

# Exploring American Parents' Lived Experiences During the COVID-19 Pandemic: Ramifications for Well-Being

Astrida S. Kaugars , PhD, Lindsay E. Holly, PhD, Mary Tait, BA, and Debra Oswald, PhD

Marquette University, Milwaukee, WI, USA

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## Abstract

**Objective** The objective of this study was to document the direct impact of the COVID-19 pandemic on parents and families in the United States. **Methods** Parents' experiences during the pandemic were examined using an online survey ( $N = 564$ ) collected during May and June 2020. **Results** Parents reported experiencing a high frequency of COVID-19-related events (e.g., job loss and health concerns) and impact on their lives. Parents' experiences with COVID-19, as well as self-reported perceived increase in home labor, experiences with assisting children with remote schooling, and work-life conflict were all significantly associated with higher levels of parental role overload. COVID-19-related events and impact, as well as parental role overload, significantly predicted parents' anxiety and depression, even after controlling for demographic factors. **Conclusions** The findings suggest the importance of providing support for parents and families through direct services and public policy changes.

**Key words:** anxiety; COVID-19 pandemic; depression; parents.

## Introduction

Parenting stress is the negative feelings that parents experience toward themselves and toward their child or children specific to their parenting role (Deater-Deckard, 1998). While all parents experience parenting stress, there is great variability in parenting stress and its impact on parents themselves and their children. In addition to concerns about money, work, and the economy, many parents report family responsibilities as a significant source of stress (American Psychological Association, 2010). Beginning in mid-March 2020, the COVID-19 pandemic significantly altered the lives of families in the United States (U.S.) and may have exacerbated parents' existing stressors and added new ones. Daily activities for families were disrupted due to day care and school closures, a rapid increase in job furloughs and unemployment, and stay-at-home orders. Uncertainty and fears about contracting COVID-19 mounted as families also

considered the financial repercussions of the pandemic. Pandemic-specific stressors such as these may have disrupted the coping resources and support systems that families typically relied on (Stark et al., 2020) and substantially impacted the emotional well-being of family members, particularly parents. Pandemic-related social disruption may have influenced caregiver well-being. Caregiver well-being may have impacted family subsystems (e.g., parent-child relationships, spousal relationships) and ultimately the whole family (Prime et al., 2020).

## COVID-19-Related Events

During the COVID-19 pandemic, parents encountered an unprecedented constellation of events that have typically not co-occurred on a large scale including COVID-19-related illness, job loss, and difficulties accessing health care and even challenges in obtaining living essentials (such as food). Furthermore, parents

became solely and constantly responsible for children's supervision and well-being as other adult caregivers were unable to help due to concerns about violating social distancing orders or high-risk status (e.g., grandparents). Assessment of COVID-19-related events within a trauma framework (Kazak et al., 2021) can aid in understanding the unique impact of the pandemic on parents and families. Using a newly-developed measure (i.e., COVID-19 Exposure and Family Impact Scales; CEFIS), Kazak et al. (2021) found that over 90% of caregivers in their sample had experienced closed schools/childcare centers and stay at home orders. More than half of the caregivers experienced disruptions in their children's education, had to cancel or miss important events, were unable to care for or visit family, and/or had a family member need to keep working outside the home (i.e., an essential personnel). Furthermore, on average caregivers reported a mildly negative impact on family relationships, emotional adjustment, and well-being. In a cross-sectional study of parents, experiencing more COVID-19-related stressors was associated with higher depressive and anxiety symptoms and greater parental perceived stress (Brown et al., 2020). There is increasing evidence of differences in COVID-19-related experiences and impacts based on gender (Alon et al., 2020; Kazak et al., 2021) and race/ethnicity (Fortuna et al., 2020).

## Family Management

### Perceived Change in Household Labor

Research is needed to understand the potential changes to parents' family management responsibilities during the COVID-19 pandemic, including perceived changes in household labor responsibilities. Prior to the pandemic women already assumed more household labor responsibilities than their partners did (Ciciolla & Luthar, 2019). An online and phone survey of American adults conducted during the COVID-19 pandemic revealed that 55% of women reported pandemic-related increases in domestic work and unpaid care for family members (Oxfam et al., 2020). Also, 57% of White respondents reported spending more time on domestic work and unpaid care; however, the rates were higher for Black respondents (71%), Hispanic or Latinx respondents (74%), and Asian respondents (79%; Oxfam, 2020). Relatedly, mothers experienced a significantly larger reduction in out-of-home work hours between February and April 2020 than fathers of children aged 1-5 and 6-12 years (Collins et al., 2021). Thus, the burden of household labor (including childcare and parent-assisted learning responsibilities), which may tax parents' physical and psychological resources, appears to be especially heightened for women and

Black, Indigenous, and People of Color (BIPOC) during the pandemic.

### Work-Life Conflict

Prior to the COVID-19 pandemic, female workers experienced higher work-to-family conflict and higher daily fatigue compared to male workers when they worked from home one or more times a week (Kim et al., 2020). During the first months of the COVID-19 pandemic as parents' work responsibilities interfered with family commitments or when family commitments interfered with work responsibilities, parents likely experienced work-life conflict (Byron, 2005) and subsequent negative impacts on well-being. Notably, parents may have worked remotely with children simultaneously in the home and in need of care. Mothers' and fathers' work-family conflict has been found to negatively impact family functioning and children's behavioral problems (Vahedi et al., 2019).

### Parents' Support of Children's Learning at Home

The added parent responsibility of supporting children's learning at home is a phenomenon unique to the COVID-19 pandemic. As noted above, many caregivers reported the closure of schools and childcare centers (Kazak et al., 2021). In an APA (2020, May) survey, 71% of parents reported that managing distance/online learning for their children was at least somewhat stressful. Parents reported challenges such as struggling to keep children focused on schoolwork, managing work responsibilities with children's schooling, and having unclear instructions from teachers and schools (PR Newswire, 2020). Little is known about parent-assisted learning in the U.S. and the impact on American parents of helping children with schoolwork.

### Parent Well-Being

#### Parenting Role Overload

The increased home labor, the work-life conflict, and the need to assist children with schooling may have resulted in an increase in parents' experiences of role overload. Voydanoff (2002) defined role overload as "exist[ing] when the total demands on time and energy associated with the prescribed activities of multiple roles are too great to perform the roles adequately or comfortably" (p. 147). This definition has been applied to measuring role overload related to parenting (Luthar & Ciciolla, 2015; Thiagarajan et al., 2006). Mothers' reports of greater parenting role overload have been associated with higher levels of anxiety, depression, and stress (Luthar & Ciciolla, 2015). In the current COVID-19 pandemic, parents with higher scores on a measure asking about parent difficulties during quarantine reported more stress in the parent-

child interaction and more individual stress (Spinelli et al., 2020).

### Anxiety

To date, research on the COVID-19 pandemic has found that in the general populations of adults, people are reporting clinically significant levels of anxiety (i.e., 25.5% to 47.0%; Czeisler et al., 2020; Elton-Marshall et al., 2020; Lee et al., 2020) and depression (i.e., 14.6% to 48.3%; Xiong et al., 2020). In general, these rates are higher than prevalence reported prior to the COVID-19 pandemic. In community samples of adults pre-pandemic, 23% reported clinically significant anxiety (Spitzer et al., 2006).

### Depression

A meta-analysis of pre-pandemic studies revealed that 24.6% of participants (i.e., from community and clinical samples) reported clinically significant depression (Levis et al., 2020). Parental anxiety is significantly associated with child depression and anxiety symptoms (e.g., Burstein et al., 2010), and both maternal (Goodman et al., 2011) and paternal (Sweeney & MacBeth, 2016) depression have been found to negatively impact children's emotional and behavioral functioning. Thus, examining factors that contribute to parental anxiety and depression during the COVID-19 pandemic is particularly important given the potential impact of parental well-being on child and family functioning. Findings may guide clinicians and policy-makers to better understand targets of intervention and policy priorities.

### Current Study

While data documenting the myriad of ways that the COVID-19 pandemic has affected the general population of American adults continues to emerge (e.g., Nikolaidis et al., 2021; Vahratian et al., 2021), it is necessary to examine the ways and extent to which parents, specifically, may have been directly and indirectly impacted in the early months of the COVID-19 pandemic. Parents, and especially mothers, reported more heightened COVID-19 related concerns than fathers and adults without children (Korajlija & Jokic-Begic, 2020). Parents' concerns may have been wide ranging resulting in psychological distress (Stark et al., 2020).

Building on extant research, the current study is among the first to investigate parents' lived experiences during the early months of COVID-19 pandemic with a simultaneous examination of multiple aspects of parents' lives (i.e., COVID-related impacts, household labor responsibilities, work-life conflict, and parent-assisted learning) and their well-being (i.e., parenting role overload, parent anxiety, and parent depression). We examined whether and how

demographic characteristics, COVID-19-related events and impacts, and family management responsibilities (i.e., perceived increase in household labor, work-life conflict, and supporting children's learning at home) predicted parental role overload. It was hypothesized that after accounting for relevant demographic characteristics, self-reported increases in time spent on household labor and COVID-19-related events and impacts would be positively associated with parenting role overload. Further, it was expected that among working parents, greater work-life conflict would be positively associated with greater parenting role overload. In addition, for those parents who were supporting their children's learning at home, parents' perceptions of their efficacy in supporting their children's learning at home were hypothesized to significantly predict parenting role overload.

Finally, we examined whether and how COVID-19-related events and impacts predicted parental depression and anxiety. We hypothesized that COVID-19-related events and impacts, as well as parenting role overload, would be positively associated with parent anxiety and depression symptoms after accounting for demographic characteristics.

## Methods

### Procedure

The study was approved by the institutional review board at the authors' institution. Participants were invited to complete the online survey via two data collection strategies. In May 2020, the study was advertised via the U.S. Mechanical Turk (MTurk), and participants who completed the survey through MTurk received payment (\$1.00). In June 2020, links to the study were disseminated via university announcements, social media advertisements, community listservs, a website describing research studies from around the world, and snowball sampling. The survey was administered through a university-based survey platform. An information sheet about the study was provided upon accessing the survey. Participants' responses were anonymous.

### Participants

There were  $N = 1,168$  respondents (MTurk sample:  $n = 903$ , Additional online sources:  $n = 265$ ) who indicated that they met the inclusion criteria (i.e., being 18 years of age or older, residing in a U.S. state or U.S. territory, and English language fluency) and continued to the survey questions. Data were cleaned to eliminate respondents who evidenced insufficient effort responding (Huang et al., 2011). From the resulting sample of  $n = 942$ ,  $n = 564$  respondents endorsed having a child age 18 years or younger currently living at home. Parents self-reported race/ethnicity: 64.8%

White, 16.6% African American, 8.2% Asian American, 4.3% Latinx, 3.4% Biracial, 2.5% Native American, and 0.2% self-described Other. There were slightly more mothers (56.2%) than fathers (43.8%) who participated, and 87.7% of participants lived with their partner/spouse. The mean age of participants was 37.03 (SD = 9.25) years, and parents had a median of 2 children. Most participants had a bachelor's degree or an advanced degree (87.9%). Participants' family annual income was as follows: 5.6% <\$25,000, 16.6% between \$25,000 and \$50,000, 45.7% between \$50,000 and \$100,000, and 32% >\$100,000. Participants resided in all U.S. states and territories.

## Measures

### Demographics

Participants reported on race/ethnicity, gender, age, education, family/household annual income, number of children, and cohabitation status. A dichotomous variable was created for race/ethnicity (i.e., White vs. African American, Asian American, Latinx, Biracial, Native American, and self-described Other).

### COVID-19-Related Events and Impact

To measure COVID-19-related events, we used the COVID-19 Exposure and Family Impact Survey (CEFIS; Kazak et al., 2021). This is a caregiver-report measure designed to assess the extent to which family members have been exposed to potentially traumatic events of the COVID-19 pandemic and the degree to which this exposure is perceived as challenging or beneficial. The Exposure scale consists of 25 COVID-19-related events and asks parents to indicate whether or not they have experienced each event (i.e., Yes/No).<sup>1</sup> The Impact scale used in the present study consists of nine items, which use a 4-point scale (i.e., 1 = *Made it a lot better* to 4 = *Made it a lot worse*); respondents could indicate that an item was Not Applicable, which was considered missing data. A question about ability to care for a child with an illness or condition was not included in the present study. Higher scores on each subscale denote more exposure and more (negative) impact, respectively. Internal consistencies for the present sample for the Exposure and Impact scales were acceptable (i.e.,  $\alpha = 0.88$  and  $0.91$ , respectively).

### Perceived Increase in Household Labor

Participants were asked: "Compared to your experiences before the COVID-19 pandemic, are you doing more/less work around the home than before?" Responses were on a 5-point Likert scale (i.e.,

1 = *Doing much less* to 5 = *Doing much more*) with higher numbers indicating perceived engagement in more home labor than before the pandemic.

### Work-Life Conflict

Netemeyer et al.'s (1996) Work-Family Conflict (5 items) and Family-Work Conflict (5 items) scales were administered to parents who indicated they were employed ( $n = 476$ ). Participants indicated their level of agreement with the items on a 7-point scale (1 = *Strongly disagree* to 7 = *Strongly agree*). Although original scale development indicated that items reflected two different factors, there was a high correlation,  $r = 0.83$ ,  $p < .001$ , between the two scales in the present study sample. An exploratory principal component analysis (PCA) with a varimax rotation was extracted with only one factor with an eigenvalue greater than one, and all items loaded highly on that single factor (loadings all  $> 0.79$ ;  $\alpha = 0.95$ ). Therefore, a single factor labeled Work-life Conflict was computed such that higher numbers indicate more conflict.

### Parents' Support of Children's Learning at Home

A subgroup of participants ( $n = 433$ ) who responded that their children were learning remotely during the COVID-19 pandemic completed 10 items assessing parents' perceptions of their efficacy in supporting their children's learning at home. Seven items from Coleman and Hildebrandt Karraker's (2000) Self-Efficacy for Parenting Tasks Index asked parents to indicate agreement with statements describing ways to facilitate their child's academic achievement. Three additional items unique to the COVID-19 pandemic were included: school providing things needed to learn at home, teachers/school providing adequate communication to support children's learning, and the extent to which children's education will be harmed by the pandemic. Respondents answered on a 6-point scale (1 = *Strongly disagree* to 6 = *Strongly agree*) with higher scores indicating higher self-efficacy in supporting children's learning at home. An exploratory PCA with a varimax rotation identified three factors with eigenvalues greater than one (loadings all  $> 0.40$ ): Parent-assisted Learning Efficacy (5 items; e.g., "I do an adequate job helping my child(ren) with school work";  $\alpha = 0.76$ ), Parent-assisted Learning Resources (2 items; e.g., "My child's (children's) school(s) have given me the things needed to learn at home";  $\alpha = 0.76$ ), and Parent-assisted Learning Stress (3 items; e.g., "Helping my child(ren) with school work is very frustrating";  $\alpha = 0.63$ ). Previous research has demonstrated that higher domain-specific self-efficacy for parenting tasks was associated with greater satisfaction with parenting (Coleman & Hildebrandt Karraker, 2000).

<sup>1</sup> In the present study when referring to this scale we used the researchers' original scale name to describe exposure to COVID-19-related events.

### Parenting Role Overload

Seven items (Luthar & Ciciolla, 2015) on 5-point Likert scale (i.e., 1 = *Strongly disagree* to 5 = *Strongly agree*) assessed the degree to which parents felt overloaded by their caregiving role. Higher numbers indicate higher Parenting Role Overload ( $\alpha = 0.90$ ). Greater parenting role overload has been found to be positively associated with parent anxiety, depression, stress, emptiness, and loneliness (Luthar & Ciciolla, 2015).

### Anxiety

The GAD-7 (Spitzer et al., 2006) consists of seven items that assess symptoms of generalized anxiety disorder. Participants indicate how frequently they have been bothered by each symptom in the last 2 weeks (i.e., 0 = *Not at all*, 1 = *Several days*, 2 = *More than half the days*, and 3 = *Nearly every day*). A score  $\geq 10$  is considered a clinical cut-off for identifying cases of generalized anxiety disorder; 49.7% of parents reported clinically significant symptoms of anxiety ( $\alpha = 0.92$ ). Spitzer et al. (2006) provide evidence of robust psychometric properties of the GAD-7.

### Depression

Depression symptoms were assessed using the PHQ-9 (Kroenke et al., 2001). Participants were asked how frequently they were bothered by nine symptoms over the last 2 weeks (i.e., 0 = *Not at all*, 1 = *Several days*, 2 = *More than half the days*, and 3 = *Nearly every day*). PHQ-9 scores  $\geq 10$  indicate moderate or more severe depression; 57.0% of parents reported clinically significant symptoms of depression ( $\alpha = 0.92$ ). Kroenke et al. (2001) provide evidence of the reliability and validity of the PHQ-9.

### Data Analysis Plan

Data were analyzed using SPSS version 26.0. All participants were invited to complete the questionnaires assessing COVID-19 exposure and impact, perceived increase in household labor, parenting role overload, anxiety, and depression questionnaires. For each of those measures, at most four participants did not complete one or more measures (i.e., PHQ-9 assessing depression). This represents 0.007% of participants.

We conducted a series of hierarchical regressions to examine whether and how individual and family characteristics predicted aspects of parent well-being. Specifically, Step 1 in each regression included relevant demographic characteristics, and Steps 2 and 3 in regressions included theoretically-relevant COVID-19-specific constructs. To predict Parenting Role Overload, family income, number of children in the home, parent age, parent education, gender, ethnicity, and the gender by ethnicity interaction were entered simultaneously in Step 1, and Perceived Increase in

Household Labor, COVID-19 Exposure, and COVID-19 Impact were included in Step 2. Similar regression analyses were conducted with subsamples of working parents and parents engaged in parent-assisted learning with their children, respectively. Regression models for these subsamples included a Step 3 in which either Work-life Conflict or Parent-assisted Learning variables (i.e., Efficacy, Resources, and Stress) were entered. For the prediction of parent Anxiety and Depression, the same demographic characteristics listed above were entered simultaneously in Step 1, and COVID-19 Exposure, COVID-19 Impact, and Parenting Role Overload were included in Step 2.

## Results

### Preliminary Analyses

Table I lists descriptive statistics for and correlations among the primary variables of interest. Overall, 99.5% of parents reported experiencing at least two types of COVID-19-related events with 51.8% experiencing 10 or more types of COVID-19-related events. The three most frequently endorsed COVID-19-related events were “We had a ‘stay at home’ order,” “Our schools/child care centers were closed,” and “We were unable to visit or care for a family member,” which was consistent with preliminary reports of the measure (Kazak et al., 2021).

The COVID-19 Exposures and COVID-19 Impact scores were both significantly positively associated with Work/Life Conflict, Parent-Assisted Learning Stress, Parenting Role Overload, Anxiety symptoms, and Depression symptoms among parents,  $r$ 's = 0.37 to 0.52,  $p < .001$ . Perceived Increases in Household Labor since COVID-19 was significantly positively correlated with Parenting Role Overload,  $r = 0.09$ ,  $p < .05$ .

### Examining the Effect of COVID-19 on Parent Well-Being

#### Impact on Parenting Role Overload

It was hypothesized that after accounting for relevant demographic characteristics, perceived increases in household labor and COVID-19-related events and impact would be positively associated with parenting role overload. In a regression with the total sample of parents (see Table II), demographic characteristics entered in Step 1 explained almost 11% of the variance in Parenting Role Overload,  $F(7, 529) = 9.26$ ,  $p < .001$ . In Step 2, COVID-19-related variables explained an additional 17.5% of the variance in Parenting Role Overload,  $F$  change (3, 526) = 42.91,  $p < .001$ . In the final model, family income and parent age emerged as significant predictors of *less* Parenting Role Overload, whereas parent education, Perceived Increases in Household Labor, COVID-19 Exposures, and

**Table 1. Descriptive Statistics and Correlations Among Primary Variables of Interest in Total Sample**

Variable	N	Range	M	SD	1	2	3	4	5	6	7	8	9
1. COVID-19 exposure	564	0-25	10.74	5.45	—								
2. COVID-19 impact	563	1-4	2.65	0.72	.36***	—							
3. Perceived increase in household labor since COVID-19	562	1-5	3.80	1.03	.05	-.08	—						
4. Work-life conflict	476	1-7	4.40	1.44	.46***	.34**	.02	—					
5. Parent-assisted learning efficacy	433	2-6	4.51	0.82	.05	-.12*	.04	.05	—				
6. Parent-assisted learning resources	433	1-6	4.47	1.12	.02	-.08	.03	.02	.45***	—			
7. Parent-assisted learning stress	433	1-6	3.77	1.16	.38***	.36**	.05	.62***	.09	-.02	—		
8. Parenting role overload	564	1-7	3.41	0.92	.37***	.28**	.09*	.67***	.05	.02	.48***	—	
9. Anxiety symptoms	563	0-21	8.35	5.89	.47***	.37**	.01	.60***	.08	-.01	.54***	.53***	—
10. Depression symptoms	560	0-26	10.21	7.40	.48***	.37**	-.001	.60***	.08	-.002	.58***	.56***	.86***

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

COVID-19 Impact emerged as significant predictors of *more* Parenting Role Overload.

Further, it was expected that among working parents, greater work-life conflict would be positively associated with greater parenting role overload. For working parents, regression results (see Table III) revealed that the demographic characteristics entered in Step 1 explained 10.9% of the variance in Parenting Role Overload,  $F(7, 448) = 7.85, p < .001$ . In Step 2, COVID-19-related variables explained an additional 17.6% of the variance in Parenting Role Overload after controlling for demographic characteristics,  $F$  change (3, 445) = 36.52,  $p < .001$ . In Step 3, Work-life Conflict explained an additional 21.5% of the variance in Parenting Role Overload, after controlling for demographic characteristics and COVID-19-related variables,  $F$  change (1, 444) = 190.69,  $p < .001$ . In the final model, family income emerged as a significant predictor of *less* Parenting Role Overload, whereas higher parent education, parent gender (i.e., mothers), COVID-19 Exposures, COVID-19 Impact, and Work-life Conflict emerged as significant predictors of *more* Parenting Role Overload.

Finally, for those parents supporting their children's learning at home, we hypothesized that aspects of parent-assisted learning would be unique, significant predictors of parenting role overload. For the parents assisting their children with learning, regression results (see Table IV) revealed that the demographic characteristics entered in Step 1 explained 8.1% of the variance in Parenting Role Overload,  $F(7, 405) = 5.13, p < .001$ . In Step 2, COVID-19-related variables explained an additional 17.9% of the variance in Parenting Role Overload after controlling for demographic characteristics,  $F$  change (3, 402) = 32.39,  $p < .001$ . In Step 3, Parent-assisted Learning Efficacy, Resources, and Stress explained an additional 8.7% of the variance in Parenting Role Overload after controlling for demographics and COVID-19-related variables,  $F$  change (3, 399) = 17.63,  $p < .001$ . In the final model, family income and parent age emerged as significant predictors of *less* Parenting Role Overload, whereas parent education, Perceived Increase in Household Labor since COVID-19, COVID-19 Exposures, COVID-19 Impact, Parent-assisted Learning Efficacy, and Parent-assisted Learning Stress emerged as significant predictors of *more* Parenting Role Overload. Notably, Parent-assisted Learning Resources did not predict Parenting Role Overload.

### Impact on Parent Mental Health

It was hypothesized that COVID-19-related events and impact, as well as parenting role overload, would be positively associated with parent anxiety and depression symptoms after accounting for demographic

**Table II.** Hierarchical Regression Results for Parenting Role Overload with Full Sample of Parents

Variable	<i>B</i>	<i>SE B</i>	$\beta$	<i>R</i> <sup>2</sup>	$\Delta R^2$
Step 1				0.11	0.11***
Constant	3.39	0.27			
Family income	-0.06***	0.01	-0.18		
Number of children in home	0.05	0.04	0.05		
Parent age	-0.02***	0.004	-0.21		
Parent education	0.25***	0.05	0.21		
Gender	0.03	0.13	0.01		
Ethnicity	-0.22	0.12	-0.11		
Gender × Ethnicity	0.09	0.16	0.05		
Step 2				0.28	0.18***
Constant	1.40	0.31			
Family income	-0.05***	0.01	-0.17		
Number of children in home	0.05	0.04	0.05		
Parent age	-0.02***	0.004	-0.16		
Parent education	0.23***	0.05	0.20		
Gender	0.18	0.12	0.10		
Ethnicity	-0.05	0.11	-0.02		
Gender × Ethnicity	-0.06	0.15	-0.03		
Perceived increase in household labor	0.09**	0.03	0.10		
COVID-19 exposures	0.05***	0.01	0.30		
COVID-19 impact	0.33***	0.05	0.26		

Note. *N* = 537.

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

characteristics.<sup>2</sup> Regression models predicting anxiety (see Table V) showed that demographic characteristics entered in Step 1 explained almost 12% of the variance,  $F(7, 529) = 10.03, p < .001$ . In Step 2, COVID-19-related variables and Parenting Role Overload explained an additional 34.9% of the variance in anxiety symptoms after controlling for demographic characteristics,  $F$  change (3, 526) = 114.54,  $p < .001$ . In the final model, family income and parent age were significant predictors of *less* anxiety, and COVID-19 Exposures, COVID-19 Impact, and Parenting Role Overload were significant predictors of *more* anxiety.

As shown in Table V, regression models predicting depression showed that demographic characteristics entered in Step 1 explained 15.6% of the variance,  $F(7, 526) = 13.92, p < .001$ . In Step 2, COVID-19-related variables and Parenting Role Overload explained an additional 36.3% of the variance after controlling for demographic characteristics,  $F(3, 523) = 131.95, p < .001$ . In the final model, family income, parent age, and parent gender (i.e., mothers) emerged as

significant predictors of *less* depression whereas COVID-19 Exposures, COVID-19 Impact, and Parenting Role Overload emerged as significant predictors of *more* depression.

## Discussion

The present study adds to the emerging literature showing that the COVID-19 pandemic is significantly and negatively affecting American parents. In the present sample, almost 100% of parents experienced *at least* two COVID-19-related events. Parents also reported that the pandemic has impacted various aspects of their functioning including their parenting, their family relationships, and their physical and emotional well-being. Parents in the present study had CEFIS Exposure and Impact scores comparable to a community sample described by Kazak et al., 2021. Although disparate measures (e.g., Coronavirus Health and Impact Survey; Nikolaidis et al., 2021; COVID-19 Adolescent Symptom and Psychological Experience Questionnaire-Parent; Clawson et al., 2021) make it difficult to compare parents' cumulative COVID-19-related experiences across studies, findings consistently suggest a high level of disruption in the lives of parents and families. In the present study, greater COVID-19 impacts were linked to higher levels of work-life conflict, greater stress when engaging in parent-assisted learning with their children, more feelings of parenting role overload, and elevated reports of anxiety and depression symptoms. These findings support the emerging literature, which shows

2 Four additional regressions were run including work-life conflict and experiences with parent-assisted learning in the models predicting parental anxiety and depression. Among working parents, work-life conflict emerged as a significant predictor for both anxiety and depression. All other significant predictors were the same as presented in Table V. Among parents who engaged in parent-assisted learning, parent-assisted learning efficacy and stress emerged as significant predictors for both anxiety and depression. All other significant predictors were the same as presented in Table V, except gender was not a significant predictor of depression in that model.

**Table III** Hierarchical Regression Results for Parenting Role Overload with Working Parents

Variable	<i>B</i>	<i>SE B</i>	$\beta$	<i>R</i> <sup>2</sup>	$\Delta R^2$
Step 1				0.11	0.11***
Constant	3.26	0.29			
Family income	−0.06***	0.02	−0.19		
Number of children in home	−0.004	0.05	−0.004		
Parent age	−0.02***	0.01	−0.20		
Parent education	0.29***	0.06	0.24		
Gender	0.04	0.14	0.02		
Ethnicity	−0.19	0.12	−0.10		
Gender × Ethnicity	0.04	0.17	0.02		
Step 2				0.29	0.18***
Constant	1.34	0.33			
Family income	−0.05***	0.01	−0.17		
Number of children in home	0.001	0.04	0.001		
Parent age	−0.02***	0.004	−0.15		
Parent education	0.26***	0.05	0.21		
Gender	0.21	0.13	0.12		
Ethnicity	−0.01	0.11	−0.004		
Gender × Ethnicity	−0.11	0.16	−0.06		
Perceived increase in household labor	0.07*	0.04	0.08		
COVID-19 exposures	0.05***	0.01	0.32		
COVID-19 impact	0.30***	0.05	0.24		
Step 3				0.50	0.22***
Constant	0.96	0.28			
Family income	−0.04***	0.01	−0.13		
Number of children in home	0.02	0.03	0.02		
Parent age	−0.01	0.004	−0.05		
Parent education	0.12**	0.05	0.10		
Gender	0.23*	0.11	0.12		
Ethnicity	0.02	0.09	0.01		
Gender × Ethnicity	−0.10	0.13	−0.05		
Perceived increase in household labor	0.05	0.03	0.05		
COVID-19 exposures	0.02**	0.01	0.12		
COVID-19 impact	0.09*	0.05	0.07		
Work–life conflict	0.36***	0.03	0.57		

Note. *N* = 455.

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

associations between COVID-19 and negative outcomes (Brown et al., 2020; Elton-Marshall et al., 2020; Spinelli et al., 2020).

Parents in the current sample reported feeling overloaded, anxious, and depressed. COVID-19-related events, COVID-19 impacts, and changes in family management responsibilities (i.e., perceived increases in household labor responsibilities) were associated with higher levels of parenting overload. This is consistent with other research finding associations between caregiver burden, anxiety, depression, stress, emptiness, loneliness, and parent-perceived child stress (Luthar & Ciciolla, 2015; Russell et al., 2020). Among parents who were responsible for supporting children's at-home learning, parents who reported more parent-assisted learning efficacy and stress related to helping their children with their schooling also felt more overloaded in the caregiving role, generally. This finding was consistent with hypotheses, and in previous research higher domain-specific self-efficacy for parenting tasks was associated with greater satisfaction with parenting (Coleman & Hildebrandt

Karraker, 2000). However, the amount of parent-assisted learning resources was not significantly linked to parenting role overload. Since the assessment of parent-assisted learning is different than traditional homeschooling experiences, which are typically based on parent preferences, more investigation of this construct in the context of the pandemic is necessary.

Among working parents, work-life conflict also emerged as an important factor related to higher levels of feeling overwhelmed and decreased ability to perform as parents. Being female predicted higher rates of parental role overload among working parents. Research conducted prior to the pandemic found that mothers who spent relatively more time at work experienced greater work-life conflict than mothers who spent relatively more time with their children (Lee et al., 2017). Other research studies (e.g., Johnston et al., 2020) have documented that the preexisting gender gap in housework and child care did not change during the COVID-19 pandemic, with greater disparities when only one spouse worked remotely (e.g., Dunatchik et al., 2021) Consequently, stimulus



**Table IV.** Hierarchical Regression Results for Parenting Role Overload with Parents Supporting Children's Learning at Home

Variable	B	SE B	$\beta$	R <sup>2</sup>	$\Delta R^2$
Step 1				0.08	0.08***
Constant	3.57	0.31			
Family income	-0.05***	0.02	-0.14		
Number of children in home	0.03	0.04	0.04		
Parent age	-0.02***	0.01	-0.19		
Parent education	0.19***	0.06	0.17		
Gender	0.04	0.15	0.02		
Ethnicity	-0.16	0.13	-0.09		
Gender $\times$ Ethnicity	-0.04	0.18	0.02		
Step 2				0.26	0.18***
Constant	1.31	0.37			
Family income	-0.05***	0.02	-0.15		
Number of children in home	0.05	0.04	0.06		
Parent age	-0.01**	0.004	-0.14		
Parent education	0.20***	0.05	0.18		
Gender	0.26	0.14	0.14		
Ethnicity	0.02	0.12	0.01		
Gender $\times$ Ethnicity	-0.21	0.12	-0.12		
Perceived increase in household labor	0.13***	0.04	0.15		
COVID-19 exposures	0.05***	0.01	0.29		
COVID-19 impact	0.32***	0.06	0.26		
Step 3				0.35	0.09***
Constant	0.56	0.42			
Family income	-0.04**	0.01	-0.11		
Number of children in home	0.07	0.04	0.08		
Parent age	-0.01**	0.004	-0.13		
Parent education	0.17***	0.05	0.15		
Gender	0.19	0.13	0.10		
Ethnicity	0.01	0.12	0.003		
Gender $\times$ Ethnicity	-0.13	0.16	-0.07		
Perceived increase in household labor	0.10**	0.04	0.12		
COVID-19 exposures	0.03**	0.01	0.18		
COVID-19 impact	0.20***	0.05	0.17		
Parent-assisted learning efficacy	0.11*	0.05	0.10		
Parent-assisted learning resources	-0.01	0.04	-0.02		
Parent-assisted learning stress	0.26***	0.04	0.33		

Note.  $N = 412$ .

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

checks for mothers, paid family leave, pay equity programs, affordable child care, and return-to-work retraining programs are among proposals to address families' needs.

Compared to community samples of adults in previous research, parents living in the current COVID-19 pandemic are reporting clinically significant anxiety and depression levels at least twice the rate previously reported; 23% reported clinically significant anxiety in 2006 (Spitzer et al., 2006) versus 49.7% in the current study, and 24.6% reported clinically significant depression between 2000 and 2018 (Levis et al., 2020) versus 57.0% in the current study. Notably, but perhaps not surprisingly, parental role overload, COVID-19-related events, and COVID-19 impacts are significantly contributing to both anxiety and depression symptoms among parents. Given the health- and economic-related disparities evidenced by the pandemic, there should be additional attention

examining variability in anxiety and depression for BIPOC parents and women.

### Limitations and Future Directions

Despite the many merits to an online survey approach (Chandler & Shapiro, 2016), it is possible that the general population is not accurately reflected in the participants. Specifically, the present study sample had higher educational backgrounds and salaries than the general U.S. population. Also, relatively few single parents participated in the present study, and the experiences of LGBTQ+ parents were not explored. Notably, work-life conflict may differ for single parents, those living in multigenerational households, or in couples of the same gender. Also, a small majority of the current sample identified as non-Hispanic White, which prevented the investigation of unique experiences by specific racial/ethnic groups. Future research should examine racial, ethnic, and cultural factors that may impact COVID-19

**Table V.** Hierarchical Regression Results for Anxiety and Depression Symptoms with Full Sample of Parents

Variable	Anxiety symptoms				Depression symptoms			
	B	SE B	$\beta$	R <sup>2</sup> $\Delta$ R <sup>2</sup>	B	SE B	$\beta$	R <sup>2</sup> $\Delta$ R <sup>2</sup>
Step 1				0.12 0.12***				0.16 0.16***
Constant	14.83	1.70			19.27	2.10		
Family income	-0.31***	0.09	-0.15		-0.46***	0.11	-0.17	
Number of children in home	-0.22	0.25	-0.04		-0.29	0.31	-0.04	
Parent age	-0.16***	0.03	-0.24		-0.22***	0.03	-0.27	
Parent education	0.63	0.32	0.08		0.98*	0.40	0.11	
Gender	-1.37	0.82	-0.12		-2.85**	1.01	-0.19	
Ethnicity	-1.74*	0.73	-0.14		-2.91***	0.90	-0.19	
Gender $\times$ Ethnicity	0.58	1.02	0.05		1.71	1.26	0.11	
Step 2				0.47 0.35***				0.52 0.36***
Constant	-2.64	1.63			-3.32	1.96		
Family income	-0.18*	0.07	-0.08		-0.29***	0.09	-0.11	
Number of children in home	-0.32	0.20	-0.05		-0.42	0.23	-0.06	
Parent age	-0.09***	0.02	-0.13		-0.12***	0.03	-0.15	
Parent education	0.02	0.26	0.002		0.18	0.31	0.02	
Gender	-0.44	0.65	-0.04		-1.78**	0.77	-0.12	
Ethnicity	-0.12	0.59	-0.01		-0.89	0.70	-0.06	
Gender $\times$ Ethnicity	-0.62	0.81	-0.05		0.24	0.97	0.02	
COVID-19 exposures	0.29***	0.04	0.27		0.34***	0.05	0.25	
COVID-19 impact	2.23***	0.27	0.28		2.81***	0.32	0.28	
Parenting role overload	2.05***	0.24	0.32		2.84***	0.29	0.35	

Note.  $N = 537$  for anxiety regressions;  $N = 534$  for depression regressions.

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

experiences. In addition to these potential sampling biases, the current study relied on parent self-report. While many of the constructs assessed in the current study are subjective, future research could include family-level data and should assess perspectives of spouses and children to avoid mono-reporter bias. Also, the current study was cross-sectional in nature precluding our ability to examine causation.

Finally, results from the present study document American parents' lived experiences during the first 3 months of the COVID-19 pandemic. The early stages of the pandemic presented a great deal of change and uncertainty, and parents' experiences during this time may be related to parent, child, and family outcomes over time. However, it is possible that difficulties experienced early in the pandemic may have resolved as families may have developed adaptive strategies for managing new household management responsibilities. Additional research is needed to investigate if and how parents and families are adapting to pandemic circumstances as well as to examine parents' experiences as the pandemic resolves (e.g., increasing availability of vaccines, lifting of community-wide physical distancing orders, and children returning to in-person schooling). Future studies should utilize epidemiological and public health data to explore the comprehensive impact of the COVID-19 pandemic on parents and families.

### Conclusions and Implications

Understanding the experiences of parents is important not only because interventions may be needed to

support parents' mental health, but also because parental well-being has well-documented implications for the well-being of individual family members (e.g., spouse, children) as well as family functioning overall (e.g., Prime et al., 2020). Moreover, it is expected that effects of the current pandemic will have long-lasting mental health consequences that will unfold over time (Mancini, 2020). Thus, findings from the current study may be used to inform the development of policies and programs designed to assist parents with the unique difficulties associated with pandemics and similar circumstances (e.g., natural disasters). By creating such programming and policies now, the negative effects on parental well-being seen in the early stages of the current COVID-19 pandemic may be prevented in future pandemics or general community crises (e.g., natural disasters or wars).

Overall, findings from the current study show that during the early months of the COVID-19 pandemic, parents experienced significant household and family management responsibilities (including perceived increases in household labor, assisting in children's schooling at home, and work-life conflict) as well as notable feelings of overwhelm in their parenting role and high levels of anxiety and depression. As such, parents need support to manage their distress, so that they in turn can care for their families during highly stressful pandemic situations. Supporting parents' psychological flexibility and compassion may enable parents to learn components of acceptance and commitment therapy (ACT) that may be particularly

helpful to promote parental self-care and positive parenting behaviors: mindfulness and acceptance, committed and valued action, and self-compassion. Community and government agencies can organize to increase resources to support families, assess families and groups at higher risk, and work to increase access to services during the ongoing pandemic. For example, Medicare coverage was expanded to include virtual mental health visits with clinical psychologists and licensed clinical social workers. The ability to engage in mental health services from home may be necessary for parents who have significant family and household management responsibilities during the pandemic and are also experiencing high levels of parenting role overload, depression, and anxiety. Finally, structural and policy changes are needed to support working parents. Specifically, it is necessary to support parental paid leave, childcare, and employment flexibility (Oxfam et al., 2020). Many parents are struggling and in need of support and services during this pandemic. The results of the study point to possible avenues for future research and clinical intervention.

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