

Stressor pileup, family and couple relational well-being, and parent stress during the COVID-19 pandemic

Anis Ben Brik, Natalie A. Williams, Sarah Barker Ladd

Item type

Journal Contribution

Terms of use

This work is licensed under a [CC BY 4.0](https://creativecommons.org/licenses/by/4.0/) license

This version is available at

https://manara.qnl.qa/articles/journal_contribution/Stressor_pileup_family_and_couple_relational_well_being_and_parent_stress_

Access the item on Manara for more information about usage details and recommended citation.

Posted on Manara – Qatar Research Repository on

2023-12-21

RESEARCH

Stressor pileup, family and couple relational well-being, and parent stress during the COVID-19 pandemic

Anis Ben Brik¹  | Natalie A. Williams²  | Sarah Barker Ladd³

¹College of Public Policy, Hamad Bin Khalifa University, Doha, Qatar

²Institute for Rehabilitation Science and Engineering, Madonna Rehabilitation Hospitals, Lincoln, NE

³Department of Child, Youth and Family Studies, College of Education and Human Sciences, University of Nebraska–Lincoln, Lincoln, NE

Correspondence

Natalie A. Williams, PhD, Institute for Rehabilitation Sciences and Engineering, Madonna Rehabilitation Hospitals, 5401 South Street, Lincoln, NE 68506, USA.
 Email:
 Email: nwilliams@madonna.org

Abstract

Objective: The goal was to explore mechanisms linking cumulative stressors with parent stress during COVID-19.

Background: Public health measures helped contain COVID-19 spread, but disrupted family life and increased parents' stress. Positive family relationships and beliefs about the impact of challenges can foster psychological resilience during adversity and may influence parents' stress.

Method: Participants included parents from the U.S. sample of the internet-based Covid Family Life Study survey who indicated they were married or living with a romantic partner ($n = 1,386$). We tested a moderated mediation model predicting parent stress from the pileup of stressors, family and couple relationship satisfaction, and parent resilience beliefs.

Results: High stressor pileup was associated with lower family and couple relationship satisfaction, and higher parent stress. Relationship satisfaction mediated the effect of stressor pileup on parent stress, and the indirect effects were similar across all levels of parent resilience beliefs. Family satisfaction mediated the effect of stressor pileup on parent stress only for parents with low resilience beliefs. Parent resilience beliefs moderated the relations between relational well-being and parent stress. Higher family satisfaction was associated with lower stress for parents with low and moderate levels of resilience beliefs, but higher stress for parents with high resilience beliefs.

Conclusion: Relationship satisfaction may explain how stressor pileup affects parent stress. Resilience beliefs may affect the explanatory role of family satisfaction.

This is an open access article under the terms of the [Creative Commons Attribution](https://creativecommons.org/licenses/by/4.0/) License, which permits use, distribution and reproduction in any medium, provided the original work is properly cited.

© 2023 The Authors. *Family Relations* published by Wiley Periodicals LLC on behalf of National Council on Family Relations.

Implications: Interventions to improve family satisfaction may be most impactful for parents who have low confidence in their ability to adapt to change and bounce back from adversity.

KEYWORDS

adaptation, couple relationships satisfaction, family satisfaction, parent resilience beliefs, pileup, stress buffer

States and communities implemented extraordinary precautionary restrictions in an effort to reduce the spread of COVID-19 in the United States in the early phase of the pandemic (Brooks et al., 2020). Public health mitigation measures required people to withdraw from school, work, and social relationships (Zhang et al., 2020) resulting in profound disruption to family life. The first school closure associated with COVID-19 in the United States occurred on February 27, 2020, in Washington state and just over a month later all but one U.S. public school district were closed. Approximately 100,000 U.S. public schools remained closed for more than 8 weeks, affecting over 50 million K–12 students (Zviedrite et al., 2021). Parents of children enrolled in public school more commonly reported that their children received virtual instruction during the 2020–2021 academic year (47.6%) compared with parents of children enrolled in private school (20.3%; Verlenden et al., 2021).

The COVID-19 pandemic also upended the U.S. labor market. More than 20 million jobs were lost between March and April 2020, and approximately 24% of employed adults transitioned to work from home due to widespread shutdown (Bartik et al., 2020). Parents employed in essential professions were required to continue working outside the home but without access to critical family support resources such as school, day care services, sports teams, and after-school activities. The COVID-19 outbreak resulted in increased unemployment. From February 2020 to February 2021, a net 2.4 million women and 1.8 million men left the labor force (Kochhar & Bennett, 2021). Consequently, parents navigated major work transitions and adapted to changes in income while supporting and supervising their children through the day (Garbe et al., 2020). A growing literature suggests that these major changes to family life substantially increased parents' stress during COVID-19 (Salari et al., 2020).

Prolonged periods of stress adversely affects parents' physical and mental health (Schneiderman et al., 2005). Chronic stress can lead to parental burnout, characterized by an overwhelming feeling of exhaustion related to the parenting role, emotional distancing from children, and a reduced sense of parenting competence (Mikolajczak et al., 2019). These sequelae of parent psychological stress could be temporary during COVID-19; however, the pandemic has been associated with increases in maladaptive health behaviors, mental health concerns, and relationship changes that could persist after acute stress resolves (Avena et al., 2021; Feinberg et al., 2022; Gassman-Pines et al., 2020).

Conceptual framework

The present study aimed to understand how family relational factors and individuals' cognitions about their ability to weather crises affected parents' experience of stress during first year of the COVID-19 pandemic. Specifically, we examined whether family and couple relationship satisfaction explain the relationship between stressor pileup and parent stress, and if the indirect effects of family and couple relationship satisfaction are different at varying levels of parents' resilience beliefs. The ABC-X model was used to examine these relationships. The ABC-X theoretical model of family stress and adaptation

framework is rooted in social systems theory and views the family unit as a system that must maintain equilibrium to meet the developmental, instrumental, and material needs of its members (McCubbin & Patterson, 1983; Rosino, 2016). A stressful event can disturb family equilibrium and requires resolution to avoid persistent dysfunction and negative outcomes. Family members are at risk for poor adaptation in stressful contexts when they fail to engage in critical functions that support each other and family well-being such as utilizing adaptive resources or providing emotional support to each other. Predictor variables within the ABC-X model include stressor pileup (representing the letter A); the family's existing resiliency-promoting adaptive resources, such as positive and supportive relationships (representing the letter B); and parents' evaluations of stressors and their likely impacts (representing the letter C; Rosino, 2016). Evaluations of stressors and their impacts has been operationalized in different ways across studies, including individuals' meaning making regarding the extent to which the stressor represents a crisis and perceptions of the family's ability to effectively manage it. The outcome variable (representing the letter X) represents the extent to which the stressor precipitates a new crisis that threatens the family's functioning and well-being (e.g., adaptation outcomes such as psychosocial stress and mental illness symptoms).

Traditionally in the ABC-X model, the B (family resources) and C (evaluation of the stressors) variables can be tested as either moderators or mediators of the relationship between the A (stressors) variable and the X (adaptation outcomes) variable. This study hypothesized both mediation and moderation (Figure 1). Consistent with the ABC-X model's focus on family stress and adaptation, most applications of this framework utilize family-level predictor variables, such as stressors that impact the whole family, family-level outcomes, and family resilience beliefs and processes. In the present study, individual-level experiences of stressors and perceptions of resilience are examined in a divergence from the traditional approach. Prior studies using the ABC-X model with individual-level variables suggest that individual-level adaptive resources and evaluations of stressors can serve as explanatory factors in the association between stressor pileup and various indicators of individuals' adaptation, including parent mental health, stress, health-related quality of life, and family dysfunction. For example, Boettcher et al. (2021) tested a parallel multiple mediation model and found that mothers' adaptation to a rare congenital surgical disease in their children was mediated by family functioning, social support, and perceived stress. Similarly, in their investigation of caregiver quality of life in caregivers to children with childhood-onset dystrophinopathy, Frishman et al. (2017) found that the association between stressor pileup was mediated by global perceived social support, supportive family relationships, and perceived stress and control.

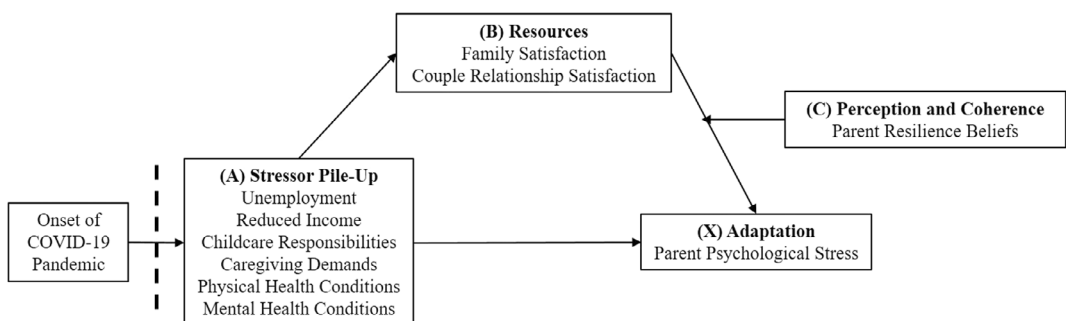


FIGURE 1 Conceptual model

Stressor pileup during COVID-19

Stressor pileup occurs when an individual experiences multiple stressors within a relatively narrow period of time. Stressor pileup was highly prevalent during the third quarter of the COVID-19 pandemic when data for the present study were collected. Illustratively, in one study parents reported experiencing, on average, more than eight of a potential 25 COVID-19 pandemic-related stressors. Three quarters of parents experienced five or more stressors (mean = 8.2 ± 4.3) and one quarter experienced 11 or more stressors (Singletary et al., 2022). Stressors that “piled-up” for parents during the first year of the COVID-19 pandemic were disease-related (e.g., fears related to infection and potential consequences of the virus), economic (e.g., loss of income due to job changes), lockdown related (e.g., loss of child care, difficulties accessing medical and support services for family members with special needs), and grief related (e.g., loss of loved ones; Kira et al., 2021; Lotzin et al., 2022; Ye et al., 2020). Consistent with the extant literature documenting negative consequences of cumulative stressors on individuals’ well-being (O’Connor et al., 2021), exposure to COVID-19-related stressors is associated with a wide range of adverse psychological outcomes (Alzueta et al., 2021). Parents who experienced multiple stressors during the COVID-19 pandemic have been disproportionately affected by mental health sequelae (Lewis et al., 2022), including high levels of perceived stress (Brown et al., 2020; Childress et al., 2023).

Family relationships and parent stress

Positive and supportive family relationships can reduce individuals’ experience of stress when they encounter significant challenges, and thus serve as potential adaptive resources for families in times of adversity (Prime et al., 2020). One indicator of the overall relational well-being of a family system is family satisfaction. Family satisfaction is operationalized as an individual family member’s subjective evaluation of how pleased and gratified they are with relationships and support provided within their family (Olson, 2011; Rudolph & Zacher, 2021). Family satisfaction is associated with measures of general family functioning as well as discrete aspects of family functioning such as cohesion, adaptability, and communication (Zabriskie & Ward, 2013). Higher levels of family satisfaction was associated with better quality of life in adults during the pandemic, whereas decreased family satisfaction were associated with poorer mental health outcomes in both parents and children (Guerrero-Muñoz et al., 2021; Hussong et al., 2022). Relationship functioning within discrete family subsystems may also be associated with parent stress. Family subsystems are systems in and of themselves (e.g., parents, siblings, parent–child relationships) defined by boundaries and rules of interaction that may not apply to the larger family system (Perez-Brena et al., 2022). The relationship between a child’s parents (or a parent and their romantic relationship partner) is a prominent family subsystem that affects parents’ physical (Robles, 2014) as well as mental health (Braithwaite & Holt-Lunstad, 2017). In the pandemic context, poor marital adjustment is associated with higher perceived stress (Işık & Kaya, 2022).

Stressor pileup, family relationships, and parent stress

Family and couple relationships may play an explanatory role in the link between stressor pileup and parent stress during the COVID-19 pandemic. Lockdown measures provided the opportunity for family members to spend more leisure time together. Prior research has shown that spending more leisure time together can improve family members’ communication and cohesiveness, and increase overall satisfaction with family life (Agate et al., 2009). In this

scenario, positive family relationships offset the strain and disruption imposed by stressors. Significant life stressors, however, can also exacerbate preexisting relationship problems or create new difficulties (Neff & Karney, 2017). The potential for relationship deterioration during times of heightened stress is emphasized in the stress-divorce model, which posits that external stressors spillover into relationships to create internal dyadic stressors (Bodenmann et al., 2007). Internal dyadic stressors deplete partners' resources and impede them from satisfactorily addressing each other's relational needs. Over time, this diminishes a couple's ability to maintain a high level of relationship satisfaction (Pietromonaco & Overall, 2021).

Prolonged togetherness in the presence of pandemic-related stressors may be associated with increased family and couple disagreements, which can erode relationship functioning. Ahuja & Khurana (2021) assessed love and relationship satisfaction in adult couples pre- and post-COVID-19 lockdown and found that scores on relationship satisfaction, love, intimacy, and passion were significantly lower post-lockdown compared with the pre-lockdown period. In contrast, a mixed-methods study focusing on lockdown-related changes in family functioning among adult couples and parents living in Spain during lockdown found that participants were more likely to indicate improvements in family relationships (61.7%), such as increased (re)connection, versus deterioration (41.0%; Günther-Bel et al., 2020). In this study, relationship improvement, operationalized as family (re)connections and better communication, was related to lower psychological distress. Conversely, relationship deterioration, defined as conflicts and couple or family distance, was related to increased distress.

Stress buffering effects of resilience beliefs

How people think about adverse events and their potential impacts is related to both their immediate and long-term adaptation (Parsons et al., 2016). Psychological resilience and even posttraumatic growth (i.e., rebounding strengthened and more resourceful) are associated with normalizing stressors, maintaining a positive outlook despite present challenges, and making meaning from a crisis (Walsh, 2016). Research exploring positive adaptation in disaster contexts has borne this out. In these uncontrollable events, resilient outcomes are more likely when individuals make sense of challenges imposed by the disaster by incorporating the events into their existing resiliency beliefs (or by modifying their beliefs) in a way that promotes relational togetherness and a sense of coherence (for a review, see Park, 2016). Thus, parents who see their family as united and view the pandemic and associated stressors as time limited, manageable, and not arising from personal fault avoid catastrophic thinking and coruminating on worst-case scenarios, and are better able to maintain hope, a focus on the future, and the belief that adversity can lead to positive growth, may report lower psychological stress (Walsh, 2020). Recommendations to promote family and couple relationships reflect a key understanding from decades of research on resilience, specifically, that both family- and individual-level factors play important roles in fostering positive adaptation in times of adversity (Henry et al., 2015; Masten, 2018; Ungar & Theron, 2020). For example, the U.S. Department of Veterans Affairs (n.d.) outlined five "building blocks" to help parents minimize stress in the context of the pandemic. Recommended strategies focused on (a) *increasing family members' sense of safety* by staying informed and enacting health behaviors that decrease infection risk, (b) *increasing calming* by talking about difficult emotions and reducing activities that heighten anxiety, (c) *connecting with each other* using effective communication strategies and engaging in positive activities that promote interaction, (d) *building personal and family competence* by developing new coping skills and highlighting growth, and (e) *fostering hope* by observing with gratitude what people are doing to improve the situation or connecting with personal values and beliefs that help to make meaning of challenges.

Current investigation

The overarching objective of this study was to investigate parents' experience of stress during the fall of 2020 within the ABC-X conceptual framework. We conceptualize family satisfaction and couple relationship satisfaction as adaptive resources, or B factors, that influence the relationship between parents' experience of COVID-19-related stressors and their experience of stress. Parent resilience beliefs were included in the model as a C factor (i.e., evaluations of stressors and their likely impacts) that may interact with relationship satisfaction to jointly determine parents' stress (Rosino, 2016). In the present cross-sectional study, we test these premises using a moderated mediation analytic approach. The term moderated mediation is used to convey instances when the mechanism through which an independent variable affects a dependent variable via a third variable is moderated by a fourth variable, such that the mediation effect varies at different values of the moderator (Hayes, 2018b). Moderated mediation is a test of conditional indirect effects, or whether a hypothesized moderating variable influences the mediated relationship between an independent and dependent variable. Exploring mediation and moderation in the same model allowed us to address questions regarding mechanisms and contingencies, and capture the complexities of how stressor pileup, family relationships, and parent resilience beliefs are related and influence parent stress.

Our specific research question was whether family and couple relationship satisfaction explain the relationship between stressor pileup and parent stress, and if the indirect effects of family and couple relationship satisfaction are different at varying levels of parents' resilience beliefs. Figure 1 provides a graphic representation of our hypotheses. Stressor pileup was the focal predictor, family satisfaction and couple relationship satisfaction were the mediators, parent resilience beliefs was the moderator, and parent stress symptoms was the dependent variable. Age, gender, educational attainment, race/ethnicity, and employment status were included as covariates. As illustrated, we hypothesized a second stage moderated mediation model in which parent resilience beliefs moderated the second stage indirect paths through family satisfaction and couple relationship satisfaction, producing conditional indirect effects.

METHOD

Participants and data collection

Participants included 1,386 parents from the U.S. sample of the international COVID-19 Family Life Study (Ben Brik, 2020), which sought to explore the effects of the coronavirus pandemic on families across cultures. In brief, data for the larger study were collected in 72 countries (representing more than 75% of the world's population) using an internet-based survey to enable rapid simultaneous data collection across numerous countries. Potential participants were identified from an online panel from a research firm to be nationally representative in terms of age, sex, race/ethnicity, education, and marital status (i.e., quota sample) of parents with children under 18, and contacted via email with an invitation to participate. Individuals provided their informed consent by clicking a box on the introduction page. This study was approved by the institutional review board of Hamad Bin Khalifa University.

The analytic sample for the present study included a subset of participants from the U.S. sample who indicated they were married or living with a romantic partner ($n = 1,386$; Supplementary Table 1). Data were collected from September to October 2020, when the school year was opening with a mix of instructional plans ranging from return to full-time in-person classes to remote schooling to hybrid models. There was one respondent (participant) per family ($M_{\text{age}} = 36.7$ years, $SD = 9.3$). Most participants identified as White (70%)

with the next largest groups identifying as Hispanic (14.1%) and Black or African American (8.9%). Over half (52.0%) had a college education or more and 24.8% reported they had some college. About one fifth (23.2%) had a high school diploma or less. Most participants were working full-time (65.9%) or part-time (8.5%) at the time of the survey. Stay-at-home parents were also represented (11.8%). The sample had more male-identifying participants than female-identifying participants (56.4% versus 43.6%). In response to the question “What is your relationship to the children living with you in the household?”, 87% of the study participants reported that they were a parent, 4.5% were the parent’s partner, 1.9% were a stepparent, 2.9% were a grandparent, 1.0% were a temporary caregiver due to COVID-19, and 2.7% selected other. Among participants who reported they were parents, 56.7% were fathers and 43.3% were mothers.

Measures

Stressor pileup

Following procedures described in studies testing the ABC-X model, a composite sum variable reflecting stressor pileup was created for use in the present study. Potential stressors included those identified in prior studies (Lotzin et al., 2022). The stressor pileup count was based on the sum of the following dichotomous variables: (a) lost employment due to the COVID-19 pandemic (no = 0, yes = 1), (b) experienced a reduction income due to the COVID-19 pandemic (no = 0, yes = 1), (c) had to alter work arrangements due to different childcare responsibilities imposed by the COVID-19 pandemic (no = 0, yes = 1), (d) caring for a child with special educational needs (no = 0, yes = 1), (e) responsible for providing care for an elderly relative or friend (no = 0, yes = 1), (f) responsible for providing care to an individual with a chronic health condition or a disability (no = 0, yes = 1), (g) self or other member of household has one or more chronic physical health conditions (no = 0, yes = 1), and (h) self or other member of household has one or more chronic mental health conditions (no = 0, yes = 1). The resulting variable had a mean value of 2.68 ($SD = 1.61$) and ranged from 0–8.

Family satisfaction

The Family Satisfaction Scale (FSS) was developed by Olson and Wilson (1982) in relation to the circumplex model (Olson, 2011). The scale assesses the degree of satisfaction with aspects related to family cohesion and flexibility. The current version of the Family Satisfaction Scale contains 10 statements describing aspects of family functioning (e.g., “Your family’s ability to share positive experiences”, “Family members’ concern for each other”). Respondents’ rate their satisfaction for each statement on a 5-point Likert-type scale ranging from 1 = *very dissatisfied* to 5 = *extremely satisfied*. The scale is scored by summing items so that higher scores indicate more satisfaction. The potential range was 10–50 and the observed range was 10–50. The original reliability and validity analyses were based on studies of university students and from a national survey of married couples and adolescents (Olson & Wilson, 1982). In these studies, the reported Cronbach’s alpha for the total scale was .92 and the test–retest reliability was .75 after 5 weeks. Two more recent studies examining the Family Satisfaction Scale provide further evidence supporting its unifactorial structure as well as its acceptable validity and reliability across cultures (Habibi et al., 2015; Villarreal-Zegarra et al., 2017). Internal consistency reliability in our sample is excellent ($\alpha = .96$).

Couple relationship satisfaction

The ENRICH Marital Satisfaction Scale (EMS) is a brief measure of romantic relationship quality (Fowers & Olson, 1993) that includes items covering fundamental aspects of relationships including communication (“My partner and I understand each other perfectly”), conflict resolution (e.g., “I am very happy about the ways we make decisions and resolve conflicts”), roles (e.g., “I am very happy with how we handle role responsibilities in our relationship”), financial concerns (e.g., “I am unhappy about our financial position and the way we make financial decisions”), leisure time (e.g., “I am very happy with how we manage our leisure activities and the time we spend together”), sexual relationship (e.g., “I am very pleased about how we express affection”), parenting (e.g., “I am not satisfied with the way we each handle our responsibilities as parents”), family and friends (e.g., “I am dissatisfied about our relationship with my parents, in-laws, and/or friends), and religion (e.g., “I feel very good about how we each practice our religious beliefs and values”). Respondents, who in the present study may not be coparents, indicated the extent of their agreement with 15 statements using a 5-point Likert scale with 1 = *strongly disagree*, 2 = *disagree*, 3 = *neither agree nor disagree*, 4 = *agree*, and 5 = *strongly agree*. After reverse scoring several items so that higher scores indicate more positive evaluations, items are summed to compute raw scores for two scales: Marital Satisfaction (10 items) and Idealistic Distortion (five items). Raw scale scores are converted to percentile scores using national norms established for this questionnaire. Then, a final EMS score is calculated by using the Idealistic Distortion percentile score to correct the Marital Satisfaction percentile score downward based on the degree to which the respondent portrays the marriage in an impossibly positive way. The formula is $PCT = \text{percentile score for the Marital Satisfaction scale}$ and $ID = \text{percentile score for the Idealistic Distortion scale}$: $EMS \text{ score} = PCT - [(.40 \times PCT)(ID \times .01)]$.

The original reliability and validity analyses completed at the time of the instrument’s development were based on a national sample of married couples, the majority of whom were White and had at least some college education, similar to the current study sample. In the measure development sample, the reported Cronbach’s alpha for the EMS Scale was .86 and the test–retest reliability was .86 when readministered after a 4-week interval. Validity was established by robust correlations with other measures of marital satisfaction (concurrent validity) and established family and sociodemographic correlates of marital satisfaction (construct validity). Since then, this scale has been used in studies examining the relationship of marital satisfaction to individual health (Roberson et al., 2018), depressive symptoms (Goldfarb & Trudel, 2019), and stress (Najmi et al., 2018). The EMS has also been adapted and validated in other countries (Ferrão et al., 2019; Pandya, 2019; Suzuki, 2010). Most of these validation studies reported similar psychometric results to the original validation, with satisfactory validity and internal consistency. Internal consistency reliability for the scale in the current sample was similar to that reported in the measure development study and subsequent studies ($\alpha = .85$).

Parent resilience beliefs

The 10-item Conner-Davidson Resilience Scale (Campbell-Sills & Stein, 2007) is comprised of 10 of the original 25 items from the Conner-Davidson Resilience Scale (Connor & Davidson, 2003). The current version contains 10 statements describing beliefs and strategies about one’s ability to withstand challenging experiences (e.g., “Able to adapt and change,” “See the humorous side of things,” “Think of self as a strong person”). Respondents rate their experiences in relation to each statement on a 5-point Likert-type scale ranging from 1 = *true nearly all of the time* to 5 = *not true at all*. A respondent’s total score can range from 0–40. The unidimensional brief version has shown acceptable psychometric properties across cultures

(Matsumoto et al., 2023; Mitchell et al., 2023; Notario-Pacheco et al., 2011; Wang et al., 2010). Internal consistency reliability in this sample was excellent ($\alpha = .91$).

Parent stress

The Depression Anxiety Stress Scale-21 (DASS-21) questionnaire is a widely used short version (21 item) of a 42-item self-report instrument designed to measure three related negative emotional states in clinical as well as general populations (Lovibond & Lovibond, 1995). So far, the DASS-21 is available in 42 languages and is widely accessible to clinicians and researchers. Individuals read each statement and select a number that indicates how much the statement applied to them over the past several weeks. The rating scale is as follows: 0 = *did not apply to me at all*; 1 = *applied to me to some degree, or some of the time*; 2 = *applied to me to a considerable degree, or a good part of time*; 3 = *applied to me very much, or most of the time*. The DASS-21 yields three subscale scores for depression (seven items), anxiety (seven items), and tension/stress (seven items). In a large nonclinical sample, the reliabilities of the DASS-21 anxiety, depression, and stress scales were estimated using Cronbach's alpha, yielding the following results: α was .88 (95% confidence interval [CI] [.87, .89]) for the depression scale, .82 (CI [.80, .83]) for the anxiety scale, and .90 (CI [.89, .91]) for the stress scale (J. D. Henry & Crawford, 2005). Examination of the psychometric properties and measurement invariance of the DASS-21 supports the applicability of the DASS-21 across cultures and groups (Bibi et al., 2020; Bottesi et al., 2015; Fox et al., 2018; Vaughan et al., 2020). The internal consistency, and convergent and divergent validity of the DASS-21 have been found to be similar across racial groups (Norton, 2007). The tension/stress scale was used in the present study as a measure of perceived stress and had a possible range of 0–21. Illustrative items include “I felt I was always nervous,” “I felt it was difficult to relax,” and “I felt restless.” Internal consistency reliability for the stress scale in the current sample was excellent ($\alpha = .91$), similar to what has been reported in prior studies.

Statistical approach

SPSS 28 was used to conduct all statistical analyses. Preliminary analyses included data screening for outliers and to confirm that continuous variables adhered to a normal distribution. Values for skewness and kurtosis as well as results of tests for normality (i.e., Shapiro–Wilk test) were examined following established guidelines to ensure that the continuous study variables adhered to a normal distribution (Tabachnick & Fidell, 2019). All values were within acceptable ranges to infer normality. The hypothesized moderated mediation model (see Figure 1) was tested in a single model using a bootstrapping approach to assess the significance of the indirect effects at differing levels of the moderator (Hayes, 2018a). Stressor pileup was the predictor variable, with family satisfaction and couple relationship satisfaction as the mediators. Including both family satisfaction and couple relationship satisfaction in the mediation model simultaneously (versus estimating separate models for each variable) yields estimates of the indirect and direct effects that are unique to each variable, addressing concerns regarding potential correlation between the mediators (Hayes & Rockwood, 2017). The outcome variable was parent stress symptoms, and parent resilience beliefs was the proposed moderator. Moderated mediation analyses test the conditional indirect effect of a moderating variable (i.e., resilience beliefs) on the relationship between a predictor (i.e., stressor pileup) and an outcome variable (i.e., stress) via potential mediators (i.e., family satisfaction and couple relationship satisfaction). The PROCESS macro (Model 14, Version 4; Hayes, 2018a) with bias-corrected 95% CIs was used to test the significance of the indirect (i.e., mediated) effects moderated by parent

resilience beliefs, that is, conditional indirect effects. This macro implements the recommended bootstrapping procedures and automatically computes post hoc probing for moderating effects. The model was estimated using 5,000 bootstrapped samples.

To evaluate moderated mediation, the significance of the conditional indirect effect was estimated at the 16th, 50th, and 84th values of the moderators. Confirmation of moderated mediation was based on the index of moderated mediation (Hayes, 2018b). Like traditional moderation analyses where a significant interaction suggests that the simple slopes are different from each other, a significant index of moderated mediation indicates that the moderator is linearly related to the indirect effect and implies that the conditional indirect effects defined by the two different values of the moderator are statistically different. Significance of the index of moderated mediation (i.e., evidence of moderation of the indirect effects of the relations between stressor pileup and parent stress by family satisfaction and couple relationship satisfaction) is established when the bootstrap confidence interval for the index of moderated mediation does not include zero. This interpretation of confidence intervals is different than how confidence intervals are used to interpret significance of odds ratios in logistic regression, where the null hypothesis is rejected when the 95% CIs do not include one.

RESULTS

Descriptive statistics for the main study variables were as follows: stressor pileup ($M = 2.7$, $SD = 1.6$, range 0–8), family satisfaction ($M = 34.9$, $SD = 10.47$, range 10–50), couple relationship satisfaction ($M = 47.0$, $SD = 11.6$, range 9–81), parent resilience beliefs ($M = 29.5$, $SD = 8.5$, range 0–40), and parent stress ($M = 8.9$, $SD = 6.2$, range 0–21). Stressor pileup was negatively associated with family satisfaction ($r = -.09$, $p < .001$), couple relationship satisfaction ($r = -.09$, $p < .001$), and positively associated with parent stress ($r = .38$, $p < .001$). Family satisfaction and couple relationship satisfaction were positively associated ($r = .31$, $p < .001$; Supplementary Table 2). Higher family satisfaction and higher couple relationship satisfaction were both associated with higher parent resilience beliefs ($r = .30$ and $.27$, $p < .001$), but lower perceived stress ($r = -.12$ and $-.20$, respectively, $p < .001$). A significant correlation was also found between resilience beliefs and stress. Specifically, lower parent resilience beliefs were associated with higher parent stress ($r = -.12$, $p < .001$). We used t tests to examine whether there were significant differences between males and females on any of the main study variables. Results revealed two significant group differences. First, male respondents scored higher on couple relationship satisfaction ($M = 45.9$ vs. 44.5 , $p = .006$). Second, males had a higher score on stressor pileup ($M = 2.2$ vs. 2.0 , $p < .001$). Gender was included as a covariate in the model along with age, education, race/ethnicity, and employment.

The hypothesized moderated mediation model was tested using the PROCESS macro (Model 14), which tests a model whereby parent resilience beliefs moderate the relations of family satisfaction and couple relationship satisfaction to parent stress (Figure 1; Hayes, 2017). Results of this analysis are presented in Table 1 and depicted visually in Figure 2. The direct association between family satisfaction and stress was moderated by parent resilience beliefs ($B = .0051$, $SE = .0015$, $p = .001$). Likewise, the direct association between couple relationship satisfaction and stress was moderated by parent resilience beliefs ($B = -.0045$, $SE = .0016$, $p = .0057$). Figure 3 presents a visual depiction of the interactions between family satisfaction and parent resilience beliefs (Plot A) and couple relationship satisfaction and parent resilience beliefs (Plot B). Plot A was constructed by estimating the simple effect of family satisfaction on parent stress scores for low, moderate, and high values of resilience beliefs. Similarly, Plot B was constructed by estimating the simple effect of couple relationship satisfaction on stress scores for the three levels of parent resilience beliefs.

TABLE 1 Regression results for hypothesized model of moderated mediation

	Consequent								
	M ₁ : Family satisfaction			M ₂ : Relationship satisfaction			Y: Psychological stress		
Antecedent	B	SE	p	B	SE	p	B	SE	p
Stressor pileup	−.9931	.2172	.0000	−.7610	.2498	.0024	1.5914	.1229	.0000
Family satisfaction (FS)	−	−	−	−	−	−	−.1510	.0444	.0007
Couple relationship satisfaction (CRS)	−	−	−	−	−	−	.0343	.0426	.4203
Resilience beliefs (RES)	−	−	−	−	−	−	.0020	.0828	.9806
FS × RES	−	−	−	−	−	−	.0051	.0015	.0010
CRS × RES	−	−	−	−	−	−	−.0045	.0016	.0057
	<i>R</i> ² = .1116			<i>R</i> ² = .0506			<i>R</i> ² = .2090		
	<i>F</i> (12,1373) = 14.3793 ^{****}			<i>F</i> (12,1373) = 6.0922 ^{****}			<i>F</i> (17,1368) = 21.2595 ^{****}		
	Conditional indirect effects at three levels of the moderator								
	Effect		<i>SE</i>	LL 95% CI		UL 95% CI	Index of moderated mediation		
Family satisfaction							−.0050, CI [−.0096, −.0015]		
Low RES	.0592	.0259		.0152	.1163				
Medium	.0138	.0184		−.0193	.0536				
High RES	−.0316	.0269		−.0864	.0195				
Couple relationship satisfaction							.0034, CI [.0006, .0074]		
Low RES	.0349	.0174		.0049	.0724				
Medium RES	.0654	.0236		.0224	.1149				
High RES	.0959	.0365		.0318	.1750				

Note. CI = confidence interval; LL = lower limit; UL = upper limit. Unstandardized regression coefficients reported. Age, gender, educational attainment, race/ethnicity, and employment status were included as covariates. Bootstrap sample = 5,000.
**** $p < .0001$.

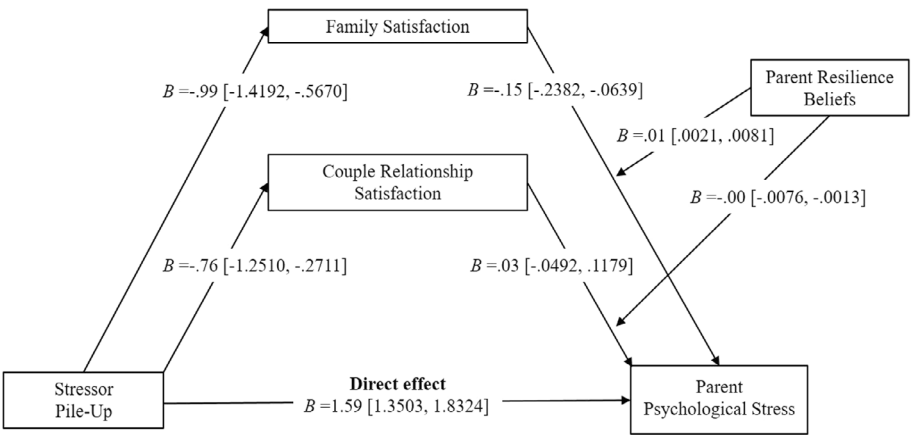


FIGURE 2 Statistical model

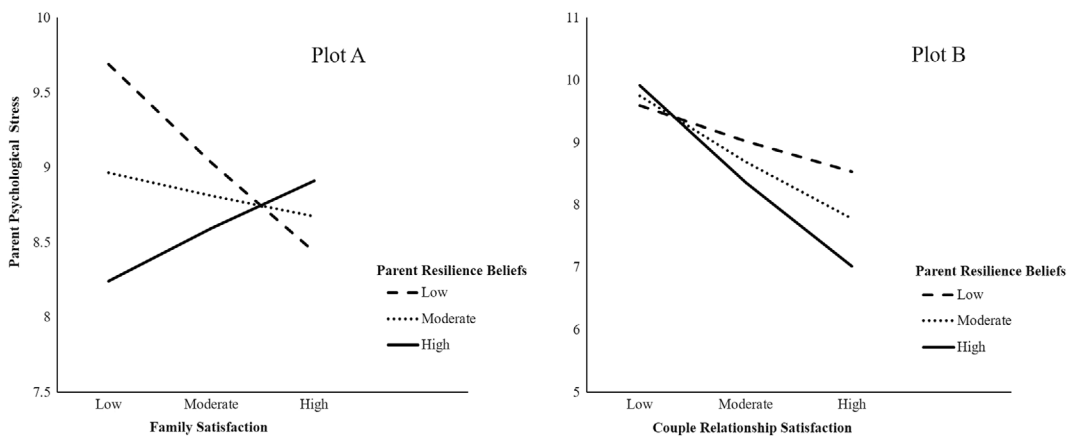


FIGURE 3 Conditional direct effects of family satisfaction and couple relationship satisfaction on stress at three levels of parent resilience beliefs

As shown in Figure 3 Plot A, family satisfaction was negatively associated with stress for parents with low and moderate levels of resilience beliefs, such that as family satisfaction increased, parent stress decreased. However, there was a positive association between family satisfaction and stress for individuals with high levels of resilience beliefs. For these individuals, higher family satisfaction was associated with increased stress. As depicted by the steepness of the slopes, the negative relation between family satisfaction and parent stress among individuals with low resilience beliefs was largest in magnitude among with individuals with low resilience beliefs. Figure 3 Plot B illustrates that resilience beliefs moderated the association between couple relationship satisfaction and parent stress. Here, results revealed that couple relationship satisfaction was negatively associated with stress at both medium and high levels of resilience beliefs, with the strongest association for parents with high resilience beliefs.

A formal test of moderated mediation based on the index term revealed that parent resilience beliefs moderated the indirect effect of stressor pileup on parent stress through both family satisfaction (index = $-.0050$, 95% CI [$-.0096$, $-.0015$]) and couple relationship satisfaction (index = $.0034$, CI [$.0006$, $.0074$]). Further hypothesis tests were conducted to determine whether the conditional indirect effect was statistically significant at values corresponding to low (18), moderate (27), and high (36) values of resilience beliefs. PROCESS automatically generates these conditional indirect effects at moderator values corresponding to the 16th, 50th, and 84th percentile points in the sample data. Family satisfaction mediated the association between stressor pileup and stress for individuals with low resilience beliefs (effect = $-.0596$, CI [$-.1008$, $-.0184$]), but there was no evidence that family satisfaction mediated the association between stressor pileup and stress for individuals with moderate (effect = $-.0139$, CI [$-.0453$, $.0175$]) or high (effect = $.0318$, CI [$-.0100$, $.0737$]) resilience beliefs. Couple relationship satisfaction mediated the association between stressor pileup and stress across all levels of resilience beliefs, as follows: low resilience beliefs effect = $-.0458$, CI [$-.0809$, $-.0107$]; moderate resilience beliefs effect = $-.0859$, CI [$-.1139$, $-.0580$]; and high resilience beliefs (effect = $-.1260$, CI [$-.1702$, $-.0819$]).

DISCUSSION

More than 3 years have elapsed since the first cases of the novel coronavirus were documented. Significant declines in the incidence of new cases have permitted a return to normalcy for many

U.S. families; however, the long-term economic, social, physical health, and mental health impacts of the pandemic remain to be determined (Coker et al., 2023). The purpose of this study was to investigate U.S. parents' experience of stress during the early phases of the COVID-19 pandemic within the ABC-X conceptual framework (Figure 1). We conceptualized family satisfaction and couple relationship satisfaction as adaptive resources, or B factors, that influence the relationship between parents' experience of COVID-19-related stressors and their experience of stress. Parent resilience beliefs were included in the model as a C factor (i.e., evaluations of stressors and likely impacts) that may interact with relationship satisfaction to jointly determine parents' stress (Rosino, 2016). A moderated mediation analytic approach was used to test the conditional indirect effects theorized in the ABC-X conceptual framework among stressor pileup, adaptive resources, perception and coherence factors, and adaptive outcomes (Hayes & Rockwood, 2017).

Prior research utilizing the ABC-X model has shown that stressor pileup is associated with parent mental health in families via family and relationship functioning (Boettcher et al., 2021; Frishman et al., 2017; Manning et al., 2011). The results presented here extend these findings by demonstrating that the indirect effects of family and couple relationship satisfaction are impacted by the way parents think about their responses to COVID-related stressors. This finding is also consistent with perspectives on positive adaptation offered by Walsh (2020), who highlighted the stress buffering effects of resilience beliefs. Depicted in Figure 1, we hypothesized a second-stage moderated mediation model in which parent resilience beliefs moderated the indirect paths through family satisfaction and couple relationship satisfaction, producing conditional indirect effects. This hypothesis was largely supported.

In this study, the direct associations of family satisfaction and couple relationship satisfaction to parent stress were both moderated by parent resilience beliefs. As shown in Figure 3 Plot B, parents experienced less stress when they had a more positive and supportive couple relationship regardless of their level of confidence in their ability to withstand challenging experiences. However, the benefit of high couple relationship satisfaction was the greatest for parents with high levels of resilience beliefs. These parents reported the lowest levels of stress when couple relationship satisfaction was high, compared to parents with moderate or low levels of resilience beliefs. Thus, our results suggest that resilience beliefs buffered parents from stress in the context of reduced couple relationship satisfaction during the early phase of the COVID-19 pandemic. This finding is consistent with prior research highlighting the protective effects of resilience beliefs (Walsh, 2020). Interventions that seek to enhance resilience beliefs and prevent stress-related symptomology may be useful for promoting individuals' well-being during the pandemic recovery, especially for people experiencing difficulties in their romantic relationship. Such interventions are the focus of the third wave of resilience research and have growing support for their effectiveness (Chmitorz et al., 2018).

A different pattern of associations was found when examining the interaction between family satisfaction and parent resiliency beliefs. As shown in Figure 3 Plot A, parents with low or moderate levels of resilience beliefs experienced less stress when they were more satisfied with their family relationships. However, parents with high resilience beliefs experienced more stress when they had high levels of family satisfaction. One possible explanation is that parents with greater family satisfaction (i.e., better family functioning) and higher resilience beliefs felt intense pressure to ensure that they and their children coped well during the early phases of the COVID-19 pandemic, despite facing extraordinary and unprecedented stressors affecting family organization and social connectedness. Internal and external pressures to not just survive, but thrive, during the early phases of the pandemic may have created more stress for parents with high resiliency beliefs. In contrast, individuals with lower resilience beliefs may have had more realistic expectations, resulting in less stress for parents who were otherwise satisfied with their family relationships and functioning. Although additional research is needed to investigate this possibility, a recent study examining parents' lived experiences during the pandemic provides

some support for the idea that letting go of expectations for positive adaption may have helped some parents cope better with challenging situational realities (Weaver & Swank, 2021). Thus, factors such as self-compassion and psychological flexibility (Coyne et al., 2021) may be more important to foster than resiliency beliefs in disaster contexts.

An alternative explanation is suggested by the systematic self-reflection model of resilience strengthening (Crane et al., 2019). A central premise of this model is that some individuals develop a greater capacity for positive adaptation through exposure to stressors, because the stress experience becomes a trigger for systemic self-reflection. Through self-reflection, individuals become more aware of their thoughts, feelings, and behaviors. Insights gained through self-reflection lead individuals to engage coping resources (social, cognitive, motivational, practical skills), which foster resilient outcomes. This model provides an alternative interpretation for the unexpected positive association between family satisfaction and stress for parents with high levels of resilience beliefs.

Given the cross-sectional study design, we can conceptualize parent stress as interacting with resilience beliefs to predict family satisfaction (rather than specifying parent stress as the outcome). For parents with high resilience beliefs, heightened stress during the COVID-19 pandemic may have triggered a process of self-reflection, which motivated them to engage in positive coping strategies. Coping strategies used by parents during COVID-19 included leveraging social relationships for emotional support, using effective communication skills, and connecting with family members to problem-solve challenges (Fogel et al., 2022). In turn, these strategies may underlie increased family satisfaction and family well-being (Prime et al., 2020). In contrast, for parents with low resilience beliefs, heightened stress may not translate into adaptive coping responses, consequently resulting in diminished family satisfaction. Although this explanation is only speculative in its application to the present cross-sectional study, the potential role of self-reflection merits empirical investigation in prospective studies.

Next, we examined the index of moderated mediation to formally test our central hypothesis regarding conditional indirect effects. Based on the extant literature and our interpretation of the ABC-X theoretical framework, we proposed that parents who experienced a greater pileup of stressful life events early in the COVID-19 pandemic would have higher stress symptoms in part because stressor pileup has a negative impact on family and couple relationship satisfaction, which in turn may result in increased parent stress. However, we anticipated that the effect of stressor pileup on parent stress through family and couple relationship satisfaction would be stronger when parents have less confidence in their ability to withstand challenges (i.e., low resilience beliefs). This hypothesis was partially supported. As hypothesized, family satisfaction mediated the association between stressor pileup and stress for parents with low resilience beliefs, but not for parents with moderate or high levels of resilience beliefs. This suggests that stressor pileup is not associated with family satisfaction when parents feel confident in their ability to manage adversity, and consequently, the pileup of stressors has minimal impact on their stress symptoms. However, when stressor pileup occurs for parents who have low confidence in their ability to deal with challenging circumstances, it is negatively associated with family satisfaction, which in turn is related to parent stress. For example, our findings suggest that interventions to improve family satisfaction may be most impactful for parents with low confidence in their ability to adapt to change and bounce back from adversity.

In contrast, the mechanisms linking stressor pileup with parent stress did not differ in a systematic way based on parents' beliefs in their ability to manage adversity when couple relationship satisfaction served as the mediator. The pileup of more stressors was associated with lower couple relationship satisfaction and, in turn, higher stress for parents with low, moderate, and high resilience beliefs. Although contrary to our expectation, this result is consistent with the vast literature documenting a powerful explanatory role for relationship satisfaction in the association between stress and mental health in general (Braithwaite & Holt-Lunstad, 2017), and builds on recent studies finding links between couple relationship satisfaction and partners'

mental health during the COVID-19 pandemic (Turliuc & Candel, 2021; Williamson, 2020). These findings underscore the value of conducting comprehensive assessments that include family members' beliefs and strategies related to facing adversity as well as typical evaluations of family relationship functioning. Information gleaned from this type of assessment can help practitioners strategically intervene with families. The current research implies that programs and interventions that aim to enhance couple satisfaction are applicable to parents with all levels of resilience beliefs, not just limited to parents having low confidence to recover from adversities.

Limitations and future directions

The cross-sectional design of the current study prohibits inference of causal relationships between the variables examined. Continuing to monitor and study the potential effects of the COVID-19 endemic using prospective longitudinal study designs is critical to fully understand the relations between pandemic stressors, family relationships, and mental health outcomes over time, as well as to inform the development of interventions to prevent or mitigate negative effects. In addition, convenience sampling with self-report questionnaires was utilized to effectively gather a large amount of data in a short period of time. The challenges presented by online survey methods used during the pandemic have recently been described, including external validity concerns as well as biases including selection bias (individuals who volunteered to participate in the study may be different from people who opted not to participate), recall bias, and social desirability bias (Singh & Sagar, 2021).

Although the current sample was large, it was not representative of the U.S. population based on 2020 Census data. Specifically, we had overrepresentation of people identifying as White (70% of sample vs. 57.8% of population) and underrepresentation of people identifying as Hispanic (14.1% of sample vs. 18.7% of population) and Black (8.9% of sample vs. 12.1% of population; Jensen et al., 2021). The cultural diversity present across and within the United States calls for accurate representation of the population in future studies to improve the generalizability of findings to marginalized groups. Cross-cultural studies that better represent Indigenous populations and the identities that exist across and within ethnic groups are needed to explore the influence of cultural context and religion on the associations among stress, family relational well-being, and resilience beliefs. Additionally, future work should consider how experiences of marginalization, discrimination, and lack of access to resources that foster well-being relate to participants' perspectives on their resilience. Such work should also consider the measurement equivalence of commonly used questionnaires across groups (van Dijk et al., 2022). Statistical tests of measurement equivalence could not be conducted in the current study sample due to the small number of participants within the groups, thus, caution in interpreting findings is warranted.

Several limitations pertain to the measurement of our predictor variables with respect to the ABC-X framework. First, we relied on a simple additive measure of stressor pileup, but acknowledge that stressors experienced by parents during the COVID-19 pandemic are not equal in their impact for all families. Studies that examine the relative impact of various stressors would be informative in identifying parents who may be most at risk for negative outcomes. Second, we assessed perceptions of only one member of each couple or family. Studies examining family stress and adaptation would benefit from sampling multiple members of each family. Diversity in family structure is also not addressed. For example, we did not collect information on the couple relationships with respect to the parenting role(s) within the family.

Finally, as conceptualized in the ABC-X model, C represents the family's evaluation or perception of the stress-triggering events. The Conner-Davidson Resilience Scale used in the study targets perceptions of individuals' abilities to cope with challenging experiences, rather than the

evaluation of the stressor. Moreover, measurement of this construct on solely the individual level might not accurately capture experiences of individuals deeply embedded in family units.

Practical implications

The COVID-19 pandemic yields many lessons learned from the widespread experiences of stress and resilience that families faced when striving to balance family and work roles amid fear and anxiety related to the spread of a novel virus. Long-term consequences of this challenge, such as the impacts of economic hardship and other stressors on couple relationships, family conflict, and mental health of parents and their children, are still evolving. However, findings from this study and others provide implications for practitioners seeking to promote family flourishing during times of stability as well as upheaval. First, it is important to recognize that experiencing major stressors is likely to increase negative processes in relationships, including hostility, withdrawal, and less responsive support (Andrade et al., 2022). In the present study, stressor pileup was associated with lower couple relationship satisfaction and, in turn, higher stress for parents. This highlights the importance of universal skill-building prevention programs designed to create strong couple relationships prior to the onset of stressors so that healthy relationships are sustained during times of adversity. The National Extension Relationship and Marriage Education Network (<https://www.fcs.uga.edu/nermen>) offers evidence-based resources to guide practitioners in the implementation of quality educational programming to enrich couple and marital relationships by teaching core principles and skills central to healthy relationships (e.g., care, connection, sharing). These types of educational programs have wide applicability for universal prevention. Sustaining evidence-based programming requires sufficient funding and legislative support. For example, increased funding for universal programs that support multiple facets of family well-being is essential to expand availability of such programming so that more parents and families can benefit.

Strengthening individual-level resilience factors, such as realistic optimism, self-esteem, and cognitive flexibility, can have a positive effect on psychological well-being in general, and may be especially important for parents experiencing problems in their romantic partnerships. For example, findings from the current study suggest that building parents' positive expectations related to their ability to cope with the adversities they are facing may help to buffer parents with low couple relationship satisfaction from experiencing increased psychological stress when facing multiple stressors. Thus, clinicians and therapists working with couples are advised to adopt a holistic assessment process that identifies their clients' existing strengths as well as opportunities to build skills to promote resilience.

Parents can foster qualities that promote resilience to stress in themselves and their children by adopting practices informed by positive psychology principles and cognitive behavioral therapy and mindfulness strategies, which are key components of effective resilience-building interventions (Kunzler et al., 2020). Mindfulness, spirituality, physical activities, and service to others are strategies that can protect parents from the negative impact of life stressors and foster psychological resilience by building hope, happiness, and health. Simple research-based practices that incorporate some of these approaches can be found on the University of California–Berkeley's Greater Good Science Center website (<https://ggsc.berkeley.edu/>). An example is the Gaining Perspective on Negative Events exercise. This cognitive exercise takes approximately 5 minutes to complete and is recommended to use when individuals find themselves ruminating on a negative experience. Through a series of four steps, individuals are directed to identify a difficult experience, consider the experience as an observer might (rather than through their personal experience), analyze their feelings in an objective way, and use self-talk to confront difficult feelings.

Conclusions

Positive attributes of this study included the use of an analytic approach that considered two mediators and one moderator simultaneously, our large cohort of parents ($n = 1,386$) from the U.S. sample of the internet-based Covid Family Life Study survey who indicated they were married or living with a romantic partner, and the use of well-validated questionnaire measures. This work contributes to a growing literature investigating stress, family relationships, and resilience during COVID-19. A contribution of this study is that we considered two aspects of family relational well-being—one global and one specific to an important family subsystem. Our results highlight an explanatory role for couple relationship satisfaction in understanding the link between pandemic stressors and parent stress. An important direction for future research is the potential negative impact of resiliency beliefs on stress for some parents. Such work should consider additional risk and protective factors, such as self-compassion, that affect parental well-being.

ORCID

Anis Ben Brik  <https://orcid.org/0000-0002-5409-4693>

Natalie A. Williams  <https://orcid.org/0000-0002-3208-1672>

REFERENCES

- Agate, J. R., Zabriskie, R. B., Agate, S. T., & Poff, R. (2009). Family leisure satisfaction and satisfaction with family life. *Journal of Leisure Research*, 41(2), 205–223. <https://doi.org/10.1080/00222216.2009.11950166>
- Ahuja, K. K., & Khurana, D. (2021). Locked-down love: A study of intimate relationships before and after the COVID lockdown. *Family Relations*, 70(5), 1343–1357. <https://doi.org/10.1111/fare.12582>
- Alzueta, E., Perrin, P., Baker, F. C., Caffarra, S., Ramos-Usuga, D., Yuksel, D., & Arango-Lasprilla, J. C. (2021). How the COVID-19 pandemic has changed our lives: A study of psychological correlates across 59 countries. *Journal of Clinical Psychology*, 77(3), 556–570. <https://doi.org/10.1002/jclp.23082>
- Andrade, C., Gillen, M., Molina, J. A., & Wilmarth, M. J. (2022). The social and economic impact of Covid-19 on family functioning and well-being: Where do we go from here? *Journal of Family and Economic Issues*, 43(2), 205–212. <https://doi.org/10.1007/s10834-022-09848-x>
- Avena, N. M., Simkus, J., Lewandowski, A., Gold, M. S., & Potenza, M. N. (2021). Substance use disorders and behavioral addictions during the COVID-19 pandemic and COVID-19-related restrictions. *Frontiers in Psychiatry*, 12, Article 653674. <https://doi.org/10.3389/fpsy.2021.653674>
- Bartik, A. W., Bertrand, M., Lin, F., Rothstein, J., & Unrath, M. (2020). Measuring the labor market at the onset of the COVID-19 crisis. *Brookings Papers on Economic Activity*, 2020(2), 239–268. <https://doi.org/10.1353/eca.2020.0010>
- Ben Brik, A. (2020). International study on the impact of COVID 19 on family life across cultures. *PsyArXiv*. <https://doi.org/10.31234/osf.io/gcqhph>
- Bibi, A., Lin, M., Zhang, X. C., & Margraf, J. (2020). Psychometric properties and measurement invariance of Depression, Anxiety and Stress Scales (DASS-21) across cultures. *International Journal of Psychology*, 55(6), 916–925. <https://doi.org/10.1002/ijop.12671>
- Bodenmann, G., Ledermann, T., & Bradbury, T. N. (2007). Stress, sex, and satisfaction in marriage. *Personal Relationships*, 14(4), 551–569. <https://doi.org/10.1111/j.1475-6811.2007.00171.x>
- Boettcher, J., Zapf, H., Fuerboeter, M., Nazarian, R., Reinshagen, K., Wiegand-Grefe, S., & Boettcher, M. (2021). Perceived mental health in parents of children with rare congenital surgical diseases: A double ABCX model considering gender. *Orphanet Journal of Rare Diseases*, 16(1), 384. <https://doi.org/10.1186/s13023-021-01998-9>
- Bottesi, G., Ghisi, M., Altoè, G., Conforti, E., Melli, G., & Sica, C. (2015). The Italian version of the Depression Anxiety Stress Scales-21: Factor structure and psychometric properties on community and clinical samples. *Comprehensive Psychiatry*, 60, 170–181. <https://doi.org/10.1016/j.comppsy.2015.04.005>
- Braithwaite, S., & Holt-Lunstad, J. (2017). Romantic relationships and mental health. *Current Opinion in Psychology*, 13, 120–125. <https://doi.org/10.1016/j.copsyc.2016.04.001>
- Brooks, S. K., Webster, R. K., Smith, L. E., Woodland, L., Wessely, S., Greenberg, N., & Rubin, G. J. (2020). The psychological impact of quarantine and how to reduce it: Rapid review of the evidence. *The Lancet*, 395(10227), 912–920. [https://doi.org/10.1016/S0140-6736\(20\)30460-8](https://doi.org/10.1016/S0140-6736(20)30460-8)

- Brown, S. M., Doom, J. R., Lechuga-Peña, S., Watamura, S. E., & Koppels, T. (2020). Stress and parenting during the global COVID-19 pandemic. *Child Abuse & Neglect*, 110(Pt 2), Article 104699. <https://doi.org/10.1016/j.chiabu.2020.104699>
- Campbell-Sills, L., & Stein, M. B. (2007). Psychometric analysis and refinement of the Connor–Davidson Resilience Scale (CD-RISC): Validation of a 10-item measure of resilience. *Journal of Traumatic Stress*, 20(6), 1019–1028. <https://doi.org/10.1002/jts.20271>
- Childress, S., Roberts, A., LaBrenz, C. A., Findley, E., Ekueku, M., & Baiden, P. (2023). Exploring the lived experiences of women with children during COVID-19: Maternal stress and coping mechanisms. *Children and Youth Services Review*, 145, Article 106775. <https://doi.org/10.1016/j.childyouth.2022.106775>
- Chmitorz, A., Kunzler, A., Helmreich, I., Tüscher, O., Kalisch, R., Kubiak, T., Wessa, M., & Lieb, K. (2018). Intervention studies to foster resilience – A systematic review and proposal for a resilience framework in future intervention studies. *Clinical Psychology Review*, 59, 78–100. <https://doi.org/10.1016/j.cpr.2017.11.002>
- Connor, K. M., & Davidson, J. R. T. (2003). Development of a new resilience scale: The Connor-Davidson Resilience Scale (CD-RISC). *Depression and Anxiety*, 18(2), 76–82. <https://doi.org/10.1002/da.10113>
- Coker, T. R., Gootman, J. A., & Backes, E. P. (Eds.). (2023). Addressing the long-term effects of the COVID-19 pandemic on children and families. *National Academies Press*. <https://doi.org/10.17226/26809>
- Coyne, L. W., Gould, E. R., Grimaldi, M., Wilson, K. G., Baffuto, G., & Biglan, A. (2021). First things first: Parent psychological flexibility and self-compassion during COVID-19. *Behavior Analysis in Practice*, 14(4), 1092–1098. <https://doi.org/10.1007/s40617-020-00435-w>
- Crane, M. F., Searle, B. J., Kangas, M., & Nwiran, Y. (2019). How resilience is strengthened by exposure to stressors: The systematic self-reflection model of resilience strengthening. *Anxiety, Stress, & Coping*, 32(1), 1–17. <https://doi.org/10.1080/10615806.2018.1506640>
- Feinberg, M. E., Mogle, J. A., Lee, J.-K., Tornello, S. L., Hostetler, M. L., Cifelli, J. A., Bai, S., & Hotez, E. (2022). Impact of the COVID-19 pandemic on parent, child, and family functioning. *Family Process*, 61(1), 361–374. <https://doi.org/10.1111/famp.12649>
- Ferrão, L. F., Andrade, A. L. D., & da Silva, F. C. (2019). ENRICH scale for conjugal satisfaction: Adaptation and initial psychometric evidence in Brazil. *Revista Psicologia em Pesquisa*, 13(2), 128–146. <https://doi.org/10.34019/1982-1247.2019.v13.26089>
- Fogel, Y., Sela, Y., & Hen-Herbst, L. (2022). Coping strategies of families and their relationships with family quality of life during Covid-19 pandemic. *PLoS ONE*, 17(9), Article e0273721. <https://doi.org/10.1371/journal.pone.0273721>
- Fowers, B. J., & Olson, D. H. (1993). ENRICH Marital Satisfaction Scale: A brief research and clinical tool. *Journal of Family Psychology*, 7(2), 176–185. <https://doi.org/10.1037/0893-3200.7.2.176>
- Fox, R. S., Lillis, T. A., Gerhart, J., Hoerger, M., & Duberstein, P. (2018). Multiple group confirmatory factor analysis of the DASS-21 Depression and Anxiety Scales: How do they perform in a cancer sample? *Psychological Reports*, 121(3), 548–565. <https://doi.org/10.1177/0033294117727747>
- Frishman, N., Conway, K. C., Andrews, J., Oleson, J., Mathews, K., Cialfoni, E., Oleszek, J., Lamb, M., Matthews, D., Paramsothy, P., McKirgan, L., & Romitti, P. (2017). Perceived quality of life among caregivers of children with a childhood-onset dystrophinopathy: A double ABCX model of caregiver stressors and perceived resources. *Health and Quality of Life Outcomes*, 15(1), Article 33. <https://doi.org/10.1186/s12955-017-0612-1>
- Garbe, A., Ogurlu, U., Logan, N., & Cook, P. (2020). COVID-19 and remote learning: Experiences of parents with children during the pandemic. *American Journal of Qualitative Research*, 4(3), 45–65. <https://doi.org/10.29333/ajqr/8471>
- Gassman-Pines, A., Ananat, E. O., & Fitz-Henley, J., II. (2020). COVID-19 and parent-child psychological well-being. *Pediatrics*, 146(4), Article e2020007294. <https://doi.org/10.1542/peds.2020-007294>
- Goldfarb, M. R., & Trudel, G. (2019). Marital quality and depression: A review. *Marriage & Family Review*, 55(8), 737–763. <https://doi.org/10.1080/01494929.2019.1610136>
- Guerrero-Muñoz, D., Salazar, D., Constain, V., Perez, A., Pineda-Cañar, C. A., & García-Perdomo, H. A. (2021). Association between family functionality and depression: A systematic review and meta-analysis. *Korean Journal of Family Medicine*, 42(2), 172–180. <https://doi.org/10.4082/kjfm.19.0166>
- Günther-Bel, C., Vilaregut, A., Carratala, E., Torras-Garat, S., & Pérez-Testor, C. (2020). A Mixed-method study of individual, couple, and parental functioning during the state-regulated COVID-19 lockdown in Spain. *Family Process*, 59(3), 1060–1079. <https://doi.org/10.1111/famp.12585>
- Habibi, M., Mazaheri, M. A., Dehghani, S., & Ashori, A. (2015). Measurement model and psychometric properties of Family Communication Scale (FCS) and Family Satisfaction Scale (FSS) in Iranian families. *Journal of Family Research*, 10(3), 313–329.
- Hayes, A. F. (2018a). *Introduction to mediation, moderation, and conditional process analysis* (2nd ed.). Guilford Press.
- Hayes, A. F. (2018b). Partial, conditional, and moderated mediation: Quantification, inference, and interpretation. *Communication Monographs*, 85(1), 4–40. <https://doi.org/10.1080/03637751.2017.1352100>
- Hayes, A. F., & Rockwood, N. J. (2017). Regression-based statistical mediation and moderation analysis in clinical research: Observations, recommendations, and implementation. *Behaviour Research and Therapy*, 98, 39–57. <https://doi.org/10.1016/j.brat.2016.11.001>

- Henry, C. S., Sheffield Morris, A., & Harrist, A. W. (2015). Family resilience: Moving into the third wave. *Family Relations*, 64(1), 22–43. <https://doi.org/10.1111/fare.12106>
- Henry, J. D., & Crawford, J. R. (2005). The short-form version of the Depression Anxiety Stress Scales (DASS-21): Construct validity and normative data in a large non-clinical sample. *British Journal of Clinical Psychology*, 44(2), 227–239. <https://doi.org/10.1348/014466505X29657>
- Hussong, A. M., Midgette, A. J., Richards, A. N., Petrie, R. C., Coffman, J. L., & Thomas, T. E. (2022). COVID-19 life events spill-over on family functioning and adolescent adjustment. *Journal of Early Adolescence*, 42(3), 359–388. <https://doi.org/10.1177/02724316211036744>
- Işık, R. A., & Kaya, Y. (2022). The relationships among perceived stress, conflict resolution styles, spousal support and marital satisfaction during the COVID-19 quarantine. *Current Psychology*, 41(6), 3328–3338. <https://doi.org/10.1007/s12144-022-02737-4>
- Jensen, E., Jones, N., Rabe, M., Pratt, B., Medina, L., Orozco, K., & Spell, L. (2021). *The chance that two people chosen at random are of different race or ethnicity groups has increased since 2010*. U.S. Census Bureau. <https://www.census.gov/library/stories/2021/08/2020-united-states-population-more-racially-ethnically-diverse-than-2010.html>
- Kira, I. A., Shuwiekh, H. A. M., Ashby, J. S., Rice, K. G., & Alhuwailah, A. (2021). Measuring COVID-19 stressors and their impact: The second-order factor model and its four first-order factors: Infection fears, economic, grief, and lockdown stressors. *Journal of Loss and Trauma*, 26(8), 733–751. <https://doi.org/10.1080/15325024.2021.1920270>
- Kochhar, R., & Bennett, J. (2021, April 14). *U.S. labor market inches back from the COVID-19 shock, but recovery is far from complete*. Pew Research Center. <https://www.pewresearch.org/short-reads/2021/04/14/u-s-labor-market-inches-back-from-the-covid-19-shock-but-recovery-is-far-from-complete/>
- Kunzler, A. M., Helmreich, I., Chmitorz, A., König, J., Binder, H., Wessa, M., & Lieb, K. (2020). Psychological interventions to foster resilience in healthcare professionals. *The Cochrane Database of Systematic Reviews*, 2020(7), Article CD012527. <https://doi.org/10.1002/14651858.CD012527.pub2>
- Lewis, R. K., Martin, P. P., & Guzman, B. L. (2022). COVID-19 and vulnerable populations. *Journal of Community Psychology*, 50(6), 2537–2541. <https://doi.org/10.1002/jcop.22880>
- Lotzin, A., Ketelsen, R., Zrnica, I., Lueger-Schuster, B., Böttche, M., & Schäfer, I. (2022). The Pandemic Stressor Scale: Factorial validity and reliability of a measure of stressors during a pandemic. *BMC Psychology*, 10(1), Article 92. <https://doi.org/10.1186/s40359-022-00790-z>
- Lovibond, S. H., & Lovibond, P. F. (1995). *Manual for the Depression Anxiety Stress Scales* (2nd ed.). Psychology Foundation of Australia.
- Manning, M. M., Wainwright, L., & Bennett, J. (2011). The double ABCX model of adaptation in racially diverse families with a school-age child with autism. *Journal of Autism and Developmental Disorders*, 41(3), 320–331. <https://doi.org/10.1007/s10803-010-1056-1>
- Masten, A. S. (2018). Resilience theory and research on children and families: Past, present, and promise. *Journal of Family Theory & Review*, 10(1), 12–31. <https://doi.org/10.1111/jftr.12255>
- Matsumoto, N., Kuroda, Y., Sugimoto, T., Fujita, K., Uchida, K., Kishino, Y., Arai, H., & Sakurai, T. (2023). Factors associated with changes in psychological resilience of older adults with mild cognitive impairment during the COVID-19 pandemic. *Frontiers in Aging Neuroscience*, 15, Article 1169891. <https://doi.org/10.3389/fnagi.2023.1169891>
- McCubbin, H. I., & Patterson, J. M. (1983). The family stress process. *Marriage & Family Review*, 6(1–2), 7–37. https://doi.org/10.1300/J002v06n01_02
- Mikolajczak, M., Gross, J. J., & Roskam, I. (2019). Parental burnout: What is it, and why does it matter? *Clinical Psychological Science*, 7(6), 1319–1329. <https://doi.org/10.1177/2167702619858430>
- Mitchell, N. A., McCauley, M., O'Brien, D., & Wilson, C. E. (2023). Mental health and resilience in the Irish defense forces during the COVID-19 global pandemic. *Military Psychology*, 35(5), 383–393. <https://doi.org/10.1080/08995605.2021.2007728>
- Najmi, B., Heidari, Z., Feizi, A., Hovsepian, S., Momeni, F., & Azhar, S. M. M. (2018). Do psychological characteristics of mothers predict parenting stress? A cross-sectional study among mothers of children with different disabilities. *Archives of Psychiatric Nursing*, 32(3), 396–402. <https://doi.org/10.1016/j.apnu.2017.12.004>
- Neff, L. A., & Karney, B. R. (2017). Acknowledging the elephant in the room: How stressful environmental contexts shape relationship dynamics. *Current Opinion in Psychology*, 13, 107–110. <https://doi.org/10.1016/j.copsyc.2016.05.013>
- Norton, P. J. (2007). Depression Anxiety and Stress Scales (DASS-21): Psychometric analysis across four racial groups. *Anxiety, Stress, and Coping*, 20(3), 253–265. <https://doi.org/10.1080/10615800701309279>
- Notario-Pacheco, B., Solera-Martínez, M., Serrano-Parra, M. D., Bartolomé-Gutiérrez, R., García-Campayo, J., & Martínez-Vizcaino, V. (2011). Reliability and validity of the Spanish version of the 10-item Connor-Davidson Resilience Scale (10-item CD-RISC) in young adults. *Health and Quality of Life Outcomes*, 9(1), Article 63. <https://doi.org/10.1186/1477-7525-9-63>
- O'Connor, D. B., Thayer, J. F., & Vedhara, K. (2021). Stress and health: A review of psychobiological processes. *Annual Review of Psychology*, 72, 663–688. <https://doi.org/10.1146/annurev-psych-062520-122331>

- Olson, D. (2011). FACES IV and the Circumplex Model: Validation study. *Journal of Marital and Family Therapy*, 37(1), 64–80. <https://doi.org/10.1111/j.1752-0606.2009.00175.x>
- Olson, D. H., & Wilson, M. (1982). Family satisfaction. In D. Olson, H. McCubbin, H. Barnes, A. Larsen, M. Muxen, & M. Wilson (Eds.), *Family inventories: Inventories used in a national survey of families across the family life cycle. Family social science* (pp. 25–31). University of Minnesota.
- Pandya, S. P. (2019). Marital satisfaction of highly qualified professionally achieving women post-retirement: The urban Indian scenario. *Journal of Family Studies*, 25(1), 61–78. <https://doi.org/10.1080/13229400.2016.1194307>
- Park, C. L. (2016). Meaning making in the context of disasters. *Journal of Clinical Psychology*, 72(12), 1234–1246. <https://doi.org/10.1002/jclp.22270>
- Parsons, S., Kruijt, A.-W., & Fox, E. (2016). A cognitive model of psychological resilience. *Journal of Experimental Psychopathology*, 7(3), 296–310. <https://doi.org/10.5127/jep.053415>
- Perez-Brena, N. J., Duncan, J. C., Bámaca, M. Y., & Perez, R. (2022). Progress and gaps: A systematic review of the family demographics and family subsystems represented in top family science journals 2008–2018. *Journal of Family Theory & Review*, 14(1), 59–78. <https://doi.org/10.1111/jftr.12446>
- Pietromonaco, P. R., & Overall, N. C. (2021). Applying relationship science to evaluate how the COVID-19 pandemic may impact couples' relationships. *American Psychologist*, 76(3), 438–450. <https://doi.org/10.1037/amp0000714>
- Prime, H., Wade, M., & Browne, D. T. (2020). Risk and resilience in family well-being during the COVID-19 pandemic. *American Psychologist*, 75(5), 631–643. <https://doi.org/10.1037/amp0000660>
- Roberson, P. N. E., Norona, J. C., Lenger, K. A., & Olmstead, S. B. (2018). How do relationship Stability and quality affect wellbeing?: Romantic relationship trajectories, depressive symptoms, and life satisfaction across 30 years. *Journal of Child and Family Studies*, 27(7), 2171–2184. <https://doi.org/10.1007/s10826-018-1052-1>
- Robles, T. F. (2014). Marital quality and health: Implications for marriage in the 21st century. *Current Directions in Psychological Science*, 23(6), 427–432. <https://doi.org/10.1177/0963721414549043>
- Rosino, M. (2016). ABC-X model of family stress and coping. In *The Encyclopedia of Family Studies*. John Wiley & Sons. <https://doi.org/10.1002/9781119085621.wbefs313>
- Rudolph, C. W., & Zacher, H. (2021). Family demands and satisfaction with family life during the COVID-19 pandemic. *Couple and Family Psychology: Research and Practice*, 10(4), 249–259. <https://doi.org/10.1037/cfp0000170>
- Salari, N., Hosseini-Far, A., Jalali, R., Vaisi-Raygani, A., Rasoulpoor, S., Mohammadi, M., Rasoulpoor, S., & Khaledi-Paveh, B. (2020). Prevalence of stress, anxiety, depression among the general population during the COVID-19 pandemic: A systematic review and meta-analysis. *Globalization and Health*, 16(1), Article 57. <https://doi.org/10.1186/s12992-020-00589-w>
- Schneiderman, N., Ironson, G., & Siegel, S. D. (2005). Stress and health: Psychological, behavioral, and biological determinants. *Annual Review of Clinical Psychology*, 1, 607–628. <https://doi.org/10.1146/annurev.clinpsy.1.102803.144141>
- Singh, S., & Sagar, R. (2021). A critical look at online survey or questionnaire-based research studies during COVID-19. *Asian Journal of Psychiatry*, 65, Article 102850. <https://doi.org/10.1016/j.ajp.2021.102850>
- Singletary, B., Schmeer, K. K., Purtell, K. M., Sayers, R. C., Justice, L. M., Lin, T.-J., & Jiang, H. (2022). Understanding family life during the COVID-19 shutdown. *Family Relations*, 71(2), 475–493. <https://doi.org/10.1111/fare.12655>
- Suzuki, S. (2010). The effects of marital support, social network support, and parenting stress on parenting: Self-efficacy among mothers of young children in Japan. *Journal of Early Childhood Research*, 8(1), 40–66. <https://doi.org/10.1177/1476718X09345506>
- Tabachnick, B. G., & Fidell, L. S. (2019). *Using multivariate statistics* (7th ed.). Pearson.
- Turliuc, M. N., & Candel, O. S. (2021). Not all in the same boat. Socioeconomic differences in marital stress and satisfaction during the Covid-19 pandemic. *Frontiers in Psychology*, 12, Article 635148. <https://doi.org/10.3389/fpsyg.2021.635148>
- Ungar, M., & Theron, L. (2020). Resilience and mental health: How multisystemic processes contribute to positive outcomes. *The Lancet. Psychiatry*, 7(5), 441–448. [https://doi.org/10.1016/S2215-0366\(19\)30434-1](https://doi.org/10.1016/S2215-0366(19)30434-1)
- U.S. Department of Veterans Affairs. (n.d.). *Strategies for families to adapt to the coronavirus (COVID-19) pandemic*. www.ptsd.va.gov/covid/covid_family_strategies.asp
- van Dijk, W., Schatschneider, C., Al Otaiba, S., & Hart, S. A. (2022). Assessing measurement invariance across multiple groups: When is fit good enough? *Educational and Psychological Measurement*, 82(3), 482–505. <https://doi.org/10.1177/00131644211023567>
- Vaughan, R. S., Edwards, E. J., & MacIntyre, T. E. (2020). Mental health measurement in a post Covid-19 world: Psychometric properties and invariance of the DASS-21 in athletes and non-athletes. *Frontiers in Psychology*, 11, Article 590559. <https://doi.org/10.3389/fpsyg.2020.590559>
- Verlenden, J. V., Pampati, S., Rasberry, C. N., Liddon, N., Hertz, M., Kilmer, G., Viox, M. H., Lee, S., Cramer, N. K., Barrios, L. C., & Ethier, K. A. (2021). *Association of children's mode of school instruction with child and parent experiences and well-being during the COVID-19 pandemic—COVID Experiences Survey, United States, October 8–November 13, 2020* (Morbidity and Mortality Weekly Report, Vol. 70, No. 11). U.S. Department of

- Health & Human Services, Centers for Disease Control and Prevention. <https://doi.org/10.15585/mmwr.mm7011a1>
- Villarreal-Zegarra, D., Copez-Lonzoy, A., Paz-Jesús, A., Costa-Ball, C. D., Villarreal-Zegarra, D., Copez-Lonzoy, A., Paz-Jesús, A., & Costa-Ball, C. D. (2017). Validity and reliability of the Family Satisfaction Scale in university students of Lima, Peru. *Actualidades en Psicología*, 31(123), 90–99. <https://doi.org/10.15517/ap.v31i123.23573>
- Walsh, F. (2016). Family resilience: A developmental systems framework. *European Journal of Developmental Psychology*, 13(3), 313–324. <https://doi.org/10.1080/17405629.2016.1154035>
- Walsh, F. (2020). Loss and resilience in the time of COVID-19: Meaning making, hope, and transcendence. *Family Process*, 59(3), 898–911. <https://doi.org/10.1111/famp.12588>
- Wang, L., Shi, Z., Zhang, Y., & Zhang, Z. (2010). Psychometric properties of the 10-item Connor–Davidson Resilience Scale in Chinese earthquake victims. *Psychiatry and Clinical Neurosciences*, 64(5), 499–504. <https://doi.org/10.1111/j.1440-1819.2010.02130.x>
- Weaver, J. L., & Swank, J. M. (2021). Parents' lived experiences with the COVID-19 pandemic. *The Family Journal*, 29(2), 136–142. <https://doi.org/10.1177/1066480720969194>
- Williamson, H. C. (2020). Early effects of the COVID-19 pandemic on relationship satisfaction and attributions. *Psychological Science*, 31(12), 1479–1487. <https://doi.org/10.1177/0956797620972688>
- Ye, B., Wu, D., Im, H., Liu, M., Wang, X., & Yang, Q. (2020). Stressors of COVID-19 and stress consequences: The mediating role of rumination and the moderating role of psychological support. *Children and Youth Services Review*, 118, Article 105466. <https://doi.org/10.1016/j.childyouth.2020.105466>
- Zabriskie, R. B., & Ward, P. J. (2013). Satisfaction with Family Life Scale. *Marriage & Family Review*, 49(5), 446–463. <https://doi.org/10.1080/01494929.2013.768321>
- Zhang, S. X., Wang, Y., Rauch, A., & Wei, F. (2020). Unprecedented disruption of lives and work: Health, distress and life satisfaction of working adults in China one month into the COVID-19 outbreak. *Psychiatry Research*, 288, Article 112958. <https://doi.org/10.1016/j.psychres.2020.112958>
- Zviedrite, N., Hodis, J. D., Jahan, F., Gao, H., & Uzicanin, A. (2021). COVID-19-associated school closures and related efforts to sustain education and subsidized meal programs, United States, February 18–June 30, 2020. *PLoS ONE*, 16(9), Article e0248925. <https://doi.org/10.1371/journal.pone.0248925>

SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

How to cite this article: Brik, A. B., Williams, N. A., & Ladd, S. B. (2024). Stressor pileup, family and couple relational well-being, and parent stress during the COVID-19 pandemic. *Family Relations*, 73(1), 95–115. <https://doi.org/10.1111/fare.12982>