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## Parenting During COVID-19: A Study of Parents’ Experiences Across Gender and Income Levels

**Objective:** This study describes parenting experiences at the beginning of the COVID-19 pandemic and examines differences across parent gender and family income level.

**Background:** The COVID-19 pandemic had unprecedented impacts on families. Many parents faced employment changes, including job loss, reduced pay, and working remotely, while simultaneously experiencing increased childcare responsibilities due to school and childcare closures. Research is needed to document the ongoing impact of these changes on parents and families.

**Method:** An online convenience sample of parents (N = 1,009) reported on their parenting experiences during the beginning of the COVID-19 pandemic (April 2020) in an online survey.

**Results:** Parents reported high levels of depression, anxiety, and parental burnout. Further, many parents reported increased negative emotions, such as anger and worry, while simultaneously feeling closer to their children and offering more comfort and soothing. Differences across gender and income levels are presented.

**Conclusion:** These results align with other emerging findings of increased impacts to mental health and well-being for parents and children and document the disproportionate effects on women and low-income families.

**Implications:** Implications include needing additional support (e.g., financial, caregiving) for parents and families as we continue to face the impacts and consequences of COVID-19.

The novel coronavirus (COVID-19) pandemic upended daily life, placing families in new and particularly stressful circumstances. Parents that remained employed were likely to be working from home while simultaneously juggling childcare or working at an essential job and attempting to coordinate childcare when most childcare centers and schools were closed. Parents of school-age children were likely to be assisting with schoolwork or providing their children’s full-time education through distance learning (Fisher et al., 2020). Moreover, parents faced concerns about the health and safety of the entire family, their own financial fitness and job security, and an uncertain future. In response to these new stressors, the COVID-19 pandemic may be associated with increased risk of negative outcomes for parents and children. Scholars and practitioners have expressed concerns about increased domestic violence or child abuse (Brown et al., 2020), and many families may be facing immediate and increased risk of

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homelessness (Rogers & Power, 2020). However, unforeseen positive consequences may also arise from the pandemic (Harkins, 2020). During safer-at-home orders, families were likely to be spending more time at home together, slowing the pace of their day-to-day activities, and engaging in more quality time with one another.

Family system theorists view the family as an organized collection of relationships whereby individuals and families are interconnected, mutually influenced, and embedded in a contextual system that has implications for behavior, health, and development of all family members (Cox & Paley, 1997). Numerous studies have documented the pervasive impact of stress on the family system, with parenting stress affecting parent-child interactions, and concurrently children's stress impacting parents' stress, sense of parenting competence, and overall well-being (Neece et al., 2012; Nelson, et al., 2009). Given this inherent interdependence described in family system theory, the current study uses this framework to examine the experiences of parents and their children during the beginning of the COVID-19 pandemic. We examine parents' mental health, emotions, behaviors, and childcare responsibilities, as well as perceptions of their children's stress, and compare these experiences across parent gender and family income. The focus on parents' experiences is a critical first step in understanding the impact of COVID-19 on the larger family dynamic, including potential spillover effects on children.

#### THE PSYCHOLOGICAL IMPACT OF SAFER-AT-HOME ORDERS

A recent review examining the impacts of previous quarantines and "safer-at-home" orders associated with infectious disease outbreaks (e.g., SARS, H1N1 influenza, Ebola) found negative psychological effects such as anger, frustration, and even posttraumatic stress symptoms, especially when the quarantine lasted longer than 10 days (Brooks et al., 2020). Moreover, quarantined parents, and mothers in particular, were significantly more likely to report posttraumatic stress symptoms compared with those who did not quarantine (Sprang & Silman, 2013). Emerging research on the COVID-19 pandemic's safer-at-home orders has shown similar impacts (e.g., Gassman-Pines et al., 2020; Patrick et al., 2020). Adults reported high levels of pandemic-related distress

(Keeter, 2020), with parents reporting higher levels than adults without children (American Psychological Association [APA], 2020). Parents reported experiencing increased stress since school closures began (Hiraoka & Tomoda, 2020), identifying managing distance or online learning and worries about the impact on their children's development as significant sources of stress (APA, 2020).

#### PARENTS' MENTAL HEALTH

It is well-established that parents' mental health has an impact on parenting behavior and child development. Both maternal and paternal depression have been associated with negative parenting behaviors (e.g., irritability, hostility, and disengaged parenting; Lovejoy et al., 2000; Wilson & Durbin, 2010), and parents' anxiety has been associated with controlling and intrusive parenting (Bögels & Brechman-Toussaint, 2006; Borelli et al., 2018). Mothers with anxiety and depression are also likely to experience greater stress in their parenting role (Cornish et al., 2006; Crugnola et al., 2016).

When parents are distressed for extended periods of time, they may experience parental burnout, a syndrome characterized by overwhelming exhaustion, loss of accomplishment in one's parenting role, and emotional distancing from one's children (Mikolajczak et al., 2018b; Roskam et al., 2017, 2018). Depending on the parents sampled, parental burnout occurs in 8% to 36% of parents (Lindström et al., 2011; Roskam et al., 2017). Parental burnout has detrimental consequences for both parents and children—it is associated with poorer mental and physical health in parents and higher rates of child abuse and neglect (Mikolajczak et al., 2018a; Roskam et al., 2018). Given that COVID-19 pandemic has influenced parents' responsibilities, parenting stress, and resources, it is likely that some parents have had and continue to experience symptoms of parental burnout.

#### PARENTS' EMOTIONS AND BEHAVIORS

It is important to attend to parents' emotions as they are closely linked to parenting behaviors and parent-child relationship quality. A large meta-analysis demonstrated that negative emotions were associated with harsher discipline and positive emotions were associated with

more supportive parenting (Rueger et al., 2011). Although little is currently known about how COVID-19 impacts parents' emotions, existing research suggests that mothers' emotions are complex and vary based on a variety of factors, including time spent with children and parents' own characteristics (Kerr et al., 2019, 2021). During stay-at-home orders at the beginning of the pandemic and continued shifts to virtual learning formats, many parents were and likely continue to spend more, or perhaps all, of their time with their children, and it is likely that this has had an impact on their emotions and parenting behaviors.

#### COVID-19 IMPACTS ON CHILDREN

As a result of the pandemic, children have experienced changes in their daily routines, activities, and social interactions. In addition, they have likely been affected by changes in their primary caregivers' daily routines (e.g., working from home) and the continued uncertainty regarding returning to previous activities (e.g., in-person schooling). Children's stress often manifests through changes in behaviors likely perceived to be challenging by parents (e.g., whining, hitting, sleep difficulties), contributing to parents' stress and parenting behaviors (Neece et al., 2012). Consequently, it is impractical to consider parents' emotions and experiences without considering those of their children. A widespread and long-lasting crisis like COVID-19 has likely affected the family system at multiple levels, influencing parent-child relationships and interactions.

#### DIFFERENCES ACROSS GENDER AND INCOME

Since the beginning of the pandemic, research and media have focused on how COVID-19 has differentially impacted women and men (Kantamneni, 2020). Due to societal expectations and gender norms, mothers often assume an unequal share of caregiving, childcare, and schooling responsibilities compared with fathers (Hochschild, 1989; Sayer et al., 2004) and thus may be at increased risk for negative outcomes during the pandemic. Mothers may have fulfilled and continue to fulfill the additional caregiving and education needs of the family while also balancing work-related tasks and their own mental and emotional health. This has been supported by emerging research suggesting that women

have provided more childcare than men during the COVID-19 pandemic even while continuing to work (Collins et al., 2020; Zamarro et al., 2020). Given more women than men have suffered job losses since the start of the pandemic, it is even more likely that they were providing more childcare than men (Collins et al., 2020; Zamarro et al., 2020).

Families with fewer financial resources may be especially vulnerable to COVID-19 impacts as a result of unstable, unsafe, or strained housing situations (Rogers & Power, 2020) and working low-wage and high-risk jobs without employer-provided health insurance or leave (Kantamneni, 2020). Previous research has shown that low-income families were more likely to have experienced job loss due to COVID-19, were less likely to work from home, and had less access to paid leave at the beginning of the pandemic (Annat & Gassman-Pines, 2020; Karpman et al., 2020). Further, low-income families struggled more to arrange childcare than higher income families and were more likely to stay home from work to care for children (Karpman et al., 2020). These additional pandemic-related struggles are likely to create more stress for low-income families, who were already facing greater material hardship and psychological distress before the pandemic started (Karpman et al., 2018; Sandstrom et al., 2019). Even at the beginning of the pandemic in the United States (March 2020), more than half of low-income families reported struggling to meet basic needs (Karpman et al., 2020) and were less likely to receive COVID-19 governmental supports (Annat & Gassman-Pines, 2020).

#### CURRENT STUDY

Although links between parents' experiences and family well-being are well established, the unprecedented COVID-19 public health crisis brings these relationships to the forefront. Families have and continue to face additional stress and pressures (e.g., finances, childcare, education), having the potential to exacerbate underlying parental mental health, especially for women and low-income families. Understanding parents' experiences at the start of the COVID-19 pandemic is critical to gaining a more complete picture of the impact of COVID-19 on families, which will aid in creating effective policies and interventions to support them during

the ongoing crisis and its cascading impacts, as well as for future disasters. The current study builds on what is already known about the impact of COVID-19 on parents (e.g., Brown et al., 2020; Gassman-Pines et al., 2020), which focuses mainly on mental health impacts, by including a comprehensive picture of parents' perceptions of their experiences including their parenting emotions and behaviors, as well as their mental health. We use two well-established measures of mental health that allow for comparison with other studies, both within and outside the context of COVID-19. In addition, we take a family systems approach by including parents' perceptions of children's stress and comparing differences across gender and income levels to illuminate how these experiences might vary based on one's role in the family system. Finally, we include a focus on positive experiences during the pandemic, which has been overlooked in most emerging research on this topic. With this in mind, the current study pursues the following research questions and hypotheses:

1. What was the prevalence of mental health symptoms, specifically depression and anxiety, and rates of parental burnout in parents at the beginning of COVID-19?

*Hypothesis 1:* On the basis of emerging research documenting disproportionate effects of the pandemic on women and low-income parents (e.g., Annat & Gassman-Pines, 2020), we predict that both women and low-income parents will report greater anxiety, depression, and parental burnout than their male and higher income counterparts.

2. What changes did parents perceive in their emotions and behaviors since the start of the pandemic?

*Hypothesis 2:* We expect that mothers and low-income parents will report more negative emotions, less positive emotions, and a greater likelihood that their emotions are interfering with their ability to parent, compared with fathers and higher-income parents.

3. What impact has COVID-19 had on families' caregiving responsibilities and childcare access?

*Hypothesis 3:* We expect that mothers will report doing a greater share of childcare responsibilities than fathers and will be less satisfied with the division of childcare between them and their partners.

4. To what extent were children exhibiting stress-related behaviors or symptoms?

*Hypothesis 4:* Low-income parents will report greater stress-related behaviors and symptoms in their children compared to higher-income parents.

## METHOD

As part of a large, online-survey (deemed exempt by the University of Wisconsin–Madison Institutional Review Board, #2020-0557), data presented were collected from parents of children under 13 years of age, inquiring about their experiences since the start of the pandemic.

### Participants

Parents' ages ranged from 21 to 64 years ( $M = 36.5$  years,  $SD = 6.0$  years). Most identified as women (88.8%), 10.8% men, 0.1% transgender, 0.2% gender nonconforming, and 0.1% identified as agender. For comparisons across gender, only participants who identified as men or women were included due to the low number of cases in the other groups. Most of the sample identified as White (81.9%), married (82.1%), with one or two children (75.1%;  $M = 2.1$ ,  $SD = 1.0$ ). The majority of parents were Wisconsin residents (80.1%), while the remaining 19.9% were from various U.S. states. Most parents (78.5%) reported an annual income of more than \$50,000 per year. Based on approximated household size, income, and receipt of Supplementary Nutrition Assistance Program (SNAP) or Supplementary Nutrition Program for Women, Infants, and Children (WIC) benefits, 20.8% of families lived at or below 200% of the federal poverty line.

Roughly one in three families (30.7%) used at least one form of public assistance, including SNAP (11.5%), WIC (6.9%), and Temporary Assistance to Needy Families (0.5%), Subsidized federal loans (5.3%), Pell Grants (2.5%), Medicare or Medicaid (15.6%), Social Security Income and Social Security Disability Income (3.8%), General assistance (1.5%), and Unemployment benefits (5.2%). Some parents reported receiving other public benefits or aid not listed (2.9%), such as Children's Health Insurance Program and Section 8 Housing Voucher Program (see Table 1).

Table 1. *Sample Characteristics*

Gender	Percentage
Women	88.8
Men	10.8
Other	0.4
Race	
White	81.9
Asian/Asian American	5.8
Black/African American	2.9
Hispanic/Spanish origin	2.0
Latinx	0.4
American Indian/Alaska Native	0.4
More than one race	5.5
Other	0.8
Relationship status	
Married or partnered	82.1
Dating	7.9
Single	5.6
Divorced	2.6
Widowed	0.5
Other	1.4
Education	
High school or less	4.8
Some college	11.8
Community college or trade school	8.2
Bachelor's degree	32.5
Graduate degree	42.2
Income	
Less than \$30 K	10.2
\$30 K to \$50 K	10.9
\$51 K to \$70 K	14.0
\$71 K to \$90 K	15.7
\$90 K to \$110 K	14.9
Over \$110 K	34.3
Federal poverty line	
More than 200% above	82.1
At 200% or below	17.9

Note. *N* = 1,009.

*Procedure*

Advertisements for “a study of parents’ experiences during COVID-19” were distributed through listservs and social networking sites (e.g., Facebook, university listserv for parents). Participants received a \$15 gift card for participation. Participants were presented an informed consent page that described the study. Once they passed the screening questions and provided consent, they were able to complete the survey, which took approximately 30 to 45 minutes to complete. Data collection occurred between April 29 and May 1, 2020.

Due to the potential for “bot” or spam participants in online surveys, the researchers conducted a rigorous verification process to validate responses. Each participant was emailed to verify their age and zip code, and then assessed for quality of data based on open-ended responses, length of time to complete the survey, zip code, and IP address. There were 1,588 complete survey responses, and 1,051 were determined to be completed by real participants. Another 40 responses were removed due to missing more than one attention check or completing the survey in less than 10 minutes. The final sample included 1,009 valid responses.

*Measures*

Due to the novelty and urgency of the COVID-19 pandemic and surrounding circumstances and lack of COVID-19–specific measures at the time of data collection, several measures were created or modified to meet the needs of this study and capture parents’ unique experiences of parenting during the pandemic.

*Parent Mental Health.*

Anxiety and depression symptoms. Parents’ symptoms of depression and anxiety were assessed using the Patient Health Questionnaire 8 Item (PHQ-8; Kroenke et al., 2009) and General Anxiety Scale 7 Item (GAD-7; Spitzer et al., 2006), respectively. Both the PHQ-8 and the GAD-7 are measures of mental health symptoms that are widely used in medical and psychological research and practice. The PHQ-8 assesses depression symptom severity based on eight questions and the GAD-7 assesses anxiety symptom severity based on seven questions, both utilizing a 0 (*not at all*) to 3 (*nearly every day*) point Likert scale. For each measure, scores on all questions are summed to create a total score, with scores falling within none/minimal (0–4), mild (5–9), moderate (10–14), moderately severe (15–19), and severe (20 or above). In the current study, Cronbach’s alphas for the PHQ-8 and GAD-7 were .88 and .92, respectively.

Parental burnout. Parental burnout was assessed using an adapted version of the validated Parental Burnout Assessment (PBA; Roskam et al., 2018). Due to space limitations, the measure was shortened from 23 to five items, in line with other recent adaptations of the PBA

(Aunola et al., 2020). The response scale was modified from frequency over the course of a year to agreement (0 = *strongly disagree* to 6 = *strongly agree*) to capture the presence of these feelings during the beginning of the pandemic, which had been ongoing for about a month at the time of data collection. The total score reflects the sum of the five items where higher scores are indicative of greater parental burnout. Cronbach's alpha reliability for the five-item scale was 0.84.

**Psychological impacts from COVID-19.** To assess the psychological impacts of COVID-19, a single item was used from the psychological impacts scale of the Coronavirus Impacts Questionnaire developed by Conway et al. (2020): "I have become depressed because of the Coronavirus [COVID-19]." The rating scale was modified from the original 7-point scale (*not true of me at all to very true of me*) to a 5-point scale (*strongly disagree to strongly agree*) to be consistent with other measures and reduce participant burden.

#### *Parents' Emotions and Behavior.*

**Emotions.** Participants indicated how often they experienced six emotions as a parent, compared with before the pandemic started (0 = *less than usual*, 1 = *the same as usual*, 2 = *more than usual*). The prompt "compared to before the pandemic started, please indicate how often you experience these emotions or feelings as a parent" was provided for the following items: "Worries or Anxiety," "Closeness to Children," "Gratitude," "Guilt," "Enjoyment or Satisfaction," and "Frustration or Anger."

**Concerns and emotions interfering with parenting.** Using items adapted from another COVID-19 parenting study (Lee & Ward, 2020), parents were asked to rate the extent to which seven current emotions and concerns interfered with their ability to parent since the start of the pandemic (0 = *never*, 1 = *rarely*, 2 = *sometimes*, 3 = *often*, 4 = *always*). Parents responded to the prompt "since the start of the COVID-19 pandemic, how often have these concerns interfered with your ability to parent." Individual items are listed in Table 2.

**Parenting behaviors.** To assess parenting behaviors, parents were asked to report how often they used seven parenting strategies and behaviors

compared with before the start of the pandemic (0 = *less than usual*, 1 = *the same as usual*, 2 = *more than usual*). Items included "Conflicts with children," "Praise or rewards," "Discipline," "Spanked or hit," "Ignoring or being distant," "Yelling at children," and "Comfort or soothe."

**Division of childcare.** For partnered/married parents, parents reported how childcare is divided between them and their partner. Responses ranged from "only me" and "mostly me" to "my partner does a lot more" and "my partner only." Participants also reported whether they were satisfied with their current division of childcare (1 = *very dissatisfied* to 5 = *very satisfied*).

**Child stress.** To measure child stress since the start of COVID-19, a modified version of the Parent-Report of Post-Traumatic Stress [PROPS] was used (Greenwald & Rubin, 1999). Due to survey length constraints, a shortened version of the PROPS was created by combining similar individual items (e.g., Anxious; Worries; Fearful) into a single item (e.g., feeling anxious, worried, or fearful). Parents were asked to report whether or not they had observed increases in 17 common stress-related behaviors in their children (e.g., mood swings, nightmares) since the start of the pandemic, responding either *yes* (increased since the start of COVID-19 = 1) or *no* (has not increased since the start of COVID-19 = 0) for each behavior. For parents with more than one child, parents were asked to report on the child with the most recent birthday. Total scores were created by adding all items, with a Cronbach's alpha of .76.

## RESULTS

Preliminary analyses demonstrated that all outcome variables were normally distributed with a skew and kurtosis less than  $\pm 2$ . Descriptive statistics were reported using percentages for categorical variables and means and standard deviations for continuous variables. For differences across income and gender, chi-square tests were reported for categorical outcomes and *t*-tests for continuous outcomes. Specifically, two-tailed Welch's *t*-tests (equal variances not assumed) were used due to unequal group sizes for both gender and income and to avoid assuming homogeneity of variance across

Table 2. Mean and Standard Deviations of Parents' Mental Health Symptoms and Items Indicating How Much Emotions or Concerns Interfered With Ability to Parent Across Income and Gender Groups

		All parents (N = 1,009)	Women (n = 896)	Men (n = 109)	t value	Above 200% FPL (n = 799)	Below 200% FPL (n = 210)	t value
Mental health symptoms								
Parental burnout	M	11.1	11.3	9.5	2.73**	11.2	10.6	1.04
	SD	6.6	6.6	6.4		6.4	7.2	
Anxiety symptoms	M	7.5	7.6	6.0	2.99**	7.1	8.8	3.45***
	SD	6.0	5.5	5.4		5.2	6.6	
Depression symptoms	M	7.4	7.5	6.8	1.32	7.1	8.9	3.71***
	SD	5.4	5.4	5.3		5.0	6.5	
Depressed because of COVID-19	M	2.9	2.9	2.7	1.48	2.8	3.2	3.49***
	SD	1.3	1.3	1.4		1.3	1.3	
How much emotions or concerns interfere with ability to parent								
Financial concerns	M	2.24	2.23	2.33	0.85	2.07	2.90	8.36***
	SD	1.19	1.19	1.14		1.08	1.33	
Work-related concerns	M	2.94	2.93	3.02	0.70	2.97	2.84	1.22
	SD	1.27	1.28	1.18		1.23	1.41	
Social distancing or isolation	M	2.77	2.80	2.56	1.99*	2.74	2.89	1.52
	SD	1.20	1.20	1.17		1.16	1.31	
Worries or anxiety	M	2.69	2.71	2.54	1.54	2.64	2.86	2.42*
	SD	1.05	1.05	1.07		1.01	1.17	
Sadness	M	2.47	2.49	2.33	1.45	2.42	2.66	2.69**
	SD	1.07	1.07	1.06		1.03	1.17	
Frustration or anger	M	2.71	2.73	2.54	1.66	2.69	2.76	0.75
	SD	1.06	1.05	1.11		1.02	1.19	
Loneliness	M	2.23	2.26	2.01	2.35*	2.16	2.51	3.74***
	SD	1.14	1.14	1.05		1.10	1.25	

Note. FPL = federal poverty line. \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

groups. This test is considered appropriate, even when results indicated unequal variances across groups (Delacre et al., 2017). Income groups were categorized as either at or below 200% of the federal poverty line ( $n = 210$ ) or above 200% of the federal poverty line ( $n = 799$ ), henceforth referred to as low- or high-income, respectively. This categorization is a commonly used metric of low-income households in research contexts (e.g., Hyde et al., 2020; Robinson et al., 2017).

*Research Question 1: Mental Health*

Of the 1,009 parents, 39.4% reported moderate to severe anxiety and/or depression symptoms. Specifically, 22.3% reported both anxiety and depression, 8.6% reported only depression symptoms, and 8.5% reported only anxiety symptoms. In addition, 41.5% of parents agreed (score of 4 or higher) with the statement, “I have become depressed because of COVID-19.”

Sixty-nine percent of parents reported at least one symptom of parental burnout. Fifty-four percent agreed that they “are so tired by their role as a parent that sleeping doesn’t seem like enough,” and half (51.0%) agreed that they are “completely run down by their role as a parent.” A third (36.5%) agreed they are “looking after their child on autopilot.”

*Differences across gender and income.* Compared with fathers, mothers reported significantly higher levels of anxiety symptoms,  $M_{diff} = 0.5$ , 95% confidence interval (CI) [0.6, 2.7],  $p = .003$ ,  $d = .30$ , and parental burnout,  $M_{diff} = 1.8$ , 95% CI [0.5, 3.0],  $p = .007$ ,  $d = .27$ , but there were no differences between mothers and fathers in depression symptoms or COVID-19 specific depression (see Table 2). Low-income parents reported more symptoms of anxiety,  $M_{diff} = -1.7$ , 95% CI [-2.6, -0.7],  $p = .001$ ,  $d = .31$ , depression,  $M_{diff} = -1.8$ ,

Table 3. Parenting Behaviors and Emotions

	Total %	Women	Men	$\chi^2$ value	Above 200% FPL	Below 200% FPL	$\chi^2$ value
% of parents who reported using each behavior more than before COVID-19							
Yelling	37.0%	38.2%	27.5%	4.73*	38.0%	32.9%	1.92
Conflicts with children	41.6%	42.3%	35.8%	1.70	42.3%	39.0%	0.73
Discipline	27.3%	27.6%	24.8%	0.38	25.3%	34.8%*	7.54**
Comfort or soothing	49.2%	50.2%	41.3%	3.07	51.0%	42.4%*	4.94*
Praise or rewards	38.4%	38.4%	39.4%	0.05	38.3%	38.6%	0.01
% of parents who reported experiencing each emotion more than before COVID-19							
Worries or anxiety	67.3%	68.5%	56.0%	6.96**	68.7%	61.9%*	3.50
Closeness to children	58.0%	58.1%	56.9%	0.06	59.9%	50.5%*	6.13*
Gratitude	54.1%	54.5%	50.5%	0.63	56.6%	44.8%*	9.34**
Guilt	42.7%	43.7%	33.9%	3.77	44.4%	36.2%	4.54*
Enjoyment or satisfaction	27.5%	28.2%	21.1%*	2.48	27.4%	27.6%	0.00
Frustration or anger	57.3%	58.0%	50.5%	2.28	59.8%	47.6%*	10.13**

Note. Chi-square tests were  $2 \times 2$  tables that indicated differences between the number of parents who responded *more than usual* and those who said either *less than usual* or *same as usual*. FPL = federal poverty line. \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

95% CI [-2.7, -0.8],  $p < .001$ ,  $d = .33$ , and COVID-19-specific depression,  $M_{\text{diff}} = -0.4$ , 95% CI [-0.6, -0.2],  $p = .001$ ,  $d = .27$ , compared with parents with higher income. There was no significant difference in parental burnout across income levels (see Table 2).

### Research Question 2: Emotional and Behavioral Changes

Parents reported changes in positive and negative emotions since the start of COVID-19. Of the negative emotions inquired about, the highest number of parents reported more worries or anxiety than usual, followed by more frustration or anger and more guilt. For positive emotions, most parents reported feeling more closeness to their children and more gratitude as a parent (see Table 3 and Figure 1). The least commonly endorsed item across all emotions was enjoyment or satisfaction, such that only 27.6% of parents reported feeling more enjoyment or satisfaction in their parenting role since COVID-19, and 21.6% reported feeling less than usual.

Parents' reports of behavioral changes since the start of the pandemic were mixed. Compared with before COVID-19, a greater percentage of parents reported that they were engaging in more, not less, conflict, yelling, and discipline. Similarly, a greater percentage reported they were engaging in more, not less, comfort and praise or rewards. Of note, parents infrequently reported engaging in less comfort and praise

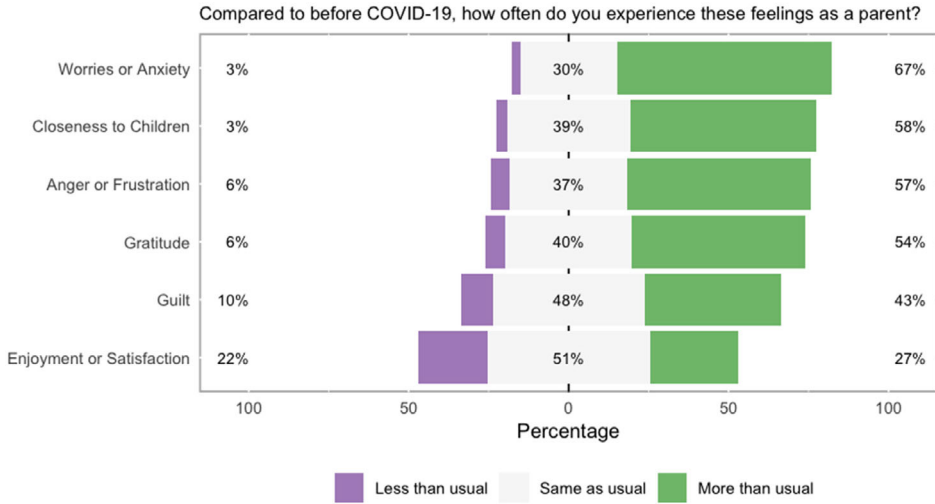
(1.0%) or rewards (1.8%) compared with before COVID-19. The majority (> 50%) of parents reported engaging in all behaviors with the same frequency now compared with before the pandemic (see Figure 2).

Parents also reported on whether current emotions or concerns interfered with their ability to parent. The majority of parents reported that emotions such as worries or anxiety (61.0%), and frustration or anger (60.0%) interfered with their ability to parent sometimes, often, or always. Although less commonly endorsed, some parents reported that sadness (48.6%) and loneliness (37.9%) interfered with their parenting at least sometimes. In terms of specific concerns, more than half of parents indicated that work or work-related concerns (65.6%) and social distancing or isolation (59.6%) interfered with their ability to parent sometimes to always.

*Differences across gender and income.* Regarding gender, a higher proportion of mothers compared with fathers reported yelling at their children more than usual,  $\chi^2(1) = 4.7$ ,  $p = .03$ . For emotions, women were significantly more likely than men to say that they were experiencing more worries or anxiety since the start of the pandemic,  $\chi^2(1) = 7.0$ ,  $p = .008$ . Mothers were more likely than fathers to say that loneliness interfered with their ability to parent,  $M_{\text{diff}} = 0.3$ , 95% CI [0.04, 0.5],  $p = .02$ ,  $d = .22$  (see Table 2).

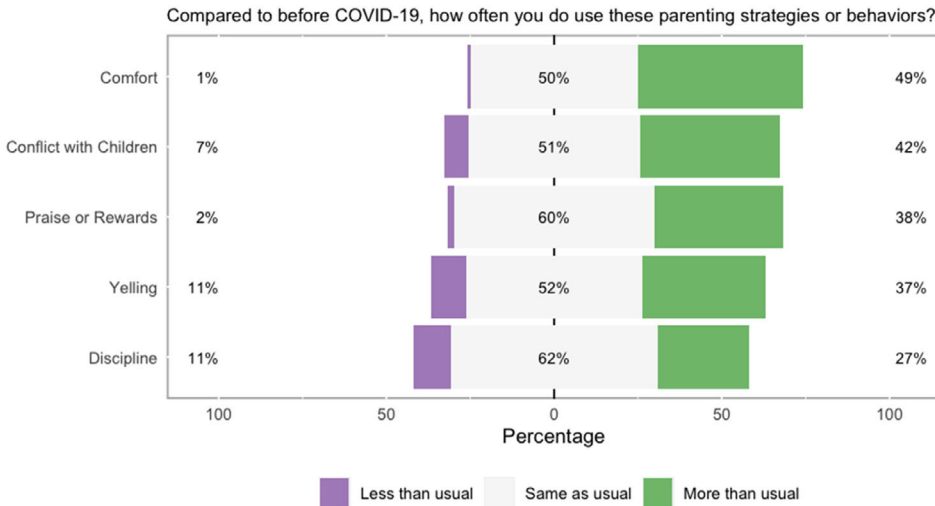


Figure 1. PERCENTAGE OF PARENTS EXPERIENCING PARENTING-RELATED EMOTIONS LESS THAN, THE SAME AS, AND MORE THAN USUAL COMPARED WITH BEFORE COVID-19.



Note. Figure displays percentage of parents who indicated each response option when asked to respond to the question “Compared to before COVID-19, how often do you experience these feelings as a parent?”

Figure 2. PERCENTAGE OF PARENTS REPORTING USING PARENTING BEHAVIORS AND STRATEGIES LESS THAN, THE SAME AS, AND MORE THAN USUAL COMPARED WITH BEFORE COVID-19.



Note. Figure displays percentage of parents that indicated each response option when asked to respond to the question “Compared to before COVID-19, how often do you use these parenting strategies or behaviors?”

Higher income parents more commonly said they felt closer to their children,  $\chi^2(1) = 6.1$ ,  $p = .013$ , and more gratitude,  $\chi^2(1) = 9.3$ ,  $p = .003$ , than usual compared with lower income parents. Similarly, more high-income

parents reported comforting their children more than usual compared with low-income parents,  $\chi^2(1) = 4.9$ ,  $p = .026$ . For negative emotions, more high-income parents reported feeling emotions such as guilt,  $\chi^2(1) = 4.5$ ,  $p = .033$ ,

and anger,  $\chi^2(1) = 10.1$ ,  $p = .001$ , more than usual compared with low-income parents. A higher proportion of parents with lower income said they engaged in more discipline than usual, compared with parents with higher income,  $\chi^2(1) = 7.5$ ,  $p = .006$ . Low-income parents were more likely to agree that emotions and concerns interfered with their ability to parent, including worries or anxiety,  $M_{diff} = -0.2$ , 95% CI [-0.4, -0.04],  $p = .02$ ,  $d = .20$ , financial concerns,  $M_{diff} = -0.8$ , 95% CI [-1.0, -0.6],  $p < .001$ ,  $d = .73$ , sadness,  $M_{diff} = -0.2$ , 95% CI [-0.4, -0.1],  $p = .007$ ,  $d = .22$ , and loneliness  $M_{diff} = 0.4$ , 95% CI [-0.5, -0.2],  $p < .001$ ,  $d = .31$  (see Table 2).

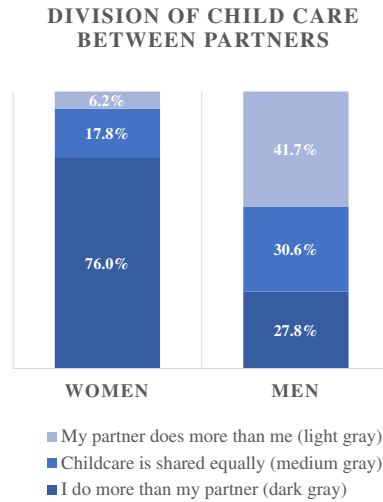
### Research Question 3: Caregiving Responsibilities and Satisfaction

Most parents (70.2%) reported they did more childcare than their partners since the start of the COVID-19 pandemic, and 47.3% said they were mostly or entirely responsible for childcare. Nineteen percent of parents reported childcare was evenly divided between themselves and their partner. Only 10% of participants reported that their partner was more responsible for childcare than themselves—41.7% of men and only 6.2% of women. Half (51.4%) of participants reported being at least somewhat satisfied with their current division of childcare, whereas 24.5% reported that they were somewhat to very dissatisfied.

*Differences across gender and income.* Stark differences across gender emerged for childcare. Compared with men, women reported more childcare responsibility than their partners,  $M_{diff} = -1.5$ , 95% CI [-1.8, -1.2],  $t(128.8) = 11.3$ ,  $p < .001$ ,  $d = 1.26$ . Specifically, 30.6% of men said that childcare was evenly divided between themselves and their partner compared with only 17.8% of women (see Figure 3). The majority of women (76.0%) reported that they did more childcare than their partners, compared with 27.8% of men. Women were also more dissatisfied with the current division of childcare than men,  $M_{diff} = -0.4$ , 95% CI [-0.7, -0.2],  $t(140.2) = -3.5$ ,  $p = .001$ ,  $d = 0.33$ .

Higher income parents reported that childcare was more evenly divided between themselves and their partner compared with lower income parents,  $M_{diff} = 0.3$ , 95% CI [0.08, 0.5],

Figure 3. DIFFERENCES IN DIVISION OF CHILDCARE BETWEEN WOMEN AND MEN.



*Note.* Figure displays percentage of parents who indicated each response option when asked to respond to the question “Childcare is provided by . . . .” Responses ranged from “only me” and “mostly me” to “my partner does a lot more” and “my partner only,” but here they are combined into three groups as indicated in the legend.

$t(299.0) = 2.8$ ,  $p = .006$ ,  $d = .23$ . However, there were no significant differences between high- and low-income parents in satisfaction with the division of childcare,  $t(231.3) = -0.6$ ,  $p = 0.58$ .

### Research Question 4: Child Stress

The majority of parents (90.8%) reported increases in at least one stress-related behavior for their children and 35.7% reported increases in five or more behaviors. Parents were most likely to report increases in their child’s mood swings or irritability (55.2%), followed by clinging to adults or comfort items (39.0%) and fighting with others or having a quick temper (38.7%). Feeling guilty (3.0%) and wetting the bed (3.5%) were the least reported.

*Differences across gender and income.* Low-income parents reported more increases in stress related behaviors for their children than high-income parents,  $M_{diff} = 0.6$ , 95% CI [-1.1, -0.5],  $t(288.5) = -2.1$ ,  $p = .03$ ,  $d = .19$ . No differences emerged based on parent gender,  $t(135.9) = 1.1$ ,  $p = .26$ .

## DISCUSSION

The current study detailed parents' experiences at the beginning of the COVID-19 pandemic in the U.S. and differences across income and gender. Parents reported high levels of anxiety and depression symptoms, and a majority reported at least one symptom of parental burnout. In addition, many parents reported experiencing depression symptoms as a result of COVID-19. Parents reported increased negative emotions in their parenting role, such as worries or anxiety, and anger or frustration, and for many, these emotions interfered with their ability to parent. There was some evidence of increased positive emotions in parenting as well, including feelings of closeness to children and gratitude. Although the majority of parents reported no changes in parenting behaviors, some reported increased conflict, yelling, and discipline as well as increased comfort and praise. When asked about their children, almost all parents reported increases in at least one common stress behavior, such as clinging or mood swings. Notably, more than a third of parents reported increases in five or more stress behaviors for their children.

In addition to the descriptive findings already described, several differences emerged across gender and income. Compared with fathers, mothers reported more anxiety and parental burnout symptoms and greater childcare responsibilities, and they were more likely to report increases in yelling, worries, and enjoyment as a parent. They were also more likely to say that social distancing and isolation interfered with their ability to parent. Low-income parents reported more anxiety and depression symptoms, child stress behaviors, and emotions interfering with parenting compared with high-income families, whereas high-income parents reported more increases in positive and negative parenting emotions compared to lower-income parents.

These parental mental health findings are consistent with emerging research on the impacts of COVID-19. At least one study has found similar rates of depression and anxiety symptoms in mothers and fathers (Russell et al., 2020), and several studies have reported high levels of psychological distress, depression, and anxiety among adults more generally (Keeter, 2020; U.S. Census Bureau, 2020). The depression and anxiety symptoms observed in this study, along with other emerging research, are higher than

what was typically reported in the U.S. population before the COVID-19 pandemic (Kessler et al., 2005; Pratt & Brody, 2014). This study extends this existing work by focusing specifically on parents and taking a more detailed approach in describing their experiences during COVID-19. Not only are parents suffering from anxiety and depression symptoms, like many adults right now, they are also feeling burned out in their parental role. This supports what many had speculated at the start of the pandemic (Gruber et al., 2020; Kantamneni, 2020; Prime et al., 2020): This crisis is taking a toll on parents. It is clear that parents are struggling and will continue to do so until this crisis begins to resolve, that is, children return to school and family and community support is back in place—and perhaps even longer, given the likelihood of long-term consequences for child development, mental health, and economic opportunities.

Parents reported changes in their emotions and indicated that negative emotions were interfering with their ability to parent. In previous research, parents' negative emotions were associated with harsher discipline (Rueger et al., 2011), but despite the increases in negative emotions in this sample, most parents did not report increased discipline or yelling. The majority of parents did, however, report that negative emotions like frustration and worry interfered with their ability to parent. It may be that the changes in parenting behavior were not captured by the specific items included (e.g., yelling, discipline). Taken together with the findings on parental mental health, these findings provide additional evidence for links between parents' mental health, emotions, and behavior that, in line with a family systems approach (Cox & Paley, 1997), could have subsequent implications for child well-being and parent-child interactions, especially throughout the COVID-19 pandemic (Russell et al., 2020).

Indeed, parents reported observing increased stress in their children since the start of the pandemic. Recent work highlighting the necessity of peer relationships for child development posits that the social distancing measures used to slow the spread of COVID-19 could have detrimental impacts on children's brain and behavioral development (Orben et al., 2020). Further, the disruption to daily routines and schedules that occurred as a result of school and childcare closures is likely to have affected children's

mental health (Gruber et al., 2020). It also may be that children's stress has increased as a result of parents' stress and uncertainty (Russell et al., 2020). Research on other disasters suggests that parental distress is an important predictor of children's responses (Kerns et al., 2014; Masten & Narayan, 2012). Given the multitude of changes experienced by families during COVID-19, children's stress has presumably been influenced in multiple ways, and these findings underscore the importance of approaching this research and potential interventions from a family systems perspective.

Although the data highlight parents' negative experiences during COVID-19, parents also reported some positive experiences that should not be overlooked. For example, the majority of parents reported feeling closer to their children than before the pandemic. This is important, given that parent-child relationship quality may buffer the effects of stress and negative experiences on both parents and children (Masten & Narayan, 2012). Indeed, evidence suggests that children exhibit better outcomes after traumatic experiences when parents themselves experience decreased distress (Kerns et al., 2014). Further, many parents in the current study reported increased experiences of gratitude specific to parenting. Although highly speculative, it is possible parents feel grateful for their family's health or the extra time together. During a time of intense uncertainty, fear, and stress, it seems that many families were able to experience some benefits. These results suggest that resilience processes within the family system may be a critical area of inquiry as research around COVID-19 moves forward (Prime et al., 2020).

#### *Differences Across Gender and Income*

Since the beginning of the pandemic, there has been discussion and theorizing around how the pandemic might differentially affect women (Collins et al., 2020; Kantamneni, 2020), and this was evident in the data. Women reported more symptoms of anxiety and parental burnout as well as greater worries or anxiety specific to parenting. In general, more women tend to have anxiety disorders than men (McLean et al., 2011), but there are not established gender differences in rates of parental burnout (Roskam et al., 2017; Roskam & Mikolajczak, 2020). One possible reason for this may be that mothers are taking on more family responsibilities,

such as childcare and virtual learning. This is supported by the data suggesting that women are assuming a greater share of the childcare and are less satisfied with the division of childcare than men; however, other emerging research suggests that fathers increased their participation in household and childcare tasks during the pandemic (Shafer et al., 2020). Recent research has demonstrated that women's work hours have been reduced significantly more than men during the pandemic, especially for those with young children (Collins et al., 2020). This is unsurprising, given that before the pandemic women already assumed a greater share of childcare than men, even among two working parents, and women struggle more with work-family balance guilt than men (Borelli et al., 2017; Sayer et al., 2004). It is likely that these preexisting challenges were exacerbated by the pandemic as the lines between work and childcare have blurred. It is critical that policy attend to how the pandemic is affecting mothers and create programs that help support workplace flexibility and balance of childcare responsibilities between men and women.

The increased impact of COVID-19 on low-income families has been well-documented. Existing research shows that since the start of the COVID-19 pandemic, low-income families have been more likely to experience financial hardship (e.g., unemployment, loss or reduction in pay) and have inadequate or reduced access to food and other resources (Karpman et al., 2020; Wolfson & Leung, 2020). Additionally, low-income families often have limited access to stable Internet and devices to access the Internet (Goldschmidt, 2020; Katz et al., 2017), potentially complicating virtual learning and working remotely. Building on existing research, these results suggest that low-income parents are struggling more than higher income parents. Parents at or below 200% of the federal poverty line reported they are reaping less of the emotional benefits of the pandemic that were found in higher income parents—less gratitude and closeness to children—but reported more mental health symptoms. Further, low-income parents were more likely to report that their emotions, such as sadness, loneliness, and worries were interfering with their ability to parent. Children from low-income families also exhibited increases in more stress behaviors than those from high-income families. Consistent with family systems theory, this suggests that

the disproportionate effect of the pandemic on low-income families may extend to children. Parents of families that were already struggling financially are now struggling more and have less access to community resources, such as food pantries and school-based mental health resources (Fisher et al., 2020). These results suggest that financial resources may be one avenue through which policy can support families' mental health and emotional well-being during the ongoing COVID-19 pandemic.

### *Limitations*

This study makes important contributions to initial research on the COVID-19 pandemic and parenting, but it is not without limitations. Most important, this survey was distributed across social media and email channels. Although this convenience sampling method allowed for expedient data collection, it is a nonprobability method, which limits the generalizability of findings. The sample represented in the survey contains an overrepresentation of those who are White (82% in this sample vs. 72% of the American population), women (89%), and those with higher incomes (65% of the sample earns more than \$70,000/year compared with U.S. median family income of \$63,1796), although it is more representative of the Wisconsin population (81% White) from which 80% of the sample was comprised. Given that the COVID-19 pandemic is having disproportionate impacts on people of color (Kantamneni, 2020), it is likely that these data do not reflect the true experiences of those families. Second, these data are cross-sectional, and although participants were asked to reflect on their experiences since the start of the pandemic, those views are likely skewed and do not reflect true longitudinal change. For example, several questions were retrospective in nature (e.g., how has X changed since the pandemic started?), which may have been difficult for parents to accurately reflect on and report. Additionally, several items were captured using a single item, which may limit the reliability of these data. Finally, child stress behaviors were captured via parent report, and it is likely that parents' perceptions of children's stress differed from children's actual experiences. These data are best seen as a snapshot of parents' experiences, as they perceived them, in the beginning months of the pandemic in the United States.

### *Future Directions*

These findings lay the groundwork for future research and point to a handful of important future directions for family researchers. First, in addition to understanding the prevalence of mental health, emotional, and behavioral phenomenon in parents during the pandemic, it is important to understand the relationships and interactions between these domains. From a family systems perspective (Cox & Paley, 1997), it is likely that the COVID-19 pandemic will not only impact parents and children individually, but the individual experiences of parents and children will influence each other through bidirectional processes (Masten & Narayan, 2012). For example, if children experience increased stress as a result of the pandemic, they may need more parental support. However, parents may perceive their children's stress behaviors (e.g., whining, hitting) as challenging and may simultaneously be dealing with their own emotional and psychological distress making them less equipped to support their children during this difficult time. The findings in this study hint at these underlying processes, but more research is needed to further disentangle these relationships in the context of a pandemic.

### *Conclusion*

The goal of this study was to provide a detailed snapshot of parents' experiences at the start of the COVID-19 pandemic in the United States. Findings suggest the pandemic is negatively affecting parents' mental health and emotions and children's stress, with a disproportionate impact on mothers and low-income families. Although this study offers a preliminary understanding of the ways in which the pandemic is affecting families, a more detailed investigation of parents' mental health, emotions, and behaviors and children's distress during the pandemic is vital to guide future policy that supports families during these unprecedented times.

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