) can be summed to generate a cumulative risk index. A growing body of literature suggests that cumulative risk indices are strongly related to parenting and other outcomes. For example, studies have uncovered links between lower levels of cumulative risk and indicators of positive parenting (Doan et al., 2012; Trentacosta et al., 2008). Conversely, higher levels of cumulative risk are associated with adverse parenting practices and increased likelihood of child maltreatment (Gach et al., 2018).

Several studies also document an association between cumulative risk and child abuse potential. These associations exist across diverse samples, including substance-using mothers and their infants (Nair et al., 2003); parents with school-aged children (Lamela & Figueiredo, 2018); and a community sample of parents of young children (Begle et al., 2010). Similarly, cumulative risk was also associated with child abuse potential in a study of diverse mothers of young children (McGoron et al., 2020).

Prior to the COVID-19 pandemic, research also clearly demonstrated that child abuse potential is related to both reported (Rodriguez, 2010) and observed (Wilson et al., 2004) parenting practices. Child abuse potential increases among parents who use less positive and more negative parenting practices (Haskett et al., 1995; Rodriguez, 2010). For instance, Rodriguez (2010) summarized the results of multiple studies showing that parents' child abuse potential was related to overreactivity, lax discipline, physical assault of children, and psychological aggression. In another study using observational methods with a sample of 108 mothers and children, mothers with high child abuse potential expressed less positive regard for their young children (Paschall et al., 2019). Moreover, child abuse potential differentiates physically abusive from non-abusive parents (Caliso & Milner, 1994), and children of parents with high child abuse potential have similar outcomes to children who have experienced substantiated child abuse, including fewer adaptive skills, poorer academic functioning, and more psychiatric problems such as anxiety and depression (Freer et al., 2017).

These findings suggest that understanding the processes that lead to heightened child abuse potential is critical, particularly during a public health emergency linked to heightened parental stress, such as the COVID-19 pandemic. Additionally, studying the accumulation of multiple areas of contextual risk rather than individual risk factors separately may promote understanding of processes that heighten child abuse potential. Beyond established risk factors for child abuse potential, it is also unclear whether new risks brought on by the COVID-19 pandemic further heightens parents' child abuse potential.

Emotional Support

Protective factors that mitigate the impact of risks on child abuse potential must also be considered. Emotional support is one key aspect of the broader construct of social support. Perceived emotional support, such as feeling cared for, valued, or supported by others, is robustly linked to biobehavioral stress resilience in diverse populations, including individuals exposed to chronic adversity (Sim et al., 2019). Higher perceived social support is associated with positive mental health outcomes such as lower depressive symptoms (Wang et al., 2018). Similar associations are reported for parents from heterogeneous socioeconomic status and racial/ethnic backgrounds. For example, higher parental perceived social support is linked to lower depressive symptoms (Beeghly et al., 2017) and to less negative parenting behavior (Ceballo & McLoyd, 2002).

Social support is also linked to lower child abuse potential and consistent with the buffering hypothesis (Lakey & Cohen, 2000), may play a critical role in mitigating the impact of risk on child abuse potential. For instance, McGoron et al. (2020) found a direct association between social support and child abuse potential in a sample of mothers of young children ($n = 87$). Social support in that study also mitigated the association between cumulative risk (i.e., accumulation of sociocontextual risk factors) and child abuse potential, such that cumulative risk was unrelated to child abuse potential when parents reported higher levels of social support. While COVID-19 mitigation efforts such as school closures and mandates for isolation and social distancing may have attenuated access to social and emotional support, families that were able to maintain or even build supportive connections with others may have been more likely to overcome the negative impacts of the pandemic (Prime et al., 2020).

Child Abuse Potential during the COVID-19 Pandemic

Several investigators have looked at child abuse potential as an outcome during the COVID-19 pandemic. In the one investigation, Brown et al. (2020) examined multiple risk and protective factors in relation to perceived stress and child abuse potential in a predominantly White sample of 183 parents. Stress and child abuse potential were moderately related, and parental receipt of financial assistance, receipt of parenting support, and perceived control over the pandemic were each independently associated with child abuse potential. Surprisingly, there was not a significant association between a variable reflecting the cumulative number of domains parents perceived as impacted by COVID (i.e., their mood/stress, physical health, relationship with partner, children's physical health, and children's learning) and child abuse potential. However, even after accounting for demographic factors and psychosocial risk factors such as stress and mental health, parental support was still related to child abuse potential.

In an investigation with 106 parents (60% of whom were White) of young children, Rodriguiez et al., (2021) used two measures of abuse risk, including the BCAP. Heightened abuse risk was associated with pandemic-related job loss and negative parenting practices including more spanking, yelling, parent-child conflict, verbal aggression, and neglect. In the present study, we add to the literature by further considering the impact of stress and support on child abuse potential during the pandemic, as guided by a cumulative risk approach and the buffering hypothesis, within a sample where most of the parents were Black/African American parents. Further, we also investigated the association between child abuse potential and reported parenting in order to add to the literature on the validity of measuring child abuse potential.

The Present Investigation

The current investigation used data collected at two points during the COVID-19 pandemic to examine the role of the cumulative risk (i.e., an accumulation of contextual risk factors), COVID-19 specific risk, and perceived emotional support in relation to child abuse potential and reported parenting practices across the first year of the pandemic. We hypothesized that higher cumulative risk would be associated with higher child abuse potential (hypothesis 1) and that COVID-specific risk would explain additional variance in child abuse potential after controlling for cumulative risk (hypothesis 2). Further, we expected perceived emotional support to be negatively associated with child abuse potential after controlling for cumulative risk and COVID-specific risks (hypothesis 3). In addition, we considered whether emotional support moderated the association between COVID-19 specific risk and child abuse potential (hypothesis 4). Given that past research has linked child abuse potential to parenting practices, we hypothesized that child abuse potential would be negatively associated with parents' reports of emotionally positive parenting (hypothesis 5) and positively associated with emotionally negative parenting (hypothesis 6) during the pandemic.

Method

Participants

This project had two waves of data collection and included 195 participants in the initial survey (Spring, 2020). Eighty-nine parents completed the follow up survey (late Summer, 2020). The present investigation includes only the 89 parents who participated in the follow-up survey and uses data from both the initial and follow-up surveys. All participants had at least one child in preschool, elementary school, or middle school. Families resided in a large metropolitan area in the upper Midwestern region of the U.S. that reported one of the highest rates of COVID-19 cases and deaths during Spring 2020 (Austin & Hershbein, 2020). Participants were predominantly Black/African American mothers (see Table 1).

Measures

Cumulative Risk. A cumulative risk index was created by dichotomizing and summing four demographic risk factors measured during Spring, 2020: (a) low parental education (high school diploma or less = 1; any education beyond high school = 0); (b) single parent status (single, non-partnered = 1; partnered = 0); (c) Medicaid recipient (yes =1; no = 0); and (d) number of children in household (4 or more = 1; less than four children = 0; Sameroff, Seifer, Barocas, Zax, & Greenspan, 1987; Nair et al., 2003). Possible scores ranged from 0-4 with higher scores indicating more risk factors present.

COVID-19 Specific Risk. COVID-19 specific risk, collected in Spring 2020, was measured with four items from the Coronavirus Impact Scale created by Stoddard et al. (2020). Parents were asked to think about "*Since the COVID-19 crisis*" and then rated the impact on *"income/employment*," "*food access," "medical health care access*," and "*mental health care access,"* using a 4-point Likert scale ranging from 1 (*no change*) to 4 (*severe*). Scores on items were averaged to compute a COVID-19 specific risk score.

Emotional Support. A scale from the Patient-Reported Outcomes Measurement Information System (PROMIS; Cella et al., 2010) was used to measure parents' perceived emotional support during Spring 2020. Eight items, rated on a 5-point Likert scale ranging from *Never (1)* to *Always (5)* made up the emotional support scale (e.g., *"I have someone to confide in or talk to about myself or my problems,"* "*I have someone who understands my problems,*" and "*I have someone that makes me feel appreciated*"). Items were summed and then converted to t-scores. Internal consistency for these items was excellent (Cronbach's α = .96).

Child Abuse Potential. The Brief Child Abuse Potential Inventory (BCAP; Ondersma et al., 2005), collected during late summer 2020, is a 24-item measure of child maltreatment risk consisting of items from the Child Abuse Potential Inventory (CAP; Milner, 1994; e.g., "I am often upset and do not know why.") with "*agree*," (1) "*disagree*," (0) responses. The CAP has repeatedly demonstrated the ability to differentiate physically abusive from non-abusive parents (e.g., Caliso & Milner, 1994; Milner, 1994), to predict future abuse (Chaffin & Valle, 2003), and to mark a degree of pre- to post-intervention change (Walker & Davies, 2010). The CAP also has good internal consistency estimates across sample groups and cultures. Scores on the BCAP risk scale range from 0 to 24 with a clinical cutoff of 9 (Ondersma et al., 2005). In a validation study (Ondersma et al., 2005), the BCAP risk scale showed substantial overlap with the full CAP (r = .96; Ondersma et al., 2005), a stable factor structure

Table 1. Demographic Characteristics of Study Participants (N = 89).

	n (%)	*M* (*SD*)
Number of children living in home	—	3.5 (1.2)
Race and ethnicity		
Black	58 (65.2)	—
White	14 (15.7)	—
Not Black Person of Color	7 (7.9)	—
Other/Choose not to answer	10 (11.2)	—
Parent-reported Sex:		
Female:	85 (95.5)	—
Male:	4 (4.5)	—
Child(ren) receive Medicaid?		
Yes	61 (68.5%)	—
No	28 (31.5%)	—
Parent highest level of education:		
Did not complete high school	7 (7.8)	—
High school graduate or GED	21 (23.6)	—
Some college	22 (24.7)	—
Associate's degree	11 (12.4)	—
Bachelor's degree	9 (10.1)	—
Master's degree	12 (13.5)	—
Doctoral degree (e.g., Ph.D., M.D., J.D.)	7 (7.9)	—

consistent with the original CAP, and an internal consistency estimate of .89. In that study, the BCAP also showed good positive and negative agreement (93% for both) with the full CAP risk cutoff. In the present investigation, internal consistency of the 24-item BCAP risk scale was strong (Cronbach's α = .85).

Emotionally Positive and Negative Parenting. Parenting was measured via six **items** rated by parents on a 5-point Likert scale ranging from "*not at all*," (1) to "*to a great extent*" (5) collected late summer 2020. Items were adapted from the Parent Child Home Data Questionnaire (Margolin, 1990) and were also used in other COVID-19 pandemic research (i.e., The Love in the Time of COVID Study; Balzarini et al., 2022). Three items were averaged to compute an *emotionally positive parenting* score. These items were "*Hugged or physically comforted my child(ren),*" "*Reassured my child(ren),*" and "*Praised my child(ren).*" Internal consistency for these items was adequate (Cronbach's α = .75). Three items were averaged to compute an emotionally negative parenting score. These items were "*Yelled at my child(ren),*" "*Was irritated with my child(ren),*" and "*Had arguments with my child(ren).*" Internal consistency for these items was good (Cronbach's α = .80).

Procedures

Parents were recruited from existing registries at a large urban university. All procedures were IRB approved. Each parent received a text message asking them to participate and, if needed, received text reminders. Parents from one participant registry also received a phone call to tell them about the project. Participants completed questionnaires through Qualtrics Survey Systems, with the exception of one participant who completed the survey over the phone. The first survey, completed Spring, 2020, took approximately 20 minutes to complete, and, relevant to this report, parents answered questions about their demographics, cumulative risk, COVID-19 specific risk, and emotional support. Parents were compensated with a $10 gift card or Clincard (a debit-like card). The second survey, collected late summer 2020, took approximately ten minutes to complete and, relevant to this investigation, parents answered questions about child abuse potential and parenting. Again, parents were compensated with a $10 gift card or Clincard.

We examined whether parents who completed the follow-up (n = 89) differed from those who completed data collection at the first time point but not the second (n = 106). We found no statistically significant differences between these groups on cumulative risk (t[163.82] = 1.25, p =.22), COVID-19 specific risk (t[191] = .27, p = .79), emotional support (t[178] = −.57, p = .57).

Data Analysis Plan

Data analyses began with examining missing data among the 89 participants who participated in both waves of data collection. At the variable level, missing data were rare. There were no missing data for cumulative risk or child abuse potential. The COVID-19 specific risk and emotional support variables were missing 2 and 4 cases, respectively. For the parenting variables, which were the last questionnaire surveys collected, there were 5 cases missing for emotionally positive parenting and 6 cases missing for emotionally negative parenting. Default settings for each analysis were used to handle missing data. Next, we computed descriptive statistics for all study variables and examined bivariate correlations among them.

Hypotheses 1-3 were examined with a hierarchical regression analysis with child abuse potential entered as the outcome variable. Cumulative risk was entered in the first step, COVID-19 specific risk was entered in the second step, and emotional support was entered into the third step. Next, the PROCESS macro Model 1 (Hayes, 2022) for SPSS was used to test hypothesis 4 (i.e., Does emotional support moderate the association between COVID-19 risk and child abuse potential?). This model tests the conditional association of the direct association at different levels (i.e., at the mean, 1 *SD* below the mean, and 1 *SD* above the mean) of the proposed moderating variable. PROCESS creates bias-corrected 95% confidence intervals (CIs) of associations using bootstrapping, which is a resampling technique. In this analysis, cumulative risk was entered into the model as a control variable, child abuse potential was entered as the outcome variable, COVID-19 specific risk was entered as the predictor variable, and emotional support was entered as the potential moderating

variable. The PROCESS macro uses listwise deletion, which resulted in a small change to the sample size. That is, 84 cases were included in the PROCESS analyses. Additionally, in order to determine if the study was powered to detect moderation, a power analysis was conducted with the software G*power to determine the sample size needed for small and medium effect sizes (Faul et al., 2007). To test hypotheses 5 and 6, two hierarchical regression analyses were carried out with emotionally negative and emotionally positive parenting entered as outcome variables. To control for cumulative risk, COVID-19 specific risk, and emotional support, these variables were entered in the first step, and child abuse potential was entered into the second step.

Results

Bivariate Correlations

Means and standard deviations for the study variables, and bivariate correlations among them, are presented in Table 2. In general, the pattern of results was consistent with expectations. Child abuse potential was correlated with all other study variables in expected directions. Cumulative risk, COVID-19 specific risk, and emotional support were each significantly correlated with child abuse potential in expected directions. Interestingly, cumulative risk and COVID-19 specific risk were not significantly related to each other. COVID-19 specific risk also did not correlate with either negative or positive parenting. Cumulative risk was negatively correlated with emotionally positive parenting, but unrelated to emotionally negative parenting. Additionally, emotionally negative and positive parenting were significantly and negatively correlated with each other, but only modestly.

Risk, Emotional Support, and Child Abuse Potential

A hierarchical linear regression was used to evaluate associations between cumulative risk, COVID 19 specific risk, and emotional support with child abuse potential. Cumulative risk was entered in step 1, followed by COVID-19 specific risk in step 2, and emotional support in step 3. Regression results are presented in Table 3. Cumulative risk was significantly associated with child abuse potential in step 1. When COVID-19 specific risk was added to the model in step 2, it predicted unique variance in child abuse potential beyond cumulative risk. Moreover, in step 3, emotional support explained additional variance in child abuse potential beyond cumulative risk and COVID-19 specific risk.

Emotional Support as a Moderator

Building on the regression results, emotional support was further evaluated as a potential moderator of the association between COVID-19 specific risk and child abuse potential using PROCESS (Hayes, 2022). In this analysis, controlling for cumulative risk, emotional support did not moderate the association between COVID-19 specific risk and child abuse potential. Specifically, in the PROCESS analyses (model 1), the confidence interval (CI) for the interaction term crossed zero (lower limit CI = −.04; upper limit CI = .28), which did not support the moderation hypothesis. Importantly, results of the power analysis, demonstrated that 395 participants would be needed to detect a small interaction effect and a sample size of 55 was reported as needed for a medium interaction effect.

Associations between Child Abuse Potential and Reports of Parenting

Separate hierarchical linear regression analyses examined whether child abuse potential was related to reported emotionally positive and emotionally negative parenting while controlling for other key study variables (i.e., cumulative risk, COVID-19 specific risk, and emotional support). Results are presented in Table 4 and show significant associations between child abuse potential and both emotionally positive and emotionally negative parenting.

Discussion

The COVID-19 pandemic created stress and isolation for many families, leading to concern regarding possible increases in child maltreatment. The current study sought to examine the role of cumulative risk, COVID-19 specific risk, and parents' perceived emotional support in relation to child abuse potential across the first year of the pandemic in a socioeconomically diverse sample of 89 parents, of whom nearly 2/

Table 2. Mean and Standard Deviations of Study Variables and Correlations among Variables.

	M (*SD*)	1.	2.	3.	4.	5.	6.
1. Cumulative risk	1.97 (1.43)	—					
2. COVID-19 specific risk	1.89 (.61)	.02	—				
3. Emotional support	49.34 (10.06)	−.31**	−.02	—			
4. Child abuse potential	5.28 (5.04)	.33**	.26*	−.37**	—		
5. Emotionally positive parenting	4.33 (.63)	−.30**	.07	.38**	−.35**	—	
6. Emotionally negative parenting	2.54 (.89)	−.05	.09	−.40**	.46**	−.28*	—

*$p < .05$, **$p < .01$.

3rds were Black/African American. Cumulative risk, COVID-19 specific risk, and parents' perceptions of emotional support were all associated with child abuse potential in the expected directions. Contrary to expectations, however, emotional support did not moderate the association between risk and abuse potential. Finally, as hypothesized, child abuse potential was negatively related to parents' reports of emotionally positive parenting and positively associated with emotionally negative parenting.

The results of this investigation are largely consistent with, and expand upon, the larger cumulative risk literature. Cumulative risk research indicates that, while individuals may be able to cope with one area of risk, those facing risks in multiple areas are less likely to adapt. Although multiple studies show that cumulative risk is linked to child abuse potential, the specific risk factors and the number of risk factors included in the cumulative risk index vary greatly from study to study. While the present investigation only included four factors that align with risks routinely included in prior cumulative risk assessments, a significant association with child abuse potential *still* emerged. Additionally, past investigations were carried out prior to the COVID-19 pandemic. The present investigation suggests that, even during a global emergency, considering cumulative risk remains important in understanding the factors that heighten parents' child abuse potential.

Beyond replicating the association between cumulative risk and child abuse potential, this study further demonstrated that COVID-19 specific risk was independently related to child abuse potential, after controlling for cumulative risk. Interestingly, cumulative risk and COVID-19 specific risk were unrelated in our sample. This may suggest that stressors experienced due to the pandemic did not just impact those already facing adversity, but rather introduced new experiences of adversity, at least in measured domains, for some families. COVID-19 specific risk signifies parents' experience of the pandemic impacting crucial basic needs, including food, employment, and health care, and higher reported impact was positively associated with greater child abuse potential.

On the surface, these findings appear to contradict results in the Brown et al. (2020) study, wherein a construct termed "COVID stressors" was unrelated to child abuse potential. Differences in measurement may explain these seemingly contradictory findings. COVID-19 specific risk in the current study was operationalized as disruptions in family income, food access, medical care access, and mental health access, reflecting the extent to which basic needs were being met. In contrast, Brown et al. (2020) had parents select all of the domains they perceived were impacted by the pandemic, including their mood/stress, physical health, relationship with partner, children's physical health, and children's learning. The investigators then created a composite variable summing each selected area. Brown et al. (2020) also established that one aspect of perceived social support, parenting support (i.e., emotional and social support in parenting), was negatively associated with child abuse potential even when accounting for multiple areas of general and COVID-specific risk. The present investigation considered a specific aspect of

Table 3. Multiple Regressions Examining Cumulative Risk, COVID-19 Impact, and Emotional Support as Predictors of Child Abuse Potential.

	Child Abuse Potential				
	B	*B*	R^2	$R^2\Delta$	F (df1, df2)
Step 1:			.12	.12	11.47(1,82)**
Cumulative risk	1.25	.35**			
Step 2:			.21	.08	8.63(1,81)**
Cumulative risk	1.18	.33**			
COVID-19 specific risk	2.59	.29**			
Step 3:			.28	.07	7.97(1,80)**
Cumulative risk	.88	.25*			
COVID-19 risk	2.59	.29**			
Emotional support	−1.43	−.28**			

*$p < .05$; **$p < .01$.

Table 4. Multiple Regressions Examining Child Abuse Potential as a Predictor of Emotionally Positive and Emotionally Negative Parenting.

	Emotionally Positive Parenting					Emotionally Negative Parenting				
	B	*B*	R2	$R^2\Delta$	F (df1, df2)	B	β	R^2	$R^2\Delta$	F (df1, df2)
Step 1:			.20	.20	6.14 (3,76)***			.20	.20	6.55 (3,77)***
Cumulative risk	−.10	−.23*				−.10	−.17			
COVID-19 specific risk	.14	.13				.15	.09			
Emotional support	.02	.30**				−.04	−.47**			
Step 2:			.25	.05	5.22 (1,75)*			.34	.14	15.83(1,76)***
Cumulative risk	−.08	−.17				−.17	−.28**			
COVID-19 specific risk	.22	.20				.04	−.03			
Emotional support	.01	.22				−.03	−.33**			
BCAP	−.03	−.27*				.08	.44***			

*$p < .05$; **$p < .01$; ***$p < .001$\.

social support, emotional support. Emotional support explained additional variance in child abuse potential beyond cumulative and COVID-19 risk.

Contrary to expectations, emotional support did not moderate the association between risk and child abuse potential. Our expectations were based on the *buffering hypothesis* (Lakey & Cohen, 2000), which posits that social support can be protective against the negative impact of stress. Prior to the pandemic, McGoron et al. (2020), with a similarly sized sample of 87 parents, found that social support buffered the impact of cumulative risk on child abuse potential. It is important to note that the current study was underpowered, according to analysis in G*Power, to detect small (but not medium) interaction effects and this may have led to the null results. Results should be interpreted cautiously and within the context of the small sample size. It may also be that, within the context of the ongoing pandemic, the type of support measured in this investigation, *emotional support*, may have been inadequate to buffer against the threat to basic needs caused by the pandemic. More specifically, in addition to needing emotional support, parents may have specifically needed additional instrumental support (i.e., help overcoming stressors such as loaning money to someone recently unemployed). That is, the earliest months of the pandemic were a time when many people were physically isolated from one another and, thus, were limited in the amount and type of support they could provide. The *matching hypothesis* (Gore & Aseltine, 1995) suggests that, for social support to buffer against stress, the support provided must match the stressor experienced. Emotional support was significantly associated with child abuse potential, but it may not have been sufficiently matched to the needs of those facing heightened COVID-19 specific risk and, thus, did not provide a buffering effect.

Consistent with hypotheses, child abuse potential was significantly related to reported parenting practices. These results are consistent with the findings of Rodriguez et al. (2021) who also found associations between child abuse potential and adverse parenting practices during the pandemic and further support the validity of the BCAP. In the present investigation, parents with higher child abuse potential reported engaging in less emotionally positive parenting practices (e.g., parent hugging, praising, and reassuring child) and more emotionally negative parenting practices (e.g., parent yelling at, arguing with, or being irritated at child). Although the current study did not measure actual physical child abuse, past investigations link child abuse potential to parents' physically abusive parenting practices (e.g., Rodriguez, 2010).

Strengths, Limitations, and Future Directions

The current study has both strengths and limitations that should be considered when evaluating the results. Strengths of this study include a predominantly Black/African American sample that faced high adversity, which was recruited from a location in the US particularly impacted by COVID-19 stress early in the pandemic, and two waves of data collection. The study also had several limitations. First, the sample was smaller than desired (i.e., 195 parents participated at the first time point and only 89 were reached for follow up), potentially limiting statistical power. Although we did not find any differences in stress or support when comparing those who did versus did not complete the second wave of data collection, indicating no differential attrition on these measures, we cannot rule out that these groups may have differed in other important ways. For the moderation analysis, power analysis showed the study was underpowered to detect small effect sizes. Further, while race of participants was measured, the small sample size did not allow for considering if the same patterns of results was consistent within racial groups. Next, all measures used in this study, though psychometrically strong, were based on parent report, and were collected relatively close in time (i.e., approximately 4–5 months apart). This shared method variance may have increased the likelihood of finding significant associations.

The extent to which changes in CAP scores (and, by extension, the BCAP used in this investigation) reflect dynamic changes in child abuse potential and other risks is an additional limitation. Although at least one review (Walker and Davies, 2010) suggests that CAP scores may be useful indicators of intervention-related change, Chaffin and Valle (2003) found that, although baseline child abuse potential scores were significantly associated with long-term risk, the same was not true for pre-post changes in child abuse potential. Rigorous analyses of dynamic predictive validity like that done by Chaffin and Valle are rare and represent a higher burden of proof than is typically applied to risk measures. Notably, Walker and Davies (2010) conclude, as have others investigating this issue, that more research is needed to clarify the meaning of reductions in CAP scores.

Despite these limitations, the results from this investigation add to our understanding of how practitioners and policymakers could promote family well-being, and prevent child abuse potential more effectively, especially in situations that heighten stress at a local, state, national, and global level such as the COVID-19 pandemic. Given that cumulative risk, COVID-19 specific risk, and emotional support each contributed to parents' child abuse potential, these results suggest that parents need additional support at all these levels.

At the present time, domains of COVID-related risk and associated stress and trauma may persist for many families especially those with an immunocompromised family member, those with long COVID symptoms, and those that lost a family member due to COVID-19. Targeted interventions to address the continued needs of those most impacted by COVID-19 are needed. Those delivering clinical services to parents and families may consider screening for the continued impact the pandemic (e.g., death of a family member due to the pandemic) on families and put in place supportive services

specific to that impact (e.g., referring families to grief counseling). Additionally, research that examines whether and how COVID-19 risk persists and the stability of emotional support and parenting practices is needed in order to best tailor such intervention approaches. This research could help distinguish approaches that may be best implemented at points in time when stress could become heightened again (e.g., future surges, or when a temporary disruption to work or schooling occurs due to family members contracting COVID-19) versus approaches needed to address systemic inequities.

Parents who are experiencing risk at multiple levels need systemic supports to help them overcome the longer-term challenges that were introduced or exacerbated by the pandemic. This systemic support needs to address not only their specific basic needs such as providing access to food, employment opportunities, or emergency funds for those unemployed, but also provide families with accessible medical and mental health care. Given the ongoing role of structural racism in the metropolitan catchment area and throughout the United States, further attention to public health prevention services and continued efforts to support and empower families is necessary to eliminate disparities. Communities also need to provide more opportunities for families to develop supportive social relationships as both emotional support and support that directly aids in overcoming challenges (e.g., instrumental support) are crucial during times of heightened stress. Community-based programs appear to be an ideal approach to mobilize quickly to meet the complex needs of the families they serve (Duane et al., 2020). Connecting families with other parents and community members to broaden their parenting support networks may also be beneficial. Our findings suggest that child abuse prevention is best understood in the context of risk and support at the community level. A community-based prevention strategy could help ensure that families have multiple layers of protection from pernicious forms of adversity and stress that could linger well after the end of the pandemic.

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References

American Psychological Association. (2020). *Stress in America 2020: Stress in the time of COVID-19*. Volume 1. American Psychological Association

Ammerman, R. T. (1998). Methodological issues in child maltreatment research. In J. R. Lutzker (Ed), *Handbook of child abuse research and treatment* (pp. 117–132). Plenum Press. https://doi-org.proxy.lib.wayne.edu/10.1007/978-1-4757-2909-2_5

Austin, J. C., & Hershbein, B. J. (2020). *Why COVID-19 hit Michigan so hard*. The Avenue.

Babvey, P., Capela, F., Cappa, C., Lipizzi, C., Petrowski, N., & Ramirez-Marquez, J. (2021). Using social media data for assessing children's exposure to violence during the COVID-19 pandemic. *Child Abuse & Neglect*, *116*(2), 1126. https://doi.org/10.1016/j.chiabu.2020.104747

Balzarini, R. N., Slatcher, R. B., & Zoppolat, G. (2022). *Love in the time of COVID*.

Barboza, G. E., Schiamberg, L. B., & Pachl, L. (2021). A spatiotemporal analysis of the impact of COVID-19 on child abuse and neglect in the city of Los Angeles, California. *Child Abuse & Neglect*, *116*(Part 2). https://doi.org/10.1016/j.chiabu.2020.104740

Baron, J. E., Goldstein, E. G., & Wallace, C. T. (2020). Suffering in silence: How COVID-19 school closures inhibit the reporting of child maltreatment. *Journal of Public Economics*, *190*(2), 234. https://doi.org/10.1016/j.jpubeco.2020.104258

Beeghly, M., Partridge, R. T., Tronick, E., Muzik, M., Rahimian Mashhadi, M., Boeve, J. L., & Irwin, J. L. (2017). Associations between early maternal depressive symptom trajectories and toddlers' felt security at 18 months: Are boys and girls at differential risk? *Infant Mental Health Journal*, *38*(1), 53–67. https://doi.org/10.1002/imhj.21617

Begle, A. M., Dumas, J. E., & Hanson, R. F. (2010). Predicting child abuse potential: An empirical investigation of two theoretical frameworks. *Journal of Clinical Child and Adolescent Psychology*, *39*(2), 208–219. https://doi.org/10.1080/15374410903532650

Brown, S. M., Doom, J. R., Lechuga-Peña, S., Watamura, S. E., & Koppels, T. (2020). Stress and parenting during the global COVID-19 pandemic. *Child Abuse & Neglect*, *110*(2), 208. https://doi.org/10.1016/j.chiabu.2020.104699

Brown, S. M., Orsi, R., Chen, P., Everson, C. L., & Fluke, J. (2022). The impact of the COVID-19 pandemic on child protection System referrals and responses in Colorado, USA. *Child Maltreatment*, *27*(1), 3–11. https://doi.org/10.1177/10775595211012476

Budd, K. S., Heilman, N. E., & Kane, D. (2000). Psychosocial correlates of child abuse potential in multiply disadvantaged adolescent mothers. *Child Abuse & Neglect*, *24*(5), 611–625. https://doi-org.proxy.lib.wayne.edu/10.1016/S0145-2134(00)00122-8

Bullinger, L. R., Raissian, K. M., Feely, M., & Schneider, W. J. (2021). The neglected ones: Time at home during COVID-19 and child maltreatment. *Children and Youth Services Review*, *131*(1), 106287.

Caliso, J. A., & Milner, J. S. (1994). Childhood physical abuse, childhood social support, and adult child abuse potential. *Journal of Interpersonal Violence*, *9*(1), 27–44.

Cappa, C., & Jijon, I. (2021). COVID-19 and violence against children: A review of early studies. *Child Abuse & Neglect*, *116*(Part 2). https://doi.org/10.1016/j.chiabu.2021.105053

Ceballo, R., & McLoyd, V. C. (2002). Social support and parenting in poor, dangerous neighborhoods. *Child Development*, *73*, 1310–1321. https://doi.org/10.1111/1467-8624.00473

Cella, D., Riley, W., Stone, A., Rothrock, N., Reeve, B., Yount, S., & Group, P.C. (2010). The Patient-Reported Outcomes Measurement Information System (PROMIS) developed and tested its first wave of adult self-reported health outcome item banks: 2005-2008. JJournal of Clinical Epidemiology. *Clin. Epidemiol*, *63*(11), 1179–1194.

Centers for Disease Control and Prevention (CDC) (2020). *Cases, data, and surveillance. Coronavirus disease 2019 (COVID-19)*. CDC. https://www.cdc.gov/coronavirus/2019-ncov/cases-update/index.html.

Chaffin, M., & Valle, L. A. (2003). Dynamic prediction characteristics of the child abuse potential inventory. *Child Abuse & Neglect*, *27*(5), 463–481.

Deater-Deckard, K., Dodge, K. A., Bates, J. E., & Pettit, G. S. (1998). Multiple risk factors in the development of externalizing behavior problems: Group and individual differences. *Development and Psychopathology*, *10*(3), 469–493. https://doi.org/10.1017/S0954579498001709

Doan, S. N., Fuller-Rowell, T. E., & Evans, G. W. (2012). Cumulative risk and adolescent's internalizing and externalizing problems: The mediating roles of maternal responsiveness and self-regulation. *Developmental Psychology*, *48*(6), 1529–1539. https://doi.org/10.1037/a0027815

Duane, A. M., Stokes, K. L., DeAngelis, C. L., & Bocknek, E. L. (2020). Collective trauma and community support: Lessons from Detroit. *Psychological Trauma: Theory, Research, Practice, and Policy*, *12*(5), 452–454. https://doi.org/10.1037/tra0000791

Faul, F., Erdfelder, E., Lang, A.-G., & Buchner, A. (2007). G*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods*, *39*(2), 175–191.

Freer, B. D., Sprang, G., Katz, D., Belle, C., & Sprang, K. (2017). The impact of child abuse potential on adaptive functioning: Early identification of risk. *Journal of Family Violence*, *32*(2), 189–196. https://doi.org/10.1007/s10896-016-9863-6

Gach, E. J., Ip, K. I., Sameroff, A. J., & Olson, S. L. (2018). Early cumulative risk predicts externalizing behavior at age 10: The mediating role of adverse parenting. Journal of. *Family Psychology*, *32*(1), 92–102. https://doi.org/10.1037/fam0000360

Gard, A. M., McLoyd, V. C., Mitchell, C., & Hyde, L. W. (2020). Evaluation of a longitudinal family stress model in a population-based cohort. *Social Development*, *29*(4), 1155–1175. https://doi.org/10.1111/sode.12446

Gore, S., & Aseltine, R. H. (1995). Protective processes in adolescence: Matching stressors with social resources. *American Journal of Community Psychology*, *23*(3), 301–327. https://doi.org/10.1007/BF02506947

Guterman, N. B., Lee, S. J., Taylor, C. A., & Rathouz, P. J. (2009). Parental perceptions of neighborhood processes, stress, personal control, and risk for physical child abuse and neglect. *Child Abuse & Neglect*, *33*(12), 897–906. https://doi.org/10.1016/j.chiabu.2009.09.008

Hails, K. A., Petts, R. A., Hostutler, C. A., Simoni, M., Greene, R., Snider, T. C., & Riley, A. R. (2022). COVID-19 distress, negative parenting, and child behavioral problems: The moderating role of parent adverse childhood experiences. *Child Abuse & Neglect*, *130*(Pt 1), 105450. https://doi.org/10.1016/j.chiabu.2021.105450

Haskett, M. E., Scott, S. S., & Fann, K. D. (1995). Child abuse potential inventory and parenting behavior: Relationships with high-risk correlates. *Child Abuse & Neglect*, *19*(12), 1483–1495. https://doi.org/10.1016/0145-2134(95)00107-4

Hayes, A. F. (2022). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach (methodology in the social sciences* (Third Edition). The Guilford Press.

Humphreys, K. L., Myint, M. T., & Zeanah, C. H. (2020). Increased risk for family violence during the COVID-19 pandemic. *Pediatrics*, *146*(1), e20200982. https://doi.org/10.1542/peds.2020-0982

Katz, C. (2021). What happened to the prevention of child maltreatment during COVID-19? A yearlong into the pandemic reflection. *International Journal on Child Maltreatment: Research, Policy and Practice*, *4*(2), 137–144. https://doi.org/10.1007/s42448-021-00076-8

Katz, C., Priolo Filho, S. R., Korbin, J., Bérubé, A., Fouché, A., Haffejee, S., Kaawa-Mafigiri, D., Maguire-Jack, K., Muñoz, P., Spilsbury, J., Tarabulsy, G., Tiwari, A., Thembekile Levine, D., Truter, E., & Varela, N. (2021). Child maltreatment in the time of the COVID-19 pandemic: A proposed global framework on research, policy and practice. *Child Abuse & Neglect*, *116*(Pt 2), 104824. https://doi.org/10.1016/j.chiabu.2020.104824

Kim, Y. E. (2022). Unemployment and child maltreatment during the COVID-19 pandemic in the Republic of Korea. *Child Abuse & Neglect*, *130*(1). https://doi.org/10.1016/j.chiabu.2021.105474

Kovler, M. L., Ziegfeld, S., Ryan, L. M., Goldstein, M. A., Gardner, R., Garcia, A. V., & Nasr, I. W. (2021). Increased proportion of physical child abuse injuries at a level I pediatric trauma center during the Covid-19 pandemic. *Child Abuse & Neglect*, *116*(Pt 2), 104756. https://doi.org/10.1016/j.chiabu.2020.104756

Lakey, B., & Cohen, S. (2000). Social support theory and measurement. In S. Cohen, L. G. Underwood, & B. H. Gottlieb (Eds), *Social support measurement and intervention: A guide for health and social scientists* (pp. 29–52). Oxford University Press. https://doi.org/10.1093/med:psych/9780195126709.003.0002

Lamela, D., & Figueiredo, B. (2018). A cumulative risk model of child physical maltreatment potential: Findings from a community-based study. *Journal of Interpersonal Violence*, *33*(8), 1287–1305. https://doi.org/10.1177/0886260515615142

Liel, C., Meinck, F., Steinert, J. I., Kindler, H., Lang, K., & Eickhorst, A. (2019). Is the brief child abuse potential inventory (BCAPI) a valid measure of child abuse potential among mothers and fathers of young children in Germany? *Child Abuse & Neglect*, *88*, 432–444. https://doi.org/10.1016/j.chiabu.2018.11.008

Margolin, G. (1990). *Parent home data questionnaire*. University of Southern California.

Massiot, L., Launay, E., Fleury, J., Poullaouec, C., Lemesle, M., Guen, C. G., & Vabres, N. (2022). Impact of COVID-19 pandemic on child abuse and neglect: A cross-sectional study in a French child advocacy center. *Child Abuse & Neglect*, *130*(Part 1), 1–7. https://doi-org.proxy.lib.wayne.edu/10.1016/j.chiabu.2021.105443

McGoron, L., Riley, M. R., & Scaramella, L. V. (2020). Cumulative socio-contextual risk and child abuse potential in parents of young children: Can social support buffer the impact? *Child & Family Social Work*. Advanced Online Publication. https://doi-org.proxy.lib.wayne.edu/10.1111/cfs.12771

Merritt, D. H. (2009). Child abuse potential: Correlates with child maltreatment rates and structural measures of neighborhoods. *Children and Youth Services Review*, *31*(8), 927–934. https://doi.org/10.1016/j.childyouth.2009.04.009

Milner, J. S. (1994). Assessing physical child abuse risk: The child abuse potential inventory. *Clinical Psychology Review*, *14*(6), 547–583. https://doi.org/10.1016/0272-7358(94)90017-5

Moncher, F. J. (1995). Social isolation and child-abuse risk. *Families in Society*, *76*(7), 421–433.

Nair, P., Schuler, M. E., Black, M. M., Kettinger, L., & Harrington, D. (2003). Cumulative environmental risk in substance abusing women: Early intervention, parenting stress, child abuse potential and child development. *Child Abuse & Neglect*, *27*(9), 997–1017. https://doi-org.proxy.lib.wayne.edu/10.1016/S0145-2134(03)00169-8

Ondersma, S. J., Chaffin, M., Mullins, S. M., & LeBreton, J. M. (2005). The brief child abuse potential inventory: Development and validation. *Journal of Clinical Child and Adolescent Psychology*, *34*, 301–311. https://doi.org/10.1207/s15374424jccp3402_9

Paschall, K. W., Mastergeorge, A. M., & Ayoub, C. C. (2019). Associations between child physical abuse potential, observed maternal parenting, and young children's emotion regulation: Is participation in Early Head Start protective? *Infant Mental Health Journal*, *40*(2), 169–185. https://doi.org/10.1002/imhj.21767

Petrowski, N., Cappa, C., Pereira, A., Mason, H., & Daban, R. A. (2021). Violence against children during COVID-19: Assessing and understanding change in use of helplines. *Child Abuse & Neglect*, *116*(2), 169. https://doi.org/10.1016/j.chiabu.2020.104757

Prime, H., Wade, M., & Browne, D. T. (2020). Risk and resilience in family well-being during the COVID-19 pandemic. *American Psychologist*, *75*(5), 631–643. https://doi.org/10.1037/amp0000660

Rengasamy, E. R., Long, S. A., Rees, S. C., Davies, S., Hildebrandt, T., & Payne, E. (2022). Impact of COVID-19 lockdown: Domestic and child abuse in Bridgend. *Child Abuse & Neglect*, *130*(1), 169. https://doi.org/10.1016/j.chiabu.2021.105386

Rodriguez, C. M. (2010). Parent-child aggression: Association with child abuse potential and parenting styles. *Violence and Victims*, *25*(6), 728–741. https://doi.org/10.1891/0886-6708.25.6.728

Rodriguez, C. M., Lee, S. J., Ward, K. P., & Pu, D. F. (2021). The Perfect Storm: Hidden risk of child maltreatment during the Covid-19 pandemic. *Child Maltreatment*, *26*(2), 139–151. https://doi.org/10.1177/1077559520982066

Sameroff, A. J., SeiferBarocas, R., Zax, M., & Greenspan, S. (1987). Intelligence quotient scores of 4-year-old children: Social environmental risk factors. *Pediatrics*, *79*(3), 343–350.

Sim, A., Bowes, L., & Gardner, F. (2019). The promotive effects of social support for prenatal resilience in a refugee context: A crosssectional study with Syrian mothers in Lebanon. *Prevention Science*, *20*(5), 674–683. https://doi.org/10.1007/s11121-019-0983-0

Stoddard, J., & Kaufman, J. (2020). *Coronavirus Impact Scale*. Retrieved from https://www.phenxtoolkit.org/toolkit_content/PDF/CIS_Stoddard.pdfTaraban,L

Trentacosta, C. J., Hyde, L. W., Shaw, D. S., Dishion, T. J., Gardner, F., & Wilson, M. (2008). The relations among cumulative risk, parenting, and behavior problems during early childhood. *Journal of Child Psychology and Psychiatry*, *49*(11), 1211–1219.

Walker, C. A., & Davies, J. (2010). A critical review of the psychometric evidence base of the Child Abuse Potential Inventory. *Journal of Family Violence*, *25*, 215–227. https://doi.org/10.1007/s10896-009-9285-9

Wang, J., Mann, F., Lloyd-Evans, B., Ma, R., & Johnson, S. (2018). Associations between loneliness and perceived social support and outcomes of mental health problems: A systematic review. *BMC Psychiatry*, *18*(2), 156. https://doi.org/10.1186/s12888-018-1736-5

Wilson, S. R., Morgan, W. M., Hayes, J., Bylund, C., & Herman, A. (2004). Mothers' child abuse potential as a predictor of maternal and child behaviors during play-time interactions. *Communication Monographs*, *71*(4), 395–421. https://doi.org/10.1080/0363452042000307452