CHRONIC **STRESS**

Effects of the COVID-19 Pandemic on Parental Burnout and Parenting Practices: Analyses Using a Retrospective Pretest

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Abstract

Background: Many of the conditions of the COVID-19 pandemic were consistent with factors shown to be predictive of parental stress and burnout. The purpose of the current study was to use a retrospective pretest method to gain an understanding of the effects of the COVID-19 pandemic on levels of parental burnout and on parenting practices.

Method: A brief survey was conducted using a retrospective pretest method to examine parental burnout (The Parental Burnout Assessment, Roskam et al, 2018) and parenting practices (The Alabama Parenting Questionnaire, Frick, 1991). The survey asked parent participants to answer questions about their experiences before and during the pandemic.

Results: Findings indicated that the pandemic had a significant impact on parents, increasing overall levels of parental burnout and impacting parenting practices by reducing use of positive parenting strategies and increasing use of inconsistent discipline and corporal punishment. These changes in parenting practices were even more pronounced for parents whose levels of parental burnout moved from "normal" levels before the pandemic to clinical levels during the pandemic.

Conclusion: The findings of the current study suggest that the COVID-19 pandemic has had a negative impact on levels of parental burnout and parenting practices. Although additional research is needed, the results suggest that there is a need for clinicians to understand the effects that the pandemic may have had on parents and families with an understanding that families may be at ongoing risk despite a relaxation of COVID-19 restrictions.

Keywords

parenting, burnout, COVID-19, pandemic, retrospective pretest

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The novel coronavirus (COVID-19) emerged in the United States in early 2020 and quickly spread across the country. As of June 4, 2022, a staggering 84,565,697 cases and 1,003,803 deaths have been attributed to the virus, and almost all individuals have experienced some form of restrictions or mandates as government agencies sought to slow the spread and limit the likelihood of a surge on our health infrastructure. In the early days of the pandemic, it is estimated that over 96% of Americans had experienced orders to shelter in place, and as a result the majority of the population experienced significant changes in their daily activities. Many Americas lost their jobs while others had to transition to working remotely. Childcare centers and schools closed, and parents took on full-time childcare responsibilities and supported their children with virtual or homeschool learning.

Parents lost the in-person support of extended family and friends, and had less time for leisure activities, if opportunities for their preferred leisure activities existed at all.

Although the number of daily cases and the risk of severe illness have been reduced through the introduction of vaccines, and many restrictions and mandates have come to an end, many families continue to feel the effects of the

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pandemic on their work, school, and home lives,³ and these effects have had an impact on the mental health and wellbeing of parents. Research indicates that parents have experienced high levels of stress during the pandemic. A nation-wide poll conducted by the American Psychological Association⁴ indicates that while stress levels have increased for all Americans during the pandemic, stress levels for parents have been particularly high. Nearly half of parents (46%) indicated that their stress levels rate between an 8 to 10, on a 10-point scale. These findings have been replicated in other studies as well, where levels of parental stress have been measured to be clinically significant (eg., ^{5,6}).

While parental stress is common and occurs even during times when parents are not affected by a pandemic (eg,, the current circumstances have created a unique situation where the parents are experiencing the risk factors for parental stress to an unprecedented degree^{8,9,10} and with a high degree of uncertainty for when, or if, things will return to normal. 11 This sets up a situation where parents are not just at an increased risk for parental stress, but where there is also a risk that parental stress may escalate to parental burnout.¹¹ Parental burnout is similar to parenting-related stress and is a stress-related disorder; however, parental burnout goes far beyond typical stress related to parenting. 12 Parents who experience parental burnout experience may also experience physical and mental exhaustion, somatic complaints and decreases in sleep quality, emotional distancing from their children, and a sense of incompetency in their role as a parent .^{12,13} Since burnout can outlast parenting stress, not only in duration, but also in severity and impact on parental health and well-being and child safety, research is needed to examine the extent to which the pandemic may have contributed not only to parenting stress, but to parental burnout specifically.

It is important to increase our understanding of parental burnout due to the effects that burnout can have on parentchild interactions. The link between parenting practices and parental stress has been well established in the literature (Abidin 1997;⁷), and research examining the connections between parenting practices and parental burnout specifically, while limited, has begun to indicate a similar relationship¹². Although more research is needed to understand any potential causal relationships, the literature does suggest that parental burnout has been associated with an increased risk for lowered levels of positive parenting practices and increased levels of harsh or inconsistent discipline and increased levels of parental neglect and violence. 14 While parental burnout may result in a parent's sense of incompetency in their role as a parent (Mikolajczak et al. 2018; ¹³), which may, in turn, impact a parent's perceptions of their parenting practices, research to date is not sufficient to indicate any causal relationships. Despite this limitation in our knowledge, research is needed that continues to examine these variables, particularly during times when parental stress is known to be high.

Although the literature has indicated that parent stress has been high during the pandemic, there is limited research that has allowed for a comparison with pre-pandemic levels. Due to the nature of a pandemic, where changes in circumstances come about quickly and unexpectedly, the use of traditional pre-post experimental designs is not possible. Some researchers have been able to take advantage of existing longitudinal studies (eg,,³), but these opportunities are limited and alternative methods are required. Retrospective pretests can meet this need. A retrospective pretest is an evaluation in which the researcher interviews or asks participants to recall behaviors or beliefs that occurred prior to an event or a specific point in time. 12,13 In situations, like the COVID-19 pandemic, when an event has already occurred, or is actively taking place, a retrospective pretest can help to evaluate the effects and understand any changes. 14-16 While there are limitations to consider, research on the validity of retrospective pretests suggest that they are as accurate, or more so, as traditional pretest measures, ^{12,13} suggesting that they may be an ideal tool for examining pandemic-related changes.

The purpose of the current study was to gain an understanding of how experiences of parental burnout and parenting practices may have changed due to the COVID-19 pandemic. To do this, a retrospective pretest method was used to do a pre-post comparison of parent perception across these two domains. In addition, the study sought to examine differences in parenting practices between parents whose levels of parental burnout increased from "normal" to clinical levels during the pandemic and those whose levels of parental burnout either decreased from, or remained constant at, "normal" levels.

Method

Participants

Two hundred and three parents participated in this study. Parents were invited to participate if they were at least 18 years of age and had at least one child living in their home. All parents lived in the United States, which, like the much of the world began to experience the effects of the COVID-19 pandemic in early spring 2020. At the time of the study, only 3.0% of parents (n = 6) had not experienced any mandated restrictions, while the majority of parents experienced state, county, or municipal recommendations to stay home as much as possible (41.1%, n = 83), to only leave home for essential purposes (54.5%, n = 110), or to quarantine due to suspected or confirmed exposure to COVID-19 (1.5%, n = 3).

The majority of the parent participants were mothers (91.6%, n = 186). They ranged in age from 24 to 58 years (mean age = 37.9 years, SD = 6.0), and were predominantly Caucasian (88.2%, n = 177). All participants had completed high school, with most completing at least some college or university coursework (97.5%, n = 198). Parents reported

Griffith et al. 3

an average of 2.1 children, aged infant through 19 years, living in the home (SD = 0.9, range = 1-8). The majority of parents reported living in traditional two-parent families (74.9%, n = 152), while others lived in stepfamilies (13.3%, n = 27), single parent families (5.4%, n = 11), multi-generational families (3.9%, n = 8), or same-sex parent families (2.0%, n = 4). One third of parents reported that at least one child in their home had a physical, cognitive, or emotional disability (33.0%, n = 67), while just over a quarter of parents reported a physical or emotional disability of their own (26.6%, n = 54).

Almost half of parents reported living in a mid- to largesized town (49.2%, n = 100), while over one third (38.4%, n = 78) were living in a small town, and the remainder were living in a more rural setting (12.3%, n = 25). The majority of participants reported that they made a very good (25.6%, n = 52) or good (37.9%, n = 77) financial living. A smaller percentage indicated that their financial living was sufficient (23.2%, n = 47), moderate/modest (10.3%, n = 21), or poor (2.5%, n = 5).

Procedures

To gain an understanding of the parenting experience during the COVID-19 pandemic and perception of how it had changed from before the pandemic, a brief, anonymous survey was conducted. The survey was developed by the authors and included questions created specifically for this study, in addition to questions drawn from The Parental Burnout Assessment (PBA:, 10), and the Positive Parenting Inconsistent Discipline (ID), and Corporal Punishment (CP) subscales of The Alabama Parenting Questionnaire (APQ.¹⁷). The questions sought to obtain information on 1) demographics, 2) levels of parental burnout before and during the pandemic, and 3) parenting practices before and during the pandemic. To gather information about changes that had occurred from before to during the pandemic, questions were presented using a retrospective pretesting method. 12 First participants were asked to answer a series of questions based on their experiences at the time of the study, during the pandemic. They were then asked to answer the same questions a second time, based on how they recalled things to be before the pandemic. For example, for questions on the PBA, parents were first asked to "Choose the answer that best matches how often you feel this way now, DURING the pandemic." Then, once all the PBA questions had been answered, they were asked to repeat the measure and to "Choose the answer that best matches how often you felt this way BEFORE the pandemic."

The survey was created using Qualtrics® and was distributed via emails to personal and professional contacts and through postings on social media. To avoid potential of self-selection bias, where parents experiencing parental burnout may have been more likely to volunteer to

participate, the recruitment information simply indicated that the study was to examine parent perception of the parenting experience during the COVID-19 pandemic. Following Institutional Review Board approval, a snowball method was used for recruitment, ¹⁸ allowing recipients and viewers to share the recruitment information with any other individuals who may have been interested in participating. ¹⁹ Although the method of distribution does not allow for calculation of a response rate, and the participants represent only a small number of potential parents, this number is not inconsistent with other survey research conducted and published within the parental burnout literature (e.g., ^{20,21}).

Data Analyses

Data for this study were analyzed in four phases. First, descriptive analyses (eg, frequencies, means, standard deviations²² were conducted to provide a summary of the data from before and during the pandemic. Second, a series of paired t-test analyses were conducted to determine statistical significance of differences, or changes, in parent reports from these two points in time.²² To control for the number of t-tests that were conducted, the Bonferroni correction method was used to adjust the alpha values (adjusted alpha = .006). For those changes that were deemed to be statistically significant at the adjusted alpha level, Cohen's d effect sizes were also computed to determine the magnitude of the changes. Third, a Chi-square analysis²² was conducted to examine the relation between the percentage of participants with clinically significant scores on the PBA and the time that was referenced for each PBA assessment that was completed. Finally, independent samples t-test analyses²² were conducted to determine statistical significance of differences between participants whose levels of parental burnout increased to clinical levels during the pandemic versus those whose levels of parental burnout either decreased from or remained constant at "normal" levels. Bonferroni adjustments were also made for these analyses (adjusted alpha = .008), and Cohen's d effect sizes were calculated to determine the magnitude of any differences significant at this adjusted alpha level.

Results

Changes from Before to During the Pandemic

Table 1 presents the data for all parent participants for the PBA, presenting data for each subscale and for the total score, and for the three subscales of the APQ (Positive Parenting, Inconsistent Discipline, and Corporal Punishment). For each subscale and total score, the means and standard deviations are presented for the times before the pandemic and during the pandemic, as are the t-values

Table 1. Changes from Before to During the Pandemic for All Parent Participants.

	Before COVID-19 Pandemic Mean (SD)	After COVID-19 Pandemic Mean (SD)	t- value	Degrees of Freedom	p-value	Effect Size (d)
Parental Burnout Assessment	Ĭ.					
Exhaustion	19.9 (11.2)	28.4 (14.5)	-10.0	202	<.001 ^a	0.67
Contrast	10.2 (6.0)	14.3 (9.1)	-7.2	202	<.001 ^a	0.53
Saturation	7.3 (4.3)	9.4 (6.5)	-5.5	202	<.001 ^a	0.38
Distancing	4.6	5.6	-4.7	202	<.001 ^a	0.32
Total	(2.6) 42.0 (23.0)	(3.6) 57.6	-8.5	202	<.001ª	0.58
Alabama Parenting Ouestionnaire	(22.0)	(31.2)				
Positive Parenting	24.8 (3.3)	24.5 (3.1)	-2.5	202	.014 ^b	0.09
Inconsistent Discipline	13.0	14.0	-5.I	202	<.001ª	0.25
Corporal Punishment	(4.0) 4.8 (1.5)	(4.1) 5.0 (1.5)	-2.8	202	.005ª	0.13

Note. To control for the number of t-tests that were conducted, the Bonferroni correction method was used. P-values significant at the adjust alpha level (.006) are indicated with a superscript a. P-values significant at the original alpha value (.05) only, are indicated with a superscript b.

Table 2. Correlations between the PBA and APQ Before and During COVID-19 Pandemic.

	Before COVID-19 Pandemic				
	Positive Parenting	Inconsistent Discipline	Corporal Punishment		
Parental Burnout Assessment					
Exhaustion	102	.263 ^a	.187 ^b		
Contrast	067	.383 ^a	.300 ^a		
Saturation	–.159 ^ь	.306 ^a	.304ª		
Distancing	211 ^b	.262 ^a	.238 ^a		
Total	126	.328 ^a	.269ª		
	During COVID-19 Pandemic				
	Positive	Inconsistent	Corporal		
	Parenting	Discipline	Punishment		
Parental Burnout Assessment					
Exhaustion	–.152 ^ь	.376 ^a	.195 ^b		
Contrast	222^{a}	.409 ^a	.253 ^a		
Saturation	281 ^a	.357 ^a	.218 ^a		
Distancing	319 ^a	.415 ^a	.191 ^b		
Total	23 I ^a	.416ª	.232 ^a		

Note. To control for the number of correlational analyses that were conducted, the Bonferroni correction method was used. P-values significant at the adjust alpha level (.002) are indicated with a superscript a. P-values significant at the original alpha value (.05) only, are indicated with a superscript b.

for the comparison, along with the degrees of freedom, p-values, and, if the t-test analyses were statistically significant at the Benferroni-adjusted p-value, the Cohen's d effect size. Analyses of grouped parent data showed statistically significant increases across all subscales of the PBA, as well as the total PBA score at the adjusted alpha level. Effect sizes indicated that the changes were small to medium, with the smallest effect for the Distancing subscale (d = 0.32) and the largest effect for the Exhaustion subscale (d = 0.67).

For the APQ, data indicated a slight decrease in positive parenting practices, with slight increases in both inconsistent discipline and use of corporal punishment. The differences in the inconsistent discipline and corporal punishment subscales were statistically significant at the adjusted alpha level, with the Cohen's d effect sizes indicating small changes. Although the difference in the positive parenting subscale would have been significant at an alpha level of .05, this difference did not hold at the adjusted alpha level.

Correlations between the PBA and APQ are presented in Table 2, for times before the pandemic and during the pandemic. Data indicate that there were small to medium associations between levels of parental burnout and most parenting practices before the pandemic and for all parenting practices during the pandemic, with increased levels of parental burnout associated with decreased levels of positive parenting practices and increased levels of inconsistent discipline and corporal punishment.

Griffith et al. 5

Further Examination of Clinically Significant Parental Burnout

According to the developers of the PBA, 23 a total score of 92 or above indicates a clinically significant level of parental burnout. Based on this cutoff, the total mean scores for both before and during the pandemic fall within the "normal" range. This would suggest that, overall, parents were not at particular risk for parental burnout either before or during the pandemic. However, to examine this further, a Chi-square analysis was conducted to examine the relation between clinically significant scores on the PBA and the time that was referenced for each PBA assessment that was completed (ie, for before and during the COVID-19 pandemic). The relation between these variables was statistically significant, X^2 (1, N = 203) = 17.4, p < .001, indicating that there was a difference between these two points in time, with more parents scoring themselves in the clinically significant range for parental burnout during the pandemic compared to before the pandemic.

Inspection of the data indicated that there were three groups of parents, those whose total PBA scores decreased during the pandemic, moving from clinical levels to "normal" levels (n = 5), parents whose scores stayed consistent for both points in time (either consistently "normal" or consistently clinical; n = 173), and parents whose scores increased from "normal" to clinically significant levels (n = 25). To better understand the way that a clinically significant increase in parental burnout may impact parenting practices, a series of independent samples t-tests were conducted to compare the differences between two specific groups; the first group was comprised of parents whose total PBA scores decreased from clinical to normal levels and those whose scores remained consistently in the "normal" level (n = 171), and the second group was comprised of parents whose scores increased from "normal" to clinical levels (n = 25). Parents whose scores remained consistently at the clinically significant level were not included in these analyses. Data are presented in Table 3. Results indicated that there were no statistically significant differences, at either p = .05 or the adjusted alpha level, for any of the APQ subscales for the measure completed for before the pandemic, suggesting that parents who moved from a "normal" to clinical level of parental burnout engaged in similar parenting practices before the pandemic as those who saw consistently "normal" or decreasing scores. In contrast, there were statistically significant differences at the adjusted alpha level for both the positive parent subscale and the inconsistent discipline subscale, with a Cohen's d effect size indicating medium effects for both. Although the data for the corporal punishment subscale indicated a significant difference at an alpha level of p = .05, this did not maintain at the adjusted alpha level.

Discussion

The current study sought to gain an understanding of the effects of the COVID-19 pandemic on levels of parental burnout and on parenting practices. Of further interest was the association that an increase in parental burnout from "normal" levels before the pandemic to clinical levels during the pandemic may have had with the occurrences of positive and negative parenting practices. Due to the nature of a pandemic, the use of pre-planned traditional experimental designs were largely not feasible, however, the use of this retrospective pretest did allow for insights on parent perception of their experiences prior to the pandemic and on how these experiences may have changed as COVID-19 began to affect daily life.

Data from the current study suggest that the pandemic had a significant impact on parents, increasing overall levels of parental burnout and impacting parenting practices by reducing use of positive parenting strategies and increasing use of inconsistent discipline and corporal punishment. These changes in parenting practices were even more pronounced for parents whose levels of parental burnout moved from "normal" levels before the pandemic to clinical levels during the pandemic. Although the use of a retrospective pretest requires caution when interpreting the data, this method has been found to produce results comparable to those obtained from traditional pretest measures (e.g., ^{12,13}). Also, the use of a retrospective pretest may have allowed for more accurate insight on how parents perceived the changes in their experiences, as it may have resulted in a reduction of response-shift bias that could artificially reduce the magnitude of perceived changes, as the unprecedented context of the pandemic would likely put previous experiences into a different perspective (e.g., ²⁴).

Although the data collected in the current study do not provide an explanation as to why parents experienced changes in parental burnout or parenting practices, these findings were not unexpected. The Balances Between Risks and Resources theory of parental burnout (BR2²⁵) suggests that the chronic imbalance between stress-inducing factors (ie, demands and risks) and stress-alleviating factors (ie, resources and protections) is what leads parents to experience parental burnout. The COVID-19 pandemic put in place a series of events that have resulted in a significant increase in the demands being placed on parents (eg, 24-7 childcare, transitioning children to remote education of homeschooling, transitioning to working remotely) and a significant increase in risk factors (eg, reduced access to social supports, reduced access to time and resources for leisure activities, reductions in physical and financial security), both of which were in place for extended period of time with a great deal of uncertainty on how or when they would end.8

While the current data cannot provide a direct causal link between the increase in levels of parental burnout and the worsening of parenting practices, previous research has

Table 3. Changes from Before to During the Pandemic for Parents with a Change to Clinical Levels of Parental Burnout.

	Parents with Consistent or Decreased Levels of Burnout $(n = 171)$	Parents with Increased Levels of Burnout $(n = 25)$	t- value	Degrees of Freedom	p-value	Effect Size (d)
Alabama Parenting Questionnaire						
Positive Parenting						
Before COVID-19 Pandemic	24.9	24.1	1.1	194	.234	
Mean (SD)	(3.2)	(4.1)				
During COVID-19 Pandemic	24.8	22.6	1.0	194	<.001ª	0.71
Mean (SD)	(3.1)	(3.2)				
Inconsistent Discipline Before COVID-19 Pandemic	12.7	14.0	1.5	194	.136	
Mean (SD)	(4.0)	(4.0)				
During COVID-19 Pandemic	13.4	17.0	4.3	194	<.001ª	0.75
Mean (SD)	(3.9)	(4.0)				
Corporal Punishment Before COVID-19 Pandemic	4.8	5.0	0.8	194	.447	
Mean (SD)	(1.6)	(1.4)				
During COVID-19 Pandemic	4.9	5.7	2.5	194	.015 ^b	0.53
Mean (SD)	(1.5)	(1.8)				

Note. To control for the number of t-tests that were conducted, the Bonferroni correction method was used. P-values significant at the adjust alpha level (.008) are indicated with a superscript a. P-values significant at the original alpha value (.05) only, are indicated with a superscript b.

suggested that as parents experience increased levels of parental burnout, they are more likely to experience physical and mental exhaustion, emotional distancing from their children, and a sense of incompetency in their roles as parents (Mikolajczak et al, 2018). In addition, research suggests that parents experiencing parental burnout often experience a disconnect between their expectations for themselves as parents and their perceptions of whether or not they meet those expectations (Mikolajczak et al, 2018). All of these factors may play a role in a parent's perceptions of their parenting practices and would likely lead to a worsening of scores on measures of parenting behavior. Therefore, it is unsurprising that parents who reported the greatest increases in levels of parental burnout also reported the greatest degree of worsening of parenting behavior. While it is possible that parental burnout may lead to worsening parenting practices, there may also be other factors at play that impact both parental burnout and parenting practices, so caution must be taken to not assume a causal role for either variable.

Limitations

While the findings of the current study provide some interesting data to help improve our understanding of the effects of the COVID-19 pandemic on the parent experience, there are several limitations that should be acknowledged. First, as mentioned above, the current study made use of a self-report retrospective pretest to gather information about parental burnout and parenting practices from before the pandemic. Although the literature on retrospective pretests indicates several benefits for this type of measurement, there are some drawbacks to this approach. Specifically, there may be an increased risk to the internal validity of the study due to issues related to memory recall or fabricated responses to align with perceived expectations of the research.²⁶ Considering the constraints of an event like the pandemic, for which there was little warning, there are few options for alternative research methods, however, acknowledgement of the limitations of this design are important as conclusions are drawn from the data.

Griffith et al. 7

A second limitation is related to the size and demographic makeup of the participant pool. The current study included only 203 participants, the majority of whom were Caucasian mothers of an upper-middle socio-economic level. It is known that the pandemic had disproportionate effects on the population, based on factors such as race and socioeconomic levels, with middle-class, Caucasian mothers, as a group, being somewhat more sheltered to the most detrimental effects of the pandemic.²⁷ Their experiences during the pandemic, including the stressors experienced and the perception of any changes in burnout or parenting practices, may have differed from the larger, more diverse U.S. population, and thus there may be limits to the generalizability of the data. Although almost all analyses indicated statistical significance, suggesting an adequate power to the study, ²⁸ a larger sample size, including a more diverse participant pool, may have resulted in a greater amount of variability in the data²² and, perhaps, different results. Any future studies should consider this limitation as recruitment procedures are developed.

A final limitation that will be mentioned, is regarding the specific measures that were used to assess parental burnout and parenting practices. The concept of parental burnout has only recently gained wide-spread attention. 11 As a result, there are limited measures available to assess parental burnout; however, the PBA has demonstrated adequate psychometric properties for diverse populations (eg, ^{29–31} and it is likely the most efficient and effective measure for this construct. Parenting practices, however, have been measured in a multitude of ways using a vast number of measures.³²). The APQ was selected due to its widespread use in research, adequate psychometrics for varied populations, and its focus on specific domains (positive parenting practices, inconsistent discipline, and corporal punishment) relevant to parental burnout; however, it must be acknowledged that selection of alternative measures may have impacted the findings of this study and the conclusions that were drawn. Future research may benefit from additional measures that may assess different aspects of parenting.

Implications and Directions for Future Research

The findings of the current study suggest that the COVID-19 pandemic has had an impact on levels of parental burnout and parenting practices. Although the scope of the study did not allow for an examination of the ways that these changes may have impacted parent mental health, the family dynamic, or child behavior, previous research suggests that these domains may be affected by increased rates of parental burnout (eg, Mikolajczak et al., 2018¹¹) or a worsening of parenting practices (eg,.^{33,34}). As a result, there is a need for practitioners to understand the effects that the pandemic may have had on parents and families, with an understanding that an increased number of families may be at ongoing risk despite a relaxation of COVID-19 restrictions.³⁵

To better support clinicians working with families, additional research is needed to improve our understanding of

the current needs of parents and families. Additional research may take advantage of the retrospective pretest method, to increase our awareness of changes that have occurred since the pandemic began, particularly in areas of family dynamics and access to resources. Research may also be used to learn about current parent and child behavior, which can then be compared to previous literature to determine both the current status and changes that may have taken place. Finally, research on interventions is needed to ensure that parents are getting the supports they need to improve and maintain mental well-being and promote positive parent-child interactions.

Declaration of Conflicting Interests

The authors do not have any conflicts of interest to disclose.

Ethics Review and Participant Consent

This research study was approved by the Institutional Review Board at the institution of the authors. Consent was obtained from all participants prior to participation in the study.

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References

- Center for Disease Control and Prevention. (2022). Covid data tracker weekly review. Retrieved from https://www.cdc.gov/ coronavirus/2019-ncov/covid-data/covidview/index.html
- Pew Research Center. 2020. How the coronavirus has- and hasn't- changed the way Americans work. Retrieved from https://www.pewresearch.org/social-trends/2020/12/09/how-thecoronavirus-outbreak-has-and-hasnt-changed-the-way-americanswork/
- 3. Feinberg ME, Mogle J, Lee J, et al. Impact of the COVID-19 pandemic on parent, child, and family functioning. *Family Process*. 2022;61(1):361–374. doi:10.1111/famp.12649
- American Psychological Association. 2020. Stress in AmericaTM 2020: A National Mental Health Crisis.
- Calvano C, Engelke L, Di Bella J, Kindermann J, Renneberg B, & Winter SM. Families in the COVID-19 pandemic: parental stress, parent mental health and the occurrence of adverse childhood experiences-results of a representative survey in Germany. *European Child & Adolescent Psychiatry*. 2021:1– 13. doi:10.1007/s00787-021-01739-0.
- Marchetti D, Fontanesi L, Mazza C, Di Giandomenico S, Roma P, Verrocchio MC. Parenting-Related exhaustion during the Italian COVID-19 lockdown. *Journal of Pediatric Psychology*. 2020;45(10):1114–1123. doi:10.1093/jpepsy/jsaa093.
- Abidin RR. Parenting stress index: a measure of the parent child system. In: Zalaquette C, Woods R, eds. Evaluating Stress: A Book of Resources. Scarecrow Press Inc; 1997:277–291.

 Coyne SM, Rogers AA, Zurcher JD., Stockdale L, Booth M. (2020). Does time spent using social media impact mental health?: An eight year longitudinal study. *Computers in Human Behavior*. 2020; 104: 106160. doi:10.1016/j.chb.2018.106160

- degli Espinosa F, Metko A, Raimondi M, Impenna M, Scognamiglio E. A model of support for families of children with autism living in the covid-19 lockdown: Lessons from Italy. *Behavior Analysis in Practice*, 2020; 13: 550-558. doi:10.1007/s40617-020-00438-7
- Szabo TG, Richling S, Embry DD, Biglan A, Wilson KG. (2020). From helpless to hero: Promoting values-based behavior and positive family interaction in the midst of covid-19. Behavior Analysis in Practice, 2020; 13: 568-576. doi:10. 1007/s40617-020-00431-0
- Griffith AK. Parental Burnout and Child Maltreatment During the COVID-19 Pandemic. *Journal of Family Violence*, 2022;37(5):725–731. doi:10.1007/s10896-020-00172-2
- 12. Mikolajczak M, Brianda ME, Avalosse H, Roskam I. Consequences of parental burnout: its specific effect on child neglect and violence. *Journal of Child Abuse and Neglect*. 2018;80:134–145. doi:10.1016/j.chiabu.2018.03.025.
- Roskam I, Raes M-E, Mikolajczak M. Exhausted parents: development and preliminary validation of parental burnout inventory. *Frontiers in Psychology*. 2017;8:163. doi:10.3389/ fpsyg.2017.00163.
- Mikolajczak M, Gross JJ, Roskam I. Parental burnout: what is it, and why does it matter? *Clinical Psychological Science*. 2019; 7(6):1319–1329. doi:10.1177/2167702619858430.
- Klatt, J., & Taylor-Powell, E. (2005). Synthesis of literature relative to the retrospective pretest design. Retrieved from http://comm.eval.org/communities/communityhome/librarydocuments/viewdocument?DocumentKey=dd68cf37-711c-42e3-bc4b-505148397995&C
- Nimon K, Allen J. A review of the retrospective pretest: implications for performance improvement evaluation and research. Workforce Education Forum. 2007;44(1):36–55.
- Brook J, Akin BA, Lloyd M, Bhattarai J, McDonald TP. The use of prospective versus retrospective pretests with child-welfare involved families. *Journal of Child and Family Studies*. 2016;25(9):2740– 2752. doi:10.1007/s10826-016-0446-1.
- 18. Chang R, Little TD. Innovations for evaluation research: multiform protocols, visual analog scaling, and the retrospective pretest-posttest design. *Evaluation & the Health Professional*. 2018;41(2):1–24. doi:10.1177/0163278718759396.
- Nakonezny PA, Rodgers JL. An empirical evaluation of the retrospective pretest: are there advantages to looking back? *Journal of Modern Applied Statistical Methods*. 2005;4(1):240–250. doi:10. 22237/jmasm/aaa4906920.
- Frick PJ. The Alabama Parenting Questionnaire. Unpublished Rating Scale. University of Alabama; 1991, doi:10.1037/ t58031-000.
- Allen. The SAGE encyclopedia of communication research methods. The SAGE Encyclopedia of Communication Research Methods. Vol 1-4. Sage Publications; 2017. doi:10. 4135/9781483381411.
- Biernacki P, Waldorf D. Snowball sampling: problems and techniques of chain referral sampling. *Sociological Methods* & *Research*. 1981;10:141–163.
- Lebert-Charron A., Dorard G., Boujut E., Wendland J. (2018).
 Maternal burnout syndrome: contextual and psychological

- associated factors. Frontiers in Psychology, 9, 885–885. doi:10.3389/fpsyg.2018.00885
- Norberg AL. Burnout in mothers and fathers of children surviving brain tumour. *Journal of Clinical Psychology in Medical Settings*. 2007;14(2):130–137. doi:10.1007/s10880-007-9063-x.
- 25. Gravetter FJ, Wallnau LB. Statistics for the Behavioral Sciences. 10th Ed. Wadsworth/Cengage; 2017.
- Roskam I, IIPB Consortium, Mikolajczak M. Parental burnout around the globe: a 42-country study. Affective Science. 2021; 2. doi:10.1007/s42761-020-00028-4.
- 27. Drennan J, Hyde A. Controlling response shift bias: the use of the retrospective pre-test design in the evaluation of a master's programme. *Assessment and Evaluation in Higher Education*. 2008;33(6):699–709. doi:10.1080/02602930701773026.
- Mikolajczak M, Roskam I. A theoretical and clinical framework for parental burnout: the balance between risks and resources (BR2). Frontiers in Psychology. 2018;9:886–886. doi:10. 3389/fpsyg.2018.00886.
- 29. Lamb T. The retrospective pretest: an imperfect but useful tool. *The Evaluation Exchange*. 2005;11:3–4.
- Magesh S, John D, Li WT, et al. Disparities in COVID-19 outcomes by race, ethnicity, and socioeconomic status: a systematic-review and meta-analysis. *JAMA network Open*. 2021;4(11):e2134147–e2134147. doi:10.1001/jamanetworkopen. 2021.34147.
- 31. Serdar CC, Cihan M, Yücel D, Serdar MA. Sample size, power and effect size revisited: simplified and practical approaches in pre-clinical, clinical and laboratory studies. *Biochemia medica*. 2021;31(1):010502. doi:10.11613/BM.2021.010502.
- 32. Aunola K, Sorkkila M, Tolvanen A. Validity of the Finnish version of the Parental Burnout Assessment (PBA). *Scandinavian Journal of Psychology*. 2020;61(5):714–722. doi:10.1111/sjop.12654.
- 33. Furutani T, Kawamoto T, Alimardani M, Nakashima K. Exhausted parents in Japan: preliminary validation of the Japanese version of the parental burnout assessment. *New Directions for Child and Adolescent Development*. 2020;2020(174):33–49. doi:10.1002/cad.20371.
- 34. Mousavi SF, Mikolajczak M, Roskam I. Parental burnout in Iran: psychometric properties of the Persian (Farsi) version of the parental burnout assessment (PBA). *New Directions for Child and Adolescent Development*. 2020;2020(174):85–100. doi:10.1002/cad.20369.
- 35. Hurley KD, Huscroft-D'Angelo J, Trout A, Griffith A, Epstein M. Assessing parenting skills and attitudes: a review of the psychometrics of parenting measures. *Journal of Child and Family Studies*. 2013;23(5):812–823. doi:10.1007/s10826-013-9733-2.
- Karande J, Kuril S. Impact of parenting practices on parentchild relationships in children with specific learning disability. *Journal of Postgraduate Medicine (Bombay)*. 2011;57(1):20– 30. doi:10.4103/0022-3859.75344.
- 37. Shaffer A, Lindhiem O, Kolko DJ, Trentacosta CJ. Bidirectional relations between parenting practices and child externalizing behavior: a cross-lagged panel analysis in the context of a psychosocial treatment and 3-year follow-up. *Journal of Abnormal Child Psychology*. 2012;41(2):199–210. doi:10.1007/s10802-012-9670-3.
- 38. Curtis T, Miller BC, Berry EH. Changes in reports and incidence of child abuse following natural disasters. *Child Abuse & Neglect*. 2000;24(9):1151–1162. doi:1016/S0145- 2134(00)00176-9.