



Structural Inequities in Self-compassion and Parental Burnout

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Abstract

Objectives When parenting-related stressors and coping resources are chronically imbalanced, there is risk of parental burnout, and consequent negative impact on parent and child wellbeing. The objective of this study was to determine the relations between structural and social determinants of health inequities, self-compassion (a theoretically indicated coping practice), and parental burnout during the COVID-19 pandemic.

Method Participants were parents ($n=2324$) with at least one child aged 4–17 in the household recruited from NORC’s AmeriSpeak Panel (a probability-based panel providing coverage of 97% of the US household population). Parents completed an online or telephone questionnaire in English or Spanish in December 2020. Structural equation modeling was used to test a system of relations between income, race and ethnicity, parental burnout, and parent and child mental health. Indirect effects and moderation by self-compassion were also tested.

Results On average, parents experienced symptoms of burnout several days per week. Symptoms were the most frequent among parents with the least income, as well as female-identified and Asian parents. More self-compassion was associated with less parental burnout, and fewer parent and child mental health difficulties. Black and Hispanic parents were more self-compassionate compared to white parents, helping to explain similar levels of parental burnout and relatively better mental health outcomes, despite comparatively more stressors.

Conclusions Self-compassion is a potentially promising target for interventions aiming to address parental burnout; however, such efforts must not detract from critical structural changes to reduce parenting stressors, particularly those impacting parents experiencing systemic racism and other forms of socioeconomic disadvantage.

Preregistration This study is not preregistered.

Keywords Burnout · Parenting · Self-compassion · Social determinants of health

The COVID-19 pandemic has been stressful for parents of school-aged youth (Adams et al., 2021). When parenting-related stressors and coping resources are chronically imbalanced, there is risk of parental burnout (Mikolajczak &

Roskam, 2018), and consequent negative impact on parent and child wellbeing (Griffith, 2022). Burnout is a multidimensional stress-related disorder characterized by emotional exhaustion, depersonalization, and reduced feelings of competence (Arrogante & Aparicio-Zaldivar, 2017; Maslach & Leiter, 2017). Parents experiencing burnout may become less emotionally invested in their relationship with their child, focusing only on meeting their minimal instrumental needs (Roskam et al., 2017). They may also be more easily “fed up” (Roskam et al., 2017) and at risk for neglectful and violent parenting behaviors (Mikolajczak et al., 2019). Burnout can worsen parents’ own mental health, as well as the intensity and frequency of conflict within their intimate relationships (Mikolajczak et al., 2018), with negative impacts on child wellbeing; such relations may be bidirectional (Mikolajczak et al., 2018), underscoring the complex and contextualized nature of the construct.

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A growing body of literature documents the high prevalence of parental burnout during the COVID-19 pandemic (Aguiar et al., 2021; Bastiaansen et al., 2021; Chen et al., 2022; Kerr et al., 2021a, 2021b; Le Vigouroux et al., 2022; Nyanamba et al., 2022; Swit & Breen, 2022; Vertsberger et al., 2022). We frame our thinking about burnout in a social-ecological diathesis-stress model (Swearer & Hymel, 2015), in which stressors and coping practices are product of, and constrained by social and contextual conditions. Families structurally disadvantaged due to systemic racism or poverty were among those most negatively impacted by the COVID-19 pandemic (McLaren, 2020), with potential implications for parent stress and burnout. While all families faced the threat of illness, pandemic mortality was substantially higher among the least affluent, and among Black and Hispanic Americans (Figueroa et al., 2021; Miller et al., 2021), due in part to differences in occupational exposures, residential density, and pre-existing comorbidities rooted in systemic racism (Khazanchi et al., 2020). School and childcare closures and restrictions meant that many families had new child supervision demands, including supporting children in remote learning and helping them manage increased social isolation. More affluent families had more control over work schedules and were better able to pay for childcare or external support for home learning (Kalluri et al., 2021). They were also more likely to resume in-person school earlier compared to their peers, in part due to private schools taking costly risk-mitigation measures and re-opening sooner than public school counterparts (Kroshus et al., 2020). Among racial and ethnic minority parents, pandemic-related stressors were experienced in intersection with interpersonal and institutional racism in other domains (Cheah et al., 2020). High-profile instances of violence against Black and Asian Americans concurrent with the COVID-19 pandemic brought heightened focus to these ongoing sources of stress.

What is not certain is whether inequitable exposure to such stressors translated to inequitable parent experiences of burnout. More broadly, the pathways between key social determinants of health, including socioeconomic status and race (as an indicator of exposure to systemic racism), and parental burnout, have not as yet been well illuminated. Prior research in large, multi-country convenience samples of parents has observed small positive relations between parental burnout and subjective self-reported measures of socioeconomic disadvantage (neighborhood disadvantage and family financial situation) (Roskam et al., 2021; van Bakel et al., 2022). In a convenience sample of parents in the USA during the COVID-19 pandemic, higher levels of burnout were observed among parents with more income (Kerr et al., 2021a, 2021b). However, there has as-yet been no rigorous assessment of these relations in a representative sample using objective measures of financial status. The

USA has a unique social context that may impact the association between socioeconomic status and burnout. In the USA, social policies tend to be less supportive of families compared to other industrialized nations, and thus income may be more strongly related to parenting stressors and coping resources. Furthermore, the USA endures ongoing racial inequities related to structural racism that has its history in enslavement of Black people. The acute nature of COVID-19 stressors may have heightened the influence of income and systemic racism on parental burnout. More socioeconomically advantaged families operating in systems that were designed for them may have been able to more rapidly mobilize resources (i.e., financial, social, political) to cope with unanticipated emergent parenting challenges.

Amid these structural inequities that must be addressed as a systems level, individual coping practices may moderate the association between the objective nature of stressors and the extent to which parents experience burnout; such constraints are consistent with a social-ecological diathesis-stress model (Swearer & Hymel, 2015). During the COVID-19 pandemic, where many stressors were outside of parent control (e.g., policies, community-level rates of infection), self-compassion has been suggested as a particularly helpful coping practice for parents (Coyne et al., 2020); however, this has not as-yet been assessed empirically. Self-compassion is defined as responding to personal challenges with non-avoidant, mindful awareness of one's emotional experience, self-kindness, and with a sense of connection to a common humanity (Raes et al., 2011). These responses can help generate positive emotions and psychological flexibility (Coyne et al., 2020; MacBeth & Gumley, 2012; Sirois et al., 2015), theoretically allowing for more expansive and adaptive coping responses (Folkman, 2008; Tugade et al., 2004). Among parents, more self-compassion has been associated with reduced feelings of parenting shame and guilt (negative emotions) (Sirois et al., 2019), lower levels of stress (Gouveia et al., 2016; Neff & Faso, 2015), and greater use of positive parenting practices (Gouveia et al., 2016), which may theoretically directly impact child wellbeing (Uji et al., 2014; Vostanis et al., 2006).

Others have proposed that psychosocial factors (along with parenting practices and family functioning) explain more variance in parent burnout compared to structural factors and related socio-demographic characteristics (Mikolajczak et al., 2018; Roskam et al., 2018). There has not as yet been a rigorous assessment of how individual psychosocial coping assets (e.g., self-compassion) and structural stressors (e.g., income) interact to modify risk of parental burnout. In general, stressors limit the cognitive and emotional resources that an individual has available to employ in appraising and responding to challenges. Thus, individuals experiencing more structural stressors may face heightened barriers to engaging in self-compassionate coping. However,

Vigna and colleagues' study of high school youth finds that individuals with structurally marginalized racial identities have higher self-compassion compared to their peers, and suggest that self-kindness may be functioning as an adaptive coping mechanism (Vigna et al., 2018). To the extent this is the case among parents, it would not mitigate the need to address inequities in parenting stress, but it would illuminate strengths and sources of resilience that can be instructive for all parents. Conversely, if self-compassion does not mitigate the influence of stressors on burnout, or if it is more effective among individuals experiencing fewer structural stressors and who have more material coping resources, then it may not be an appropriate target for equitable prevention of parental burnout.

Describing how parental burnout and parent and child mental health difficulties were distributed in the USA during the COVID-19 pandemic can provide guidance about where to focus efforts to improve wellbeing now and during future circumstances that heighten parenting stressors. In the present study, we provide a nationally representative estimate of the prevalence of parental burnout in the USA during the COVID-19 pandemic, and how burnout is distributed by parent socioeconomic characteristics. Framed by a social-ecological diathesis-stress model (Swearer & Hymel, 2015), we tested a system of relations between parent income and race and ethnicity and parental burnout and parent and child mental health directly, and indirectly via their association with exposure to COVID-19-related stressors and self-compassion (Fig. 1). We also tested whether the association between income, exposure to COVID-19 stressors, and burnout and mental health measures is moderated by parent self-compassion, with exploratory analyses related to the association between race and ethnicity and these constructs.

Method

Participants

This nationally representative, cross-sectional survey recruited US adults aged 18–64 with at least one child aged 4–17 in the household. Participants were recruited from

NORC's AmeriSpeak Panel. AmeriSpeak is a probability-based panel providing coverage of 97% of the US household population. Randomly selected households were sampled using area probability and address-based sampling, with a known, nonzero probability of selection from the NORC National Sample Frame. Surveys were offered by web and telephone in English and Spanish. Thirty-six sampling strata were used, based on age, race/Hispanic ethnicity, education, and gender. The size of the selected sample per stratum was determined by the population distribution for each stratum, accounting for expected differential survey completion rates so that the set of panel members with a completed interview was representative of the target population. Participant demographics were generally close to the target population of all US households with children in terms of race (64% white), ethnicity (16% Hispanic), and parent education (18% \leq High School education), with moderate oversampling of women (72%) and low-income participants (21% household incomes \leq US\$30,000/year). Children were nearly equally male (48%) and female (50.1%), with a mean age of 10 (SD = 4) and range of 4–17 years old (Table 1).

Procedure

Surveys were fielded between December 2, 2020, and December 21, 2020. Data collection occurred during the COVID-19 pandemic, prior to the availability of a vaccine, and while most schools in the USA were operating remotely or in a hybrid modality. Panelists were offered the cash equivalent of US\$3 for completing the survey. Of the 2693 panel members who completed the screener, 94.0% ($n = 2530$) were determined eligible, and 91.9% ($n = 2324$) of eligible panelists completed the survey, 2299 via the Internet and 25 via the phone. One adult per household was eligible. For questions about children, parents/guardians were asked to reference the child with the closest upcoming birthday. Research activities were approved by the Seattle Children's Hospital Institutional Review Board. The study follows the Strengthening the Reporting of Observational Studies in Epidemiology guidelines (von Elm et al., 2007).

Fig. 1 Figure depicting the system of relations in which COVID-19 stressors and self-compassion are theorized to mediate the relations between structural determinants of health and parent and child mental health outcomes

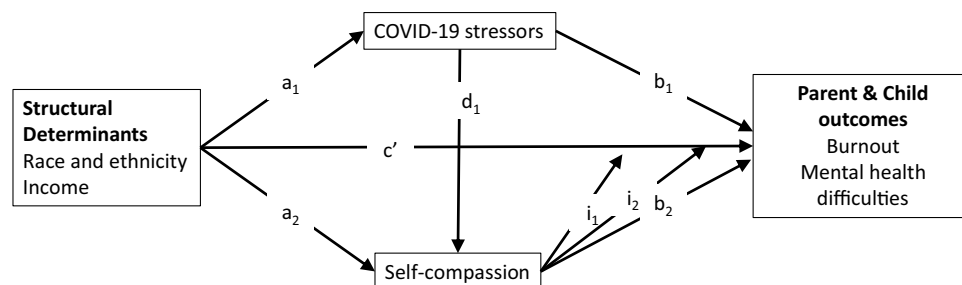


Table 1 Raw and weighted sample characteristics

Variable	Unweighted (<i>n</i> = 2324)		Weighted (<i>n</i> = 2324)	
	<i>n</i>	%	<i>n</i>	%
Sex				
Female	1672	(71.9)	1244	(53.5)
Male	652	(28.1)	1080	(46.5)
Age				
18–29	196	(8.4)	352	(15.2)
30–44	1309	(56.3)	1578	(67.9)
45–59	732	(31.5)	349	(15.0)
60+	87	(3.7)	45	(1.9)
Race and ethnicity				
White, non-Hispanic	1485	(63.9)	1228	(52.8)
Black, non-Hispanic	245	(10.5)	282	(12.1)
Asian, non-Hispanic	89	(3.8)	119	(5.1)
Hispanic	373	(16.0)	582	(25.0)
2+, non-Hispanic	96	(4.1)	68	(2.9)
Other, non-Hispanic	36	(1.5)	46	(2.0)
Education				
Bachelor's degree	597	(25.7)	460	(19.8)
Less than HS	111	(4.8)	277	(11.9)
HS graduate	310	(13.3)	633	(27.2)
Vocational/tech school/some college/associates	884	(38.0)	640	(27.6)
Post grad study/professional degree	422	(18.2)	314	(13.5)
Income in thousands (mean (<i>SD</i>))				
Less than US\$29,999	495	(21.3)	623	(26.8)
US\$30,000 to US\$74,999	848	(36.5)	853	(36.7)
US\$75,000 to US\$124,999	616	(26.5)	544	(23.4)
US\$125,000 or higher	365	(15.7)	304	(13.1)
Child gender				
Male	1119	(48.2)	1113	(47.9)
Female	1163	(50.1)	1164	(50.1)
Non-binary/transgender/intersex/other	5	(0.2)	8	(0.3)
Prefer not to answer	34	(1.5)	37	(1.6)
Child age (mean (<i>SD</i>))	10.7	(4.1)	10.2	(4.12)
COVID-19-related stressors (mean (<i>SD</i>))	4.3	(1.9)	4.3	(2.0)
Self-compassion (mean (<i>SD</i>))	3.1	(0.7)	3.2	(0.7)
Parental burnout (mean (<i>SD</i>))	1.8	(0.7)	1.7	(0.7)
Parent mental health ¹ (mean (<i>SD</i>))	3.1	(2.9)	3.1	(3.0)
Child mental health ² (mean (<i>SD</i>))	10.8	(6.5)	10.8	(6.3)

¹Parent score on PHQ-4 scale (Kroenke et al., 2009), reflecting symptoms of depression and anxiety

²Child score on the Strengths and Difficulties Questionnaire (Goodman, 1997)

Measures

Parental Burnout

Parents completed Meeussen and Van Laar's validated 4-item short-form version (Meeussen & Van Laar, 2018) of the Parental Burnout Inventory (Roskam et al., 2017). Items were: "I feel emotionally drained by my parenting

role," "I sometimes feel as though I am taking care of my child(ren) on autopilot," "I feel tired when I get up in the morning and have to face another day with my child(ren)," and "I am at the end of my patience at the end of a day with my child(ren)." Response options related to the frequency these experiences occurred over past 2 weeks: no days at all, several days, more than half the days, nearly every day. Responses summed to create a scale with a possible range of

4 to 16, where higher scores indicate higher levels of parental burnout. Internal consistency reliability was adequate (McDonald's $\omega_1 = 0.88$).

Self-compassion

Parents completed the 12-item Self-Compassion Scale-Short Form (Raes et al., 2011). An example item is “When I’m feeling down, I tend to feel like most other people are probably happier than I am.” Responses about the frequency of the referenced experience were on a 5-point Likert scale, ranging from *almost never* (1) to *almost always* (5). Responses summed to create a scale with a possible range of 12 to 60, where higher scores indicate more self-compassionate coping. Internal consistency reliability was adequate (McDonald's $\omega_1 = 0.88$).

COVID-19 Stressors

Parents completed the 11 items from the COVID-19 Exposure and Family Impact Survey (CEFIS) that assessed how COVID-19 impacted their family. Example items include “our family income decreased” and “someone in family died from COVID-19.” The response for each item was yes or no, summed to create an index with a possible range of 0–11, where higher scores indicate more stressors.

Mental Health Difficulties

The parent-report version of the SDQ was used to assess child mental health difficulties in four domains: emotional problems, peer problems, conduct, and hyperactivity. Questions referenced child behavior over the past month, with response options of 0 = *Not True*, 1 = *Somewhat True*, and 2 = *Certainly True*. Age-specific versions were used depending upon the age of the reference child. Responses from these four subscales were summed to provide a *total difficulties* score that ranged from 0 to 40 (Goodman, 1997). Measurement reliability was good (McDonald's $\omega_1 = 0.85$). Parent symptoms of depression and anxiety during the previous two weeks were measured using the 4-item Patient Health Questionnaire (PHQ-4) (Kroenke et al., 2009). Questions ask about how frequently specified internalizing symptoms were experienced, with response options of 0 = *Not at all*, 1 = *Several days*, 2 = *More than half the days*, 3 = *Nearly every day*. Responses were summed to create a scale with a possible range of 0 to 12, where scores of 0 to 2 are classified as normal, 3 to 5 as mild, 6 to 8 as moderate, and 9 to 12 as severe symptomatology (Kroenke et al., 2009).

Demographic Characteristics

Demographic characteristics included parent sex, age, race and ethnicity, education, and child gender and age. Household income was measured in 18 categories ranging from “less than US\$5,000/year” to “US\$200,000 or more/year” and analyzed as a continuous variable using the midpoint of each category.

Data Analyses

Structural Equation Modeling

Structural equation modeling was used to estimate differences in burnout, parent mental health difficulties, and child mental health difficulties across race, ethnicity and income, and the proportion of differences attributable to the indirect influence of race, ethnicity, and income via the two mediating variables COVID-19 stressors and self-compassion. Data were fit to the model shown in Fig. 1. This model includes race, ethnicity, and income as structural antecedents of COVID-19 stressors and self-compassion, which in turn are theorized to cause parent burnout, parent mental health difficulties, and child mental health difficulties. Self-compassion is theorized to be reduced by COVID-19 stressors, but also to buffer the impacts of these stressors (e.g., interaction effects) on parent and child outcomes. The indirect effect of COVID-19 stressors was calculated using the delta method (Raykov & Marcoulides, 2004) to sum all paths that went through stressors ($a_1 * b_1 + a_1 * d_1 * b_2$), adjusting for any group-specific moderation effects (i_1, i_2). The indirect effect of self-compassion was calculated as $a_2 * b_2$, adjusting for group-specific interaction effects (i_1). Total effects were calculated as the sum of all direct and indirect effects leading to each outcome. Because this is a fully saturated model, fit to the data is perfect by definition and thus model fit criteria are irrelevant.

Statistical Weighting

This survey targeted US households with at least one child aged 4–17. Statistical weights were initially calculated using panel-based sampling weights, then raked to external population totals associated with age, sex, education, race/Hispanic ethnicity, housing tenure, telephone status, and census division. External population totals were obtained from the Current Population Survey, March 2020. Weights were applied to sample characteristics but not structural equation models, as the latter controlled for relevant design variables (Winship & Radbill, 1994). Sample characteristics were estimated using the R package *survey* (Lumley, 2004)

and structural equation models were estimated using the R package *lavaan* (Rosseel, 2012).

Effect Sizes

All continuous variables were standardized before analysis; thus, path coefficients of relations between two continuous variables are standardized. When independent variables were binary/multinomial, effect sizes corresponded to Cohen's d , the group difference divided by the baseline standard deviation. Confidence intervals are presented for all effect sizes; when the interval excludes 0, the effect is considered statistically significant.

Missing Data

Missingness was minimal, ranging from 0 to 3 observations for all study variables with the exception of the SDQ, which was missing 92 observations (4%). This analysis used full information maximum likelihood estimation, which produces unbiased estimates to the extent that any differences between missing and observed values can be explained by other observed variables (i.e., data are *missing at random*) (Graham, 2003). The Satorra-Bentler correction was used to obtain standard errors robust to nonnormality (Satorra & Bentler, 1994).

Results

Table 1 presents unweighted and weighted descriptive characteristics of the sample. On average, participants experienced 4.3 (SD = 2.0) COVID-related stressors and had a mean parental burnout score of 1.7 (SD = 0.7, range: 1 to 4), corresponding to experiencing burnout symptoms “several days per week.”

Results from the structural equation model are presented in Table 2. Results include point estimates, aggregated indirect effects, and total effects between each predictor and outcome variable. Table 2 also provides labels that link results to the theoretic model shown in Fig. 1. COVID-19-related stressors were significantly higher for Black ($d = 0.24$, 95% CI, 0.08 to 0.39) and Hispanic participants ($d = 0.27$; 95% CI, 0.15, 0.40) compared to white participants, corresponding to small effect sizes. The relation was directionally similar for mixed/other race participants, but not significantly different from zero. Women reported higher levels of COVID-19-related stressors compared to men ($d = 0.11$; 95% CI, 0.01 to 0.21). Income was not significantly associated with COVID-19-related stressors. Self-compassion was higher for both Black ($d = 0.38$; 95% CI, 0.24 to 0.52) and

Hispanic participants ($d = 0.20$; 95% CI, 0.08 to 0.32) compared to white participants. It was also higher for participants with higher incomes ($B = 0.06$; 95% CI, 0.02 to 0.10). Female participants reported lower levels of self-compassion compared to males (total effect $d = -0.25$; 95% CI, -0.15 to -0.35), with 4% of this effect explained by the indirect pathway of experiencing more stressors.

COVID-19-related stressors, as theorized, were statistically significantly linked to lower levels of self-compassion, and higher levels of parental burnout, parent mental health difficulties, and child mental health symptoms, with standardized effects again in the small range (range: $|B|$ from 0.08 to 0.10, $p < 0.001$). Self-compassion, as theorized, was associated with moderate to large lower levels of in parental burnout, parent mental health difficulties, and parent-reported child mental health difficulties. Significant interaction effects indicated that the links between self-compassion and burnout, and self-compassion and parent mental health difficulties, were marginally stronger for participants with lower incomes. Although higher self-compassion was associated with lower child mental health difficulties for all racial and ethnic groups (i.e., none of the group**self-compassion* interactions significantly reduced the main effect), a significant interaction term ($B = -0.21$; 95% CI, -0.05 , -0.37) indicated the relation between self-compassion and child mental health difficulties was the strongest for Black participants.

Parental burnout was higher for Asian participants compared to white participants ($d = 0.24$; 95% CI, 0.06 to 0.42), and this did not appear to be increased or offset by differences in COVID-19 stressors or self-compassion. A one standard deviation increase in income was associated with a small decrease in parental burnout ($B = -0.05$; 95% CI, -0.09 to -0.01), driven largely by the indirect influence of higher incomes being linked to higher levels of self-compassion (indirect effect = -0.02 , 95% CI -0.004 to -0.036). Being female was associated with moderately more burnout ($d = 0.32$; 95% CI, 0.24 to 0.40), due in part to more COVID-related stressors and lower levels of self-compassion.

Levels of parent scores on the PHQ-4 (measuring symptoms of depression and anxiety) were significantly higher for participants of mixed/other non-white races compared to white participants ($d = 0.17$; 95% CI, 0.01 to 0.33). This was not the case for Hispanic and Black participants, whose PHQ-4 scores were offset by the indirect influence of having higher levels of self-compassion (indirect effects for Black parents = -0.17 ; 95% CI -0.09 to -0.25 ; indirect effects for Hispanic parents = -0.08 , 95% CI -0.02 to -0.14). Participants with higher incomes reported lower levels of depression, also explained by having, on average, higher levels of self-compassion (indirect effect = -0.03 , -0.01 to -0.05). Female participants had higher PHQ-4 scores, explained in part by significant indirect effects of lower

Table 2 Results from structural equation modeling of self-compassion, burnout, and parent and child mental health

	Outcome																	
	COVID-19 stressors			Self-compassion			Parental burnout			Parent mental health			Child mental health					
	<i>B</i>	<i>SE</i>	<i>p</i>	<i>B</i>	<i>SE</i>	<i>p</i>	<i>B</i>	<i>SE</i>	<i>p</i>	<i>B</i>	<i>SE</i>	<i>p</i>	<i>B</i>	<i>SE</i>	<i>p</i>			
Race and ethnicity (reference = white)	<i>a</i> ₁ paths						<i>a</i> ₂ paths						<i>c</i> ' paths, all indirect pathways					
Black																		
Controlled direct effect	0.24	0.08	0.004	0.38	0.07	< 0.001	0.07	0.07	0.33	0.10	0.07	0.14	-0.07	0.07	0.36			
Indirect effect via COVID-19 stressors	---	---	---	-0.02	0.01	0.018	0.03	0.01	0.012	0.03	0.01	0.011	0.03	0.01	0.011			
Indirect effect via self-compassion	---	---	---	---	---	---	-0.14	0.03	< 0.001	-0.17	0.04	< 0.001	-0.16	0.04	< 0.001			
Total effect	0.24	0.08	0.004	0.36	0.07	< 0.001	-0.04	0.07	0.58	-0.04	0.07	0.58	-0.20	0.07	0.006			
Hispanic																		
Controlled direct effect	0.27	0.06	< 0.001	0.20	0.06	0.001	0.07	0.05	0.18	0.03	0.05	0.51	0.00	0.06	0.95			
Indirect effect via COVID-19 stressors	---	---	---	-0.02	0.01	0.002	0.03	0.01	0.001	0.03	0.01	0.001	0.03	0.01	0.001			
Indirect effect via self-compassion	---	---	---	---	---	---	-0.07	0.02	0.005	-0.08	0.03	0.003	-0.05	0.02	0.010			
Total effect	0.27	0.06	< 0.001	0.18	0.06	0.002	0.03	0.06	0.55	-0.02	0.06	0.74	-0.02	0.06	0.79			
Asian																		
Controlled direct effect	0.03	0.13	0.83	-0.05	0.10	0.62	0.24	0.09	0.006	0.06	0.09	0.49	-0.12	0.10	0.26			
Indirect effect via COVID-19 stressors	---	---	---	0.00	0.01	0.84	0.00	0.01	0.84	0.00	0.01	0.84	0.00	0.01	0.84			
Indirect effect via self-compassion	---	---	---	---	---	---	0.02	0.04	0.61	0.02	0.03	0.60	0.01	0.01	0.57			
Total effect	0.03	0.13	0.83	0.00	0.09	0.97	0.26	0.10	0.008	0.08	0.10	0.42	-0.10	0.11	0.32			
Mixed or other race, non-Hispanic																		
Controlled direct effect	0.19	0.10	0.052	0.02	0.09	0.84	0.08	0.09	0.36	0.15	0.07	0.039	0.05	0.09	0.58			
Indirect effect via COVID-19 stressors	---	---	---	-0.02	0.01	0.08	0.02	0.01	0.07	0.02	0.01	0.07	0.02	0.01	0.08			
Indirect effect via self-compassion	---	---	---	---	---	---	0.00	0.03	0.97	0.00	0.04	0.97	0.00	0.03	0.97			
Total effect	0.19	0.10	0.052	-0.05	0.10	0.61	0.10	0.09	0.29	0.17	0.08	0.045	0.07	0.09	0.48			

Table 2 (continued)

Outcome															
COVID-19 stressors			Self-compassion			Parental burnout			Parent mental health			Child mental health			
<i>B</i>	<i>SE</i>	<i>p</i>	<i>B</i>	<i>SE</i>	<i>p</i>	<i>B</i>	<i>SE</i>	<i>p</i>	<i>B</i>	<i>SE</i>	<i>p</i>	<i>B</i>	<i>SE</i>	<i>p</i>	
Income															
<i>a1 paths</i>															
Controlled direct effect	-0.02	0.02	0.45	0.06	0.02	0.010	-0.02	0.02	0.20	-0.09	0.02	< 0.001	-0.10	0.02	< 0.001
Indirect effect via COVID-19 stressors	---	---	---	0.00	0.00	0.46	0.00	0.00	0.46	0.00	0.00	0.46	0.00	0.00	0.46
Indirect effect via self-compassion	---	---	---	---	---	---	-0.02	0.01	0.009	-0.03	0.01	0.008	-0.02	0.01	0.011
Total effect	-0.02	0.02	0.45	0.06	0.02	0.009	-0.05	0.02	0.027	-0.12	0.02	< 0.001	-0.12	0.02	< 0.001
Female (reference = male)															
<i>a1 paths</i>															
Controlled direct effect	0.11	0.05	0.024	-0.24	0.05	< 0.001	0.22	0.04	< 0.001	0.14	0.04	0.001	0.04	0.04	0.33
Indirect effect via COVID-19 stressors	---	---	---	-0.01	0.00	0.044	0.01	0.01	.050	0.01	0.01	0.047	0.01	0.01	0.049
Indirect effect via self-compassion	---	---	---	---	---	---	0.09	0.02	< 0.001	0.12	0.02	< 0.001	0.06	0.01	< 0.001
Total effect	0.11	0.05	0.024	-0.25	0.05	< 0.001	0.32	0.04	< 0.001	0.27	0.05	< 0.001	0.11	0.05	0.020
COVID-19 stressors															
Controlled direct effect	---	---	---	-0.08	0.02	< 0.001	0.10	0.02	< 0.001	0.10	0.02	< 0.001	0.10	0.02	< 0.001
Self-Compassion															
Controlled direct effect (ref. group = white)	---	---	---	---	---	---	-0.39	0.02	< 0.001	-0.50	0.02	< 0.001	-0.26	0.03	< 0.001
Self-Compassion X ...	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
... Black	---	---	---	---	---	---	0.01	0.07	0.93	0.03	0.06	0.64	-0.21	0.08	0.006
... Hispanic	---	---	---	---	---	---	0.01	0.05	0.86	0.04	0.06	0.48	-0.01	0.06	0.81
... Asian	---	---	---	---	---	---	-0.01	0.10	0.95	0.16	0.11	0.14	0.09	0.10	0.36
... Other, 2+, non-Hispanic	---	---	---	---	---	---	0.03	0.07	0.73	0.08	0.07	0.30	-0.04	0.09	0.63
... Income	---	---	---	---	---	---	0.06	0.02	0.002	0.04	0.02	0.025	-0.01	0.02	0.63
... COVID-19 stressors	---	---	---	---	---	---	0.03	0.02	0.23	0.03	0.02	0.26	0.03	0.02	0.15

Note. Italicized labels refer to pathways labeled in Fig. 1. Bolded values indicate $p < 0.05$

levels of self-compassion compared to males, and somewhat higher levels of COVID-related stressors compared to males.

Parent-reported child mental health difficulties were lower for Black participants compared to white participants ($d = -0.20$; 95% CI, -0.34 to -0.06). The difference was almost fully explained by the indirect influence of self-compassion (indirect effect = -0.16 , 95% CI -0.08 to 0.24), which was both higher *and* more strongly related to child mental health difficulties for Black participants compared to white participants. Thus, although Black participants experienced more COVID-19-related stressors and these in turn accounted for a small increase in child mental health difficulties compared to white participants (indirect effect = 0.026 , 95% CI 0.006 to 0.046), the effect of COVID-19 stressors was more than offset by the buffering effects of self-compassion. Similarly, Hispanic participants reported higher levels of child mental health difficulties due to the indirect influence of COVID-19 stressors, but this increase was offset by the indirect influence of higher levels of self-compassion (indirect effect = -0.05 , 9% CI -0.01 to -0.09). Finally, participants with higher income reported lower child mental health difficulties, with a small proportion of those difficulties attributable to higher levels of self-compassion.

Discussion

In this nationally representative sample, many parents of school-aged children experienced symptoms of burnout several days per week during the COVID-19 pandemic. Consistent with a social-ecological diathesis-stress model (Swearer & Hymel, 2015), those exposed to more COVID-19-related stressors and those who had less income had more frequent symptoms of parental burnout. Higher levels of self-compassion were associated with less parental burnout, fewer parent mental health difficulties, and fewer parent-reported child mental health difficulties. While self-compassion was an important correlate of fewer child mental health difficulties for all parents, a statistically significant interaction effect indicated that its association was strongest for Black parents. Black and Hispanic parents were more self-compassionate compared to their peers of other races, helping to explain similar levels of parental burnout and relatively better mental health outcomes, despite experiencing comparatively more COVID-19-related stressors.

To our knowledge, this study provides the first estimate of the racial distribution of burnout and self-compassion among parents in the USA using a nationally representative sample; others have documented that racial minority high school students tend to be more self-compassionate compared to their white peers (Vigna et al., 2018). The higher levels of self-compassion observed among Black parents in the present sample point to a potentially promising adaptive

coping asset. We note that prior research among Black women finds that although some employ adaptive coping practices such as self-compassion in response to structural racism, many others employ maladaptive coping practices such as maladaptive perfectionism and low use of collective resources (Liao et al., 2020). More research is needed to understand the nature and origins of heterogeneity in the use of self-compassionate coping practices among Black parents. More broadly, we caution that discussing individual coping assets such as self-compassion in the face of objective and structurally determined inequities in parental stressors runs the risk of placing heightened coping burden on already individuals who are already marginalized and stressed. While self-compassion may be an adaptive coping behavior for some racial minority parents (Liao et al., 2020), structural change is needed to reduce burdens on all parents, and particularly on parents experiencing structural racism and other forms of oppression and socioeconomic disadvantage.

Asian parents experienced more burnout compared to their white peers, despite no differences in COVID-19 stressors or self-compassion. US Census categories were used to measure race and ethnicity; however, the racial category of “Asian” is broad and encompasses many different cultures, norms, and lived experiences. Concepts of self-compassion and burnout may be influenced by cultural ideologies and practices necessitating a nuanced approach to these constructs (Montero-Marin et al., 2018; Roskam et al., 2021; Zhao et al., 2021). One potential interpretation, for a sub-set of Asian parents in this sample, may have been internalization of “model minority” stereotypes, in which high levels of academic achievement are normative (Qin et al., 2008). To the extent this is the case, stressors related to supporting school-work during pandemic related schooling disruptions may have been exacerbated compared to other parents (Lee et al., 2009). More work is needed focusing specifically on the experiences of Asian parents in the USA, with the goal of better understanding of their parenting challenges and the pathways leading to heightened levels of parental burnout, considering the unique sub-cultures of the Asian diaspora.

The observed correlation between parent burnout and child mental health underscores the importance of attending to parent wellbeing in child-focused interventions. Parent self-compassion may be a useful target for such efforts. In a longitudinal study of mothers and fathers with depression, self-compassionate parents used a set of healthier coping strategies to respond to their children’s emotions (Psychogiou et al., 2016). Others have found that adolescents have fewer internalizing problems when parents are more strongly able to non-judgmentally accept their own parenting practices (Geurtzen et al., 2015). Interventions to help increase self-compassionate parenting should be explored; however, attention is also needed to the structural conditions that contribute to differences in parent self-compassion. We

observed that higher self-compassion was associated with higher levels of income and fewer COVID-19-related stressors. This finding implies that self-compassion may not be solely a personal characteristic, but may be at least in part contextually determined, facilitated by social and economic resources. Where feasible, addressing the structural conditions that contribute to self-compassion may increase parents' capacity to cope adaptively.

Female-identified parents experienced more symptoms of burnout compared to their male-identified peers. This is consistent with other recent findings from a convenience sample of parents (Kerr et al., 2021a) and not surprising as in the context of the COVID-19 pandemic the inequitable burdens of parenting on mothers (in heterosexual partnerships) have been well documented (Brown et al., 2020). However, we note that these adverse, and gender-discrepant, outcomes are in part explained by lower levels of self-compassion among female- as compared to male-identified parents. This is consistent with results of a meta-analysis that found higher levels of self-compassion among men as compared to women ($d=0.18$) (Yarnell et al., 2015). Self-compassion may be an appropriate target for parenting interventions targeted at female-identified parents; however, more research is needed to understand how gender socialization and the parenting context facilitate or impede use of this adaptive coping practice.

Limitations and Future Directions

This was a cross-sectional study, limiting our ability to describe causal relationships between the constructs studied. Longitudinal analyses would better distinguish individual trait from contextual state factors that influence levels of self-compassion. We looked at burnout for one parent; however, many families include a co-parent, and resources and coping assets across both parties should theoretically impact risk of burnout and parent and child wellbeing. Further research using dyadic or network methods could potentially explain more variability in how stressors and wellbeing transact across the broader family system. We did not include all theoretically possible predictors of parental coping and burnout in our model, such as role restriction and social support. The interaction between self-compassion and other dimensions of parent coping should be explored in future work. We note that although we employed a validated measure of child mental health difficulties, it was nonetheless based on parent report. Additionally, child-level factors such as behavioral disorders or chronic illnesses may interact uniquely with COVID-related stressors to further stress the family system. More broadly, the use of only parent-reported survey data introduces the possibility of common method bias. This means that correlations observed between constructs may have been spurious and the result of the measurement instrument and how participants engage with it (e.g., response styles, socially

desirable responding) rather reflecting true correlations between the constructs of interest (Podsakoff et al., 2012). Future research would benefit from the inclusion of other means of data collection, including comprehensive clinical measures of child wellbeing. We also note that further research is needed to explore the determinants and consequences of self-compassion across parents of all racial and ethnic backgrounds, including those from oppressed racial groups not adequately sized in the present sample for race-specific analyses. We did not measure exposure to structural racism directly, with self-reported race and ethnicity used as a proxy for group-level exposure. Future research should include a measure of individual experiences with multiple forms of racism.

Results of this study are consistent with a social-ecological diathesis-stress model (Swearer & Hymel, 2015), and underscore the importance of a contextualized understanding of parenting coping. While self-compassion may be one useful target for individually focused interventions to reduce parental burnout, such efforts must not detract from critical structural changes to reduce parenting stressors, particularly those impacting parents experiencing systemic racism and other forms of socioeconomic disadvantage.

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Data Availability The data that support the findings of this study are available on request from the corresponding author.

Declarations

Ethics Statement This study was approved by the Institutional Review Board of Seattle Children's Hospital.

Informed Consent All participants provided informed consent.

Conflict of Interest The authors declare no competing interests.

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