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Predictors of family violence in North Carolina following initial COVID-19 stay-at-home orders[☆]

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ABSTRACT

Background: Although there is evidence that family violence increased in the United States during the COVID-19 pandemic, few studies have characterized longitudinal trends in family violence across the course of initial stay-at-home orders.

Objective: The purpose of the present study is to investigate patterns and predictors of family violence, such as child maltreatment and harsh punishment, during the first eight weeks of the pandemic after initial stay-at-home orders in North Carolina.

Participants and setting: Participants included 120 families with children ages 4–11 (53% non-White, 49% female) and a primary caregiver (98% female) living in rural and suburban areas in North Carolina. Participants were recruited based on high risk of pre-pandemic family violence exposure.

Methods: Caregivers completed weekly surveys during the pandemic assessing family violence, caregiver employment status, and caregiver emotion reactivity. In addition, all caregivers completed pre-pandemic surveys on family violence.

Results: Mixed-effects models revealed that family violence was highest following initial stay-at-home orders and decreased linearly over time. Higher pre-pandemic child violence exposure and caregiver unemployment were associated with higher initial family violence. Higher caregiver emotion reactivity was associated with changes in family violence across time.

Conclusions: We observed high levels of family violence following stay-at-home orders, especially in families with higher baseline violence, higher caregiver emotion reactivity, and caregiver unemployment or underemployment. These associations suggest that vulnerable families may respond to the additional stressor of stay-at-home orders with increased violence and thus need additional support in moments of crisis.

[☆] All procedures were approved by the institutional review board at the University of North Carolina, Chapel Hill. The authors report no biomedical financial interests or potential conflicts of interest.

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1. Introduction

Family violence broadly defined to include physical, psychological, and sexual abuse in family relationships (Malley-Morrison & Hines, 2007), is associated with psychopathology and long-term changes in neural and psychosocial functioning in children (Cicchetti & Toth, 1995; Green et al., 2010; McLaughlin et al., 2010). The novel coronavirus (COVID-19) pandemic has raised widespread concern about children's exposure to family violence (Cappa & Jijon, 2021). Following initial lockdowns to address COVID-19, significant increases in domestic violence calls were observed (Leslie & Wilson, 2020; Nix & Richards, 2021; Xue et al., 2020). Although there was a decrease in child abuse calls (Department of Health and Human Services, 2018; Jonson-Reid et al., 2020), this may be due to a lack of visibility rather than an absence of maltreatment. For example, more severe child abuse cases were seen in emergency rooms between March and April in 2020 compared to 2019 (WUWSA, 2020). The assessment of patterns and predictors of family violence in moments of crisis is necessary to identify high-risk families, guide policymakers' decisions, and aid in prevention and intervention efforts to offset the impact of these events on psychological well-being.

The COVID-19 pandemic has been accompanied by several psychological and socioeconomic consequences that are well-established risk factors for family violence. First, abrupt shifts in routine have occurred for families due to parental job-loss or change, work-from-home initiatives, and closures in schools or daycares (Cluver et al., 2020; World Health Organization, 2020). These shifts not only incite stress within the family, which may lead to increased emotional reactivity and violence (Tolan et al., 2006), but also result in children spending more time at home with caregivers, the most common perpetrators of maltreatment (approximately 77% of cases; DHS, 2018). Second, efforts to control the spread of COVID-19 via stay-at-home orders and social distancing have decreased access to supportive individuals or systems — a protective factor against family violence. Third, the economic impact of the pandemic included job loss (unemployment rate of 12.9% in May 2020; Bureau of Labor Statistics) and decreased food security (e.g., lack of access to meals through school) and studies find increases in family violence when resources are limited (Tolan et al., 2003; Tolan et al., 2006).

Research on family violence suggests that certain families may be more vulnerable than others to these changes. The economic impact of the pandemic may be particularly detrimental for low-socioeconomic status families who rely on school meals and cannot afford increased childcare costs (Nicola et al., 2020). Additionally, child abuse reports indicate that maltreatment is highest in early childhood and decreases across development (Department of Health & Human Services, 2018). Thus, families with young children may be particularly vulnerable. Finally, child maltreatment is associated with other forms of family violence (Hamby et al., 2010), thus families with a history of violence before the pandemic may be particularly at risk. An individual-level predictor of family violence is caregiver emotion reactivity. Compared to non-maltreating parents, maltreating parents tend to be more emotionally reactive (Stith et al., 2009), meaning they experience stronger emotions in response to a wider array of stimuli (Nock et al., 2008). The ongoing stressors elicited by the COVID-19 pandemic provide the opportunity to observe the impact of stress on family violence across time and how this interacts with individual and family-level vulnerabilities.

In sum, the COVID-19 pandemic is likely to increase family violence through its impact on situational variables associated with

Table 1
Distribution of sample characteristics

	n	Min	Max	Mean	SD
Child age (months)	119	56	133	88.16	21.39
IQ	96	61	135	102.35	16.28
VEX-R score ^a	47	0	29	8.36	6.29
CTS-PC score ^b	49	0	153	26.47	30.15
Caregiver age	84	23	59	37.02	7.08
Number of people in child's home	67	2	10	4.30	1.81
	n	%		North Carolina census % ^e	
Child biological sex (female)	120	49.2		51.4	
Child ethnicity (Hispanic)	119	10.0		9.8	
Child race	119				
White		47.1		70.6	
African American		40.3		22.2	
Asian		4.2		3.2	
Multiracial/Other		8.4		4.0	
Caregiver education ^c (HS or less)	113	30.0		69.5	
Caregiver unemployment ^d (unemployed)	120	60.8		38.7	
Single caregiver	50	12.0			
Caregiver US citizenship	37	94.6			

^a Measure available in one sample only. Sum of exposure of child to violence perpetrated by adults at baseline before COVID-19 pandemic. The VEX-R has a minimum of 0 and a possible range up to 66. Frequently reported events in our sample include children witnessing and experiencing yelling, experiencing being slapped, witnessing an arrest, and witnessing and experiencing spanking.

^b Measure available in one sample only. Sum of the psychological aggression, physical assault, and neglect subscales at baseline before COVID-19 pandemic.

^c Caregiver education level of completing a high school education or less.

^d Caregiver was unemployed or underemployed (working fewer hours than usual) during April or May of the COVID-19 pandemic.

^e Information taken from North Carolina census (www.census.gov; files.nc.gov/nccommerce/).

family violence and these increases are more likely to occur in families already at risk for violence (i.e., families with a prior history of violence, caregivers who experience increased emotion reactivity). Currently, there is a lack of research on predictors of family violence in the COVID-19 pandemic (Xue et al., 2020). Past public health crises that similarly impacted daily functioning have been linked to spikes in spousal and child abuse that decrease over time (Davidson & McFarlane, 2006; Santos, 2020). It is unknown whether family violence follows a similar trajectory across a longer-term stress exposure such as the pandemic.

In the present study, we investigate how family violence changes weekly during stay-at-home orders in a sample of children recruited for low family socioeconomic status (SES) and high pre-pandemic risk of family violence. We hypothesize high initial levels of family violence, at the beginning of data collection, one week after the stay-at-home orders in North Carolina. Then, we examined the trajectory of family violence in those families across the next eight weeks of the pandemic, until one week before the initial lifting of stay-at-home orders. We hypothesized that higher reported family violence collected before the pandemic, caregiver underemployment or unemployment, and higher caregiver emotion reactivity would predict higher levels of family violence across time.

2. Method

2.1. Sample

Participants from two ongoing studies at the University of North Carolina at Chapel Hill completed at-home surveys during the COVID-19 pandemic (see Table 1 for demographic information and Supplement for survey questions). Participants lived within one hour driving distance of the university, a rural and suburban area. In the Sample 1, 64 children 6–11 years old were recruited targeting families with low SES (Machlin et al., 2019). In Sample 2, 94 children 4–8 years old were recruited targeting families at high risk of child maltreatment. Families were recruited from the community using flyers, listservs, community outreach, and through their participation in primary care at the hospital. The study preferentially recruited families who self-reported involvement with child protective services, were experiencing homelessness, reported child experiences of trauma, endorsed verbal or physical family conflict on the CTS (Straus, 1979), scored above the clinical cutoff (score ≥ 166) on the Child Abuse Potential Inventory (Milner, 1994), or had a caregiver with a high school diploma or less. Exclusion criteria included major medical conditions, neurological illness, pervasive developmental disorders, or prenatal substance exposure. The two samples did not significantly differ on child gender, child race, child IQ, caregiver education level, or child pre-pandemic violence exposure ($p > .21$). However, children in Sample 1 were significantly older than Sample 2 ($t = 14.65, p < .001$). From these samples 120 caregivers completed more than one weekly survey and were included in the present study (50 Sample 1; 70 Sample 2). Families included in the study based on survey completion did not differ from studies excluded due to lack of participation in pre-pandemic family violence or caregiver educational attainment.

2.2. Procedure

Demographic information, child maltreatment history, family violence, and child IQ were assessed prior to the pandemic during in-person visits for both studies (Machlin et al., 2019). Across both studies, pre-pandemic visits were completed between one month to 3 years (Mean = 16.76 months, SD = 15.40) prior to current data collection. Beginning on April 7th, one week after the statewide stay-at-home orders in North Carolina, caregivers were sent a survey via email to complete on their experiences during the pandemic assessing child violence exposure. From April 7 to May 30, 2020, families could complete up to six surveys assessing their weekly experience of the pandemic and child exposure to violence. Informed consent was obtained from all participants before survey completion through Qualtrics. Parents provided written consent and children provided verbal assent between the ages of 4 and 6 years old and written assent if 7 years old at baseline visit. All procedures were approved by the institutional review board at the University of North Carolina at Chapel Hill. If parents or children reported prior experiences of family violence at baseline, the study reported violence exposure to child protective services if not previously reported. Additionally, the study monitored weekly responses across the COVID-19 pandemic to ensure safety of respondents and made additional reports to child protective services as needed.

2.3. Measures

2.3.1. Demographic characteristics

At baseline child age, child gender, caregiver age, and caregiver gender were collected.

2.3.2. IQ

Child IQ was assessed through the Kaufman Brief Intelligence Test (KBIT-2) (Hildman et al., 1993), a brief IQ measure composed of verbal and nonverbal cognitive abilities. The reliability of child IQ score from the KBIT-2 is 0.93 in a normative sample (Bain & Jaspers, 2010).

2.3.3. Caregiver educational attainment

Caregivers reported on their highest educational level. Families where either caregiver had a high school diploma or less as their highest educational level (1); were compared to all other families (0).

2.3.4. Caregiver unemployment during pandemic

Caregivers reported weekly on their employment. Caregivers who were employed or paid but not currently working (1) were

compared to those who were unemployed or underemployed (employed for fewer hours than usual during the pandemic; 0).

2.3.5. Caregiver emotion reactivity

Caregivers reported on three items from the Emotion Reactivity Scale to assess emotion reactivity across the past week (Byrne et al., 2019; Nock et al., 2008). The items included one item from each subscale: “I tend to get very emotional easily,” “I experience emotions very strongly,” and “When I am angry/upset, it takes me much longer than most people to calm down”. Each item was measured on a 5-point Likert scale (0 = Not at all like me to 4 = Completely like me). We summed the three items at each timepoint (across 8 weeks of measurement, Cronbach’s $\alpha = 0.81\text{--}0.88$).

2.3.6. Pre-pandemic family violence

Exposure to violence, defined as experiencing or witnessing family violence, was assessed prior to the pandemic during each participant’s original study participation. Because the sample was drawn from two separate studies, measurement of family violence varied depending on which study participants were recruited from. Children from Sample 1 completed the Violence Exposure Scale for Children-Revised (VEX-R), a 21-item child interview used to assess children’s exposure to family and community violence (Fox & Leavitt, 1995). In Sample 2, child’s pre-pandemic exposure to violence was assessed using the Parent-Child Conflict Tactics Scale (CTS-PC), a widely used parent questionnaire that measures child maltreatment in the past year (Straus et al., 1998). Pre-pandemic exposure to violence scores were created by summing endorsements of violence perpetrated by a teenager or an adult on the VEX-R (Sample 1) or summing the psychological aggression, physical assault, and neglect subscales of the CTS-PC (Sample 2). To account for the discrepancy in measurement tools between the two samples, we constructed quintiles of the pre-pandemic violence exposure data from both samples and created a dichotomous variable where the highest 20% of pre-pandemic violence exposure is coded as 1 and all other quintiles are coded as 0.

2.3.7. Pandemic family violence

During the first eight weeks of the COVID-19 caregivers reported on family violence from a subset of six items from the Conflict Tactics Scale (CTS) (Straus, 1979) (see Supplement). Caregivers rated items on a 5-point Likert scale (0 = Never, 4 = Very Often) for how often a behavior had happened that week. A sum score was computed at each available timepoint (Cronbach’s $\alpha = 0.52^1\text{--}0.70$). Child harsh punishment and neglect across the pandemic was measured through a subset of seven items from the CTS-PC (Straus et al., 1998). Caregivers rated the frequency of each behavior in the past week on a 7-point scale from (0 = None to 7 = More than 20 times). The sum score was computed at each timepoint.

2.4. Statistical analysis

Data were analyzed in SPSS 27.0 (IBM Statistics, IBM Corp., Armonk, NY).

Mixed-effects regression models were used to test study hypotheses (Laird & Ware, 1982). Mixed models are well-suited for longitudinal data analysis, as they are robust to the data dependency that occurs with repeated assessments over time. In addition, this analytic approach is efficient in handling missing data by using all available data for a given participant to estimate group trends at each timepoint.

Means and standard deviations were calculated for study variables at each timepoint (Table S1). We ran two separate models each predicting a measure of violence during the COVID-19 pandemic (family violence, harsh punishment). Each model included time, computed as the difference in weeks between the first survey and each follow-up survey. All models included a dichotomous variable to control for the sample study participants were recruited from. Sample did not significantly predict intercept or slope in any model. For each outcome, we examined the following models (1) unconditional base growth models, (2) modeling the patterns of violence across time, (3) each individual predictor of violence in a model, and (4) an additional final model that included all significant predictors from the prior models. The overall fit of the unconditional base growth model, model across time, and final model was evaluated using the $-2 \log$ likelihood statistics ($-2LL$), with lower $-2LL$ values indicating a better fit of the model to the data (Hox, 2010). Comparison of nested models was tested using a chi-square distribution on the difference in $-2LL$ over the difference in degrees of freedom.

For each model, the intercept and slope of time was allowed to vary across families if significant in the model. Random intercepts and random slopes of all predictors were included if significant in the model ($p < .05$). Time-invariant predictors tested included child age, child gender, child IQ, caregiver age, caregiver gender, caregiver educational attainment, and pre-pandemic violence exposure (0 = low, 1 = high). Time-varying predictors included caregiver employment during the pandemic (0 = unemployed or underemployed, 1 = employed or paid) and weekly caregiver-reported emotion reactivity.²

¹ The low alpha at one timepoint (0.52) had the fewest observations compared to other timepoints (62% present).

² There were 12 sets of siblings across the two samples and thus, the data was reanalyzed retaining one sibling from each sibling pair at random. All results were the same and thus, all participants were retained.

3. Results

3.1. Demographic variables

Families entered the study with a significant history of violence exposure. At baseline on the CTS-PC ($N = 49$), caregivers reported that their child experienced more frequent physical assaults (Mean = 8.67, SD = 14.67) than the general population (Straus et al., 1998) with children experiencing eight physical assaults in the past year on average. At baseline on the VEX-R ($n = 47$), 61.7% of the children witnessed a violent event involving an adult and 76.6% experienced a violent event involving an adult (e.g., spanking, shoving, slapping, beating). Out of eight weeks of data collection, there were six weeks with substantial data (n ranging from 89 to 109) and two weeks with low data due to survey timing ($n = 10$ at week 2, $n = 17$ at week 7). Multilevel models utilized all data available across the eight weeks.

3.2. Family violence (CTS)

3.2.1. Null model and unconditional growth model

To predict the pattern of family violence across time, an unconditional growth multilevel model was first applied. The null model demonstrated significant variability in both the intercept ($B = 7.16, p < .001$) and the slope ($B = 0.09, p < .01$) of family violence across families in the sample. The inclusion of time as a predictor of family violence improved the model fit, as demonstrated by the significant decreases in $-2LL$ compared to the null model ($\Delta-2LL = 81.21, p < .05$). The model examining the trajectory of family violence across time during the COVID-19 pandemic yielded a significant mean intercept ($B = 9.49, p < .001$) and significant decreasing linear slope across week ($B = -0.30, p < .001$). The model-implied values suggest that family violence is highest at the beginning of data collection one week after the stay-at-home order and decreases linearly across April and May of the COVID-19 pandemic.

3.2.2. Predictors of family violence

Results of multilevel models examining the weekly trajectory of family violence found that, controlling for sample, child age, gender, IQ, and caregiver age, gender, or educational attainment did not significantly predict the intercept or slope of family violence across the pandemic. In contrast, high pre-pandemic violence exposure ($B = 1.38, p < .05$), caregiver unemployment or underemployment during the pandemic ($B = 0.52, p < .05$), and caregiver emotion reactivity during the pandemic ($B = 0.29, p < .001$) were significantly associated with higher family violence during initial data collection. Caregiver emotion reactivity was additionally associated with decreasing slope of family violence across the pandemic ($B = -0.04, p < .01$; Fig. 1).

3.2.3. Final model

The final model tested if high pre-pandemic violence exposure, caregiver unemployment, and caregiver emotion reactivity predicted the trajectory of family violence across the COVID-19 pandemic in the same model. The model with all significant predictors was a significant improvement in model fit measured by a significant reduction in $-2LL$ in comparison to the previous model examining time ($\Delta-2LL = 586.43, p < .05$). When controlling for all other significant predictors, caregiver emotion reactivity significantly predicted the intercept ($B = 0.28, p < .001$) and slope ($B = -0.04, p < .01$) of family violence. No other predictors remained significant (Table 2).

3.3. Harsh punishment (CTS-PC)

3.3.1. Null model and unconditional growth model

In the null model, there is significant variability in the intercept ($B = 2.73, p < .001$) but no significant variability in slope ($B = 0.04$,

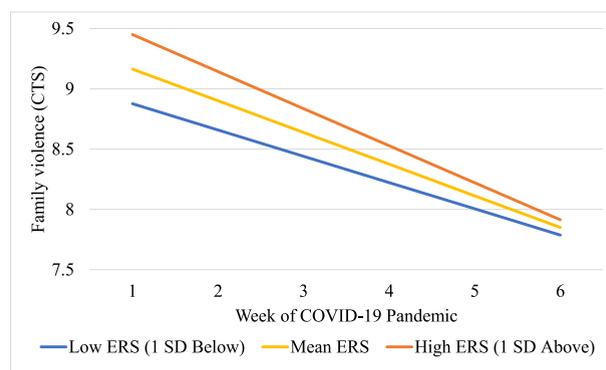


Fig. 1. Parent emotion reactivity predicts higher family violence across the COVID-19 pandemic.

Table 2
Final model predicting family violence across the COVID-19 pandemic

Predictor	Outcome: family violence					
	Model 1: intercept		Model 2: time fixed effect		Model 3: all significant predictors	
	γ	SE	γ	SE	γ	SE
Intercept	8.47***	0.20	9.49***	0.27	9.45***	0.58
Time			-0.30***	0.04	-0.27***	0.04
High pre-pandemic violence exposure					0.88	0.55
Caregiver unemployment					0.37	0.27
Sample					0.64	0.42
Caregiver emotion reactivity					0.28***	0.07
Time \times Caregiver emotion reactivity					-0.04**	0.01

Note.

* $p < .05$.

** $p < .01$.

*** $p < .001$.

no convergence due to redundancy) across families. Thus, the slope was fixed at a constant across families and predictors were only tested on associations with the intercept. The model examining harsh punishment across time improved the model fit, as demonstrated by the significant decreases in $-2LL$ compared to the null model ($\Delta-2LL = 13.75, p < .05$). In the model across time examining the trajectory of harsh punishment across the COVID-19 pandemic, there is a significant mean intercept ($B = 2.60, p < .001$) and decreasing linear slope across week ($B = -0.23, p < .001$). The model-implied values suggest that harsh punishment is highest at the beginning of data collection and decreases linearly through May 2020.

3.3.2. Predictors of harsh punishment

Results of multilevel models examining harsh punishment using the CTS-PC found that child age, gender, IQ, caregiver age, gender, educational attainment, unemployment, and high family pre-pandemic violence exposure did not significantly predict the intercept of harsh punishment across the COVID-19 pandemic. Controlling for sample, caregiver emotion reactivity during the pandemic was significantly associated with higher initial intercepts of family violence ($B = 0.11, p < .05$, Table 3). The final model including caregiver emotion reactivity and sample was a significant improvement in model fit in comparison to the previous model ($\Delta-2L = 44.71, p < .05$).

4. Discussion

There is an urgent need to investigate patterns of family functioning associated with the pandemic to inform policy and intervention both within the scope of the current pandemic response and as preparation for the future. There has been substantial concern about increases in family violence associated with the COVID-19 pandemic (Griffith, 2020). Specifically, identifying which families are at risk, during which period of stay-at-home policies is vital as emergency protocols for possible future pandemics are formed (Lonergan, 2020; Neher et al., 2020). In the current sample of families at high-risk for violence, family violence and harsh punishment were highest one week after the stay-at-home orders were implemented and decreased linearly across eight weeks through May 2020, one week prior to the initial lifting of stay-at-home orders. Results indicate that families at high risk for family violence may struggle to maintain a safe environment at the beginning of stay-at-home orders. These findings suggest that high-risk families may benefit from policies minimizing the number of transitions in and out of stay-at-home orders. Importantly, high-risk families uniformly reduced their violence across time. This indicates that if given time to establish routines and support, families can be safer in the context of a chronic stressor such as the COVID-19 pandemic. One implication of the current research is the importance of providing families with advanced notice to prepare for lockdowns in the future. In addition, it indicates there is a critical window when supporting families

Table 3
Final model predicting harsh punishment across the COVID-19 pandemic

Predictor	Outcome: harsh punishment					
	Model 1: intercept		Model 2: time fixed effect		Model 3: all significant predictors	
	γ	SE	γ	SE	γ	SE
Intercept	1.83***	0.19	2.58***	0.25	2.65***	0.29
Time			-0.23***	0.05	-0.20***	0.05
Sample					-0.45	0.36
Caregiver emotion reactivity					0.11*	0.05

Note.

* $p < .05$.

** $p < .01$.

*** $p < .001$.

experiencing a major disruption can shield children from violence exposure known to have negative life-long impacts (Hillis et al., 2017). Directly addressing the sources of stress (e.g., financial assistance, caregiving support) which were associated with violence may mitigate the impact of the pandemic on children. For example, providing stable childcare supports during a transition to lockdown may mitigate the impact of lockdown on increasing family violence (Ha et al., 2015).

Consistent with our predictions and one prior study (Lawson et al., 2020), results showed that pre-pandemic family violence and caregiver unemployment or underemployment were associated with higher initial levels of family violence. This suggests that families already at risk are more likely to cope with the initial stressors of lockdown using violence and that resources should be allocated to these families, particularly during the first few weeks of a transition to lockdown. The present study suggests that caregiver unemployment or underemployment is a potent life stressor that may impact caregiver's ability to prevent family violence as shown in prior research (Lawson et al., 2020; Rodriguez et al., 2021). Addressing caregiver unemployment or associated financial insecurity during this period may protect children.

Finally, our research indicated that caregiver emotion reactivity was associated with higher levels of family violence and harsh punishment and decreases in family violence across time. Families with high caregiver emotion reactivity showed higher levels of family violence across the period of lockdown in North Carolina during COVID-19 pandemic. We also observed that families where the primary caregiver had higher levels of emotion reactivity had larger decreases in family violence across time. This result may be driven by larger initial increases in family violence in families with high parent emotion reactivity after stay-at-home orders. However, overall, this finding demonstrates that despite, parents with high emotional reactivity can reduce children's exposure to violence with time and stability.

The COVID-19 pandemic may amplify caregiver emotion reactivity due to numerous stressors, increasing caregiver's needs for emotion regulation strategies. Thus, caregivers with well-developed coping strategies prior to the pandemic and the resources to use them may be able to better maintain a safe home environment (Wu & Xu, 2020). Findings linking emotion reactivity to family violence suggest that caregivers should view self-care and coping strategies for their own emotional well-being as being central to their children's well-being. Recommendations for parents during the pandemic to prevent family violence have been developed (Humphreys et al., 2020). Our research suggests that using parent coping strategies which reduce emotional volatility may reduce family violence during the pandemic.

The current research has key limitations, particularly in the generalizability of our findings across the United States. Our results are specific to families at high risk for family violence in North Carolina and the time period after stay-at-home orders. Thus, the generalizability of these findings to similar events is unknown. This research can be used in combination with other nationwide research to establish more generalized patterns of family violence (e.g., <https://medium.com/rapid-ec-project> for nationally representative data).

Another key limitation in the present study is the measurement available due to leveraging existing data. Due to utilizing participants from two different studies, timing of baseline variables varies from one month to three years before the pandemic. Given the unplanned nature of the study, we utilized the data at our disposal to measure overall family violence. However, we cannot definitively conclude that the increase in family violence in this sample was driven by stay-at-home orders.

Overall, these results suggest that in families at high risk for family violence, there were high levels of family violence and harsh punishment following stay-at-home orders in April and May in North Carolina followed by a steady decrease across the subsequent 8 weeks until stay at home orders lifted. Families with higher pre-pandemic levels of violence, higher caregiver emotion reactivity, and higher caregiver unemployment were at particular risk to experience family violence. Policies that may mitigate increases in family violence include the provision of additional resources to families when stay-at-home orders are issued, such as financial or caregiving support, and minimizing the number of transitions in and out of stay-at-home orders. These policy recommendations may reduce child exposure to family violence, which is known to impact child health and well-being through adulthood.

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Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.chiabu.2021.105376>.

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