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Original article

## COVID-19 Employment Status, Dyadic Family Relationships, and Child Psychological Well-Being



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Article history: Received March 24, 2021; Accepted July 14, 2021

Keywords: COVID-19; Employment status; Family relationship; Psychological well-being; Socioeconomic status

### ABSTRACT

**Purpose:** COVID-19 has led to soaring unemployment rates and the widespread adoption of working-from-home (WFH) arrangements that have disrupted family relationships and adolescent psychological well-being. This longitudinal study investigated how parental employment status (i.e., job loss and WFH) influenced adolescents' daily affect indirectly through family functioning (i.e., parent-adolescent conflict and parental warmth) and whether these links varied by family's socioeconomic status.

**Methods:** Daily-diary approaches were used to collect dyadic parent-adolescent data from a nationwide American sample (6,524 daily assessments from 447 parent-adolescent dyads; 45% black, 36% white, 10% Latinx, 7% Asian American, 2% Native American) over the course of 15 consecutive days at the onset of the COVID-19 pandemic.

**Results:** Parents who experienced job loss demonstrated increases in parent-child conflict, which in turn predicted decreases in child positive affect and increases in child negative affect. Furthermore, parents' WFH status predicted increases in parental warmth, which in turn predicted increases in child positive affect and decreases in child negative affect. Parents of low-income families were more likely to experience job loss (24% vs. 13%) and less likely to WFH (44% vs. 73%) than middle-high income parents.

**Conclusions:** Adolescents from families facing economic hardship and employment shifts during COVID-19 experienced changes in parent-child relational dynamics that influenced their emotional well-being. Recognizing these shifts in family ecology is critical to health providers' ability to screen for mental health, assess existing family supports, and provide timely, targeted information about stress management and contending with family conflict.

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### IMPLICATIONS AND CONTRIBUTION

COVID-19 has upended the economic landscape in the United States through widespread job loss and rapid transitions to working from home. These results suggest that working-from-home arrangements help parents foster warm relationships with their children that in turn reduce negative affect and promote positive affect.

This work was supported by Spencer Foundation (#201600067).

**Conflicts of interest:** The authors have no conflicts of interest to disclose.

**Data availability statement/Data deposition:** The data sets generated and/or analyzed during the present study are not publicly available, but they are available from the corresponding author on reasonable request.

**Contributors statement:** Wang conceptualized and designed the study, drafted the introduction, method, and result sections, and reviewed/revised the manuscript. Henry drafted the discussion section and reviewed/revised the manuscript. Del Toro conducted data analysis and critically reviewed the manuscript for important

intellectual content. Scanlon and Schall coordinated and supervised data collection instruments, collected data, drafted the literature review, and reviewed/revised the manuscript. All authors approved the final manuscript as submitted and agree to be accountable for all aspects of the work.

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COVID-19 has resulted in shifts in parental employment that have negatively impacted family relationships [1] and individual psychological well-being [2], especially for those contending with poverty or economic uncertainty [3,4]. While many American parents have experienced job loss during COVID-19, others have shifted to temporary work-from-home (WFH) arrangements. Researchers have examined predictors and implications of these employment changes [5]; however, it remains unclear whether and how parent-adolescent relationships have been impacted by job loss and WFH during the pandemic. Furthermore, we do not understand how these relationships may influence adolescents' psychological well-being under circumstances where youth are facing unprecedented and unforeseen threats to their mental health [6]. As such, this longitudinal study examines the relation between COVID-19 employment status, family relationships, and adolescent affect.

To build on existing work addressing family ecological vulnerabilities [7], we define resilience as "the capacity of a dynamic system to adapt successfully to disturbances that threaten system function, viability, or development" [8]. We assert that pandemic-related changes in parents' employment status shape family inter-relations that in turn influence individual family members' psychological resilience and well-being. Specifically, we hypothesized that job loss and WFH status influence parent-child relationships, including parent-adolescent conflict and parental warmth. In turn, we expected these changes in family relationships to be linked to children's daily affect.

COVID-19 has upended the economic landscape in the United States through widespread job loss and rapid transitions to WFH arrangements. WFH requires parents to simultaneously be a productive employee, dedicated parent, and, in the case that their children participate in virtual learning, teacher's assistant. Changes to COVID-19 employment circumstances have also occurred in conjunction with social disruption as a result of public health measures. Accordingly, job loss and changing work schedules may stress family routines and put significant strain on family relationships [2,4,9]. During these times of unrest, parents are more likely to exhibit low warmth and experience heightened conflict with their children [1,10]. Such contentious parent-child relationships place adolescents at risk for elevated negative affect [11], whereas parental warmth may buffer against negative affect while also promoting positive affect [12].

While the extant literature is clear on the consequences of job loss on family stress, less is known about sudden shifts to WFH arrangements. Although remote schooling, shifting household demands, and elevated concerns over children's adjustment may have increased parenting responsibilities and put pressure on WFH parents [1,4,5], WFH may have also offered the opportunity for increased parental warmth through expanded family time and reduced work-family conflict [13,14]. In fact, the increased flexibility of WFH arrangements has been associated with improved work-family balance [13] and increases in available time to spend with family [14]. Few studies, however, have examined the direct effects of job loss and WFH on parental warmth. In sum, parental employment status during the pandemic is of critical import owing to consequences for family interpersonal dynamics and adolescents' psychological well-being [2,4,7].

The impact of parental employment status on parent-adolescent relationships and adolescents' psychological well-being may vary by the family's socioeconomic status [7]. Family economic stability has been shown to buffer the negative impact

of job loss on family relationships [3], and parents who WFH may have more resources to mitigate family stress caused by COVID-19 [13]. Low-income families, unfortunately, may suffer the most pervasive financial consequences of shelter-in-place policies, as wage-earners in these families tend to work jobs that are not amenable to WFH (e.g., essential workers) [3]. Owing to demands on time and limited resources, low-income parents are more likely to experience parent-child conflict and may also struggle to maintain warm, supportive relationships with their children [10]. Combined, economic vulnerabilities may place low-income families at a greater risk for household contention and maladaptive adjustment. However, studies have shown that the presence of conflict does not necessarily imply the absence of warmth. Even in circumstances of poverty, parental warmth has been shown to mitigate the negative impact of economic strain on youth well-being [15]; ergo, it is critical to understand how job loss and WFH impact family relationships across different socioeconomic backgrounds and how those family relationships in turn impact adolescent well-being.

### *The present study*

To understand whether and how parental employment status has affected parent-child relationships and adolescents' emotional well-being during the pandemic, we used dyadic parent-adolescent daily-diary data with 9,372 assessments to examine the mediating role of family relationships (i.e., parent-adolescent conflict and parental warmth) in the link between employment status (i.e., job loss, WFH) and adolescents' emotional well-being (i.e., positive and negative affect). We also investigated whether the link between employment status, family relationships, and adolescents' affect varied by families' economic circumstances. Daily-diary approaches provide a rich perspective into participants' real-time daily experiences and behaviors, thereby minimizing systematic recall bias and permitting in-depth analysis of within-person processes over time [16].

Because extant literature has suggested that the stress of COVID-19 employment status is expected to increase conflict between family members, we hypothesized that job loss would be associated with increased family conflict, which in turn would predict decreased positive affect and increased negative affect in adolescents. Conversely, there may be decreased warmth within the family as it convalesces and adapts to new ecological circumstances. Owing to a dearth in literature surrounding this topic, we propose no specific hypotheses regarding the relations between WFH and parental warmth aside from expecting warmth to be associated with increased positive and decreased negative affect of adolescents.

## **Methods**

### *Participants*

Participants included 447 parent-child dyads from an ongoing nationwide longitudinal study examining school experiences, family dynamics, and adolescent well-being in the United States. The original study worked with a research company to recruit a national sample of parents and adolescents (i.e., middle- and high-school-aged) by using a representative, random sampling method. When COVID-19 was declared a national emergency in the United States in March 2020, the original longitudinal study

was leveraged by inviting a subsample of parent (i.e., primary caregiver) and adolescent participants to engage in a 15-day daily-diary study focusing on family functioning and adjustment during the pandemic. Because of the prevalence and saliency of unemployment rates and adoption of WFH arrangements in states with stay-at-home orders, participation required residence in a state where stay-at-home orders mandated schools and nonessential businesses to close.

Approximately 79% of the qualified participants from the original study agreed to partake in the daily-diary study. The final sample included 447 parents and their adolescent children from 38 states (parent/primary caregiver sample:  $M_{age} = 43.7$ , range = 27–52 years; child sample:  $M_{age} = 15.0$ ; range = 12–18 years; see Table 1 for demographic information). This subsample did not differ from the original sample regarding sociodemographic characteristics or psychological adjustment, but there were some geographic differences. The subsample had slightly more participants from the Northeast and South regions (vs. West and Midwest) as compared with the original study sample (see Table 1). The higher number of participants from Northeast and South regions was attributed to the fact that these states implemented stay-at-home orders at the time of the study.

### Procedures

All consented parents and children first completed baseline and demographic measures one week before the daily survey period. Both parents and children then completed daily survey assessments between 5:00 P.M. and 12:00 A.M. using Internet-capable devices across 15 consecutive days from May 18 to June 1, 2020. Participants received two to four email or SMS reminders each day to complete the daily survey. Research staff contacted any participants who missed a diary entry to troubleshoot any issues with accessing the survey. Participants received \$40 for completing the baseline survey and daily-diary entries. All materials and procedures were approved by the authors' university institutional review board.

### Measures

**Parental employment status.** We measured job loss and WFH as two indicators of employment status during COVID-19. All parent respondents were employed before COVID-19. Parents were asked whether they had lost their job since the COVID-19 outbreak (0 = no, 1 = yes). Parents who remained employed were asked whether they worked from home during the COVID-19 outbreak (0 = no, 1 = yes). None of the parent respondents worked from home before the pandemic. Those with another adult in the household were asked to report on that adult's employment status as well.

**Daily child affect.** Adolescents' positive and negative affect were measured daily using the Positive and Negative Affect Scale for Children, a well-validated psychological scale [17]. We assessed positive affect with four items (i.e., grateful, energetic, happy, hopeful) and negative affect with seven items (i.e., sad, anxious, depressed, hopeless, nervous, lonely, scared). Participants reported their mood during the past 24 hours on a 5-point scale ranging from 1 (*not at all*) to 5 (*extremely*). To generate appropriate reliability to detect change [18], items were averaged to form daily composite scores of positive ( $R_C = .70$ ) and negative affect ( $R_C = .75$ ).

**Table 1**  
Demographic information for children and parent participants

	Child participant	Parent participant
Age		
Mean (SD)	15.09 (1.66)	43.66 (6.86)
Range	13–18	27–52
Sex		
% Males	39.1	13.0
Race		
% Black/African American	44.8	46.1
% White/European American	35.6	38.7
% Latinx	9.8	8.5
% Asian/Asian American	7.4	6.3
% Native American	2.4	0.4
Family socioeconomic status		
% Low income	62.0	62.0
Region in the United States		
% Northeast	58.0	58.0
% South	24.6	24.6
% Midwest	10.3	10.3
% West	7.1	7.1

**Daily family relationship.** For both parents and children, family dynamics and functioning were measured on a 5-point Likert scale using the Network of Relationship Inventory, a well-validated and widely-used scale (1 = *not at all*, 5 = *a lot*) [19]. We focused on parent and child reports of parent-child conflict (4 items; e.g., *Today, I experienced conflict or tension with my child/parent; I was yelled at by my parent*) as well as parent and child reports of parental warmth (4 items; e.g., *Today, I did something fun or relaxing with my child/parent; I felt supported by my parent*). Given that the correlations between child and parent reports ranged from moderate to high, a mean composite score for each dimension was calculated by summing the item scores of parent and child reports and dividing the total by the number of items (Parent-child conflict:  $R_C = .87$ ; parental warmth:  $R_C = .73$ ).

**Family Socioeconomic Status.** An income-to-needs ratio was calculated by dividing the family's total income by the federal poverty threshold adjusted for family size. This ratio estimates family income in a widely-used, valid, and reliable metric that uses poverty as its critical referent [20,21]. To designate low- and middle-high income families, an indicator was set to one if the income-to-needs ratio was less than 2.0 (i.e., designating low-income families) and was set to 0 if the ratio was equal to or greater than 2.0 (i.e., designating middle-high-income families).

**Covariates.** Because of their associations with family relationships and well-being, we accounted for several covariates. We included the numerical day of reporting (1–15), weekend (0 = weekday, 1 = weekend), and parent daily psychological distress (item from parent report using the Psychological Distress Scale; e.g., *I feel stressed out today*) as time-level covariates. Six person-level covariates were also collected from child or parent reports: (1) child age, (2) child sex (0 = girls, 1 = boys), (3) child race, (4) parent race, (5) parent role (0 = mothers, 1 = fathers), and (6) prepandemic parent-child relationship (2 items from parent report using the Network of Relationship Inventory; e.g., *Overall I get along with my kid*).

### Analytic plan

This study examined whether family relational dynamics mediate the association between parental employment status

and child daily affect using longitudinal multilevel modeling in *Mplus* with daily observations (level 1) nested within participants (level 2). The outcomes of interest were children's positive and negative affect at level 1. The mediators were parent-child conflict and parental warmth at level 1. The key predictors were job loss and WFH at level 2. We first tested main and mediation effects and then investigated whether these effects varied by family socioeconomic status (SES). For the mediation analysis, we used the "Model Constraint" command to estimate indirect effects (i.e.,  $a^*b$ ) using main effects for "a" (i.e., independent variable → mediator) and "b" (i.e., mediator → dependent variable) paths. For our moderation analysis, we performed multigroup chi-square test comparisons to examine whether we could constrain the paths for each SES group's model to be equivalent without causing a significant decrement in model fit. All level 1 predictors were person-mean centered. All analyses were controlled for level 1 and 2 covariates. The intra-class correlation of the outcome variables justified the use of a multilevel modeling approach, as 60%–70% of each outcome's variance was at the person level relative to the 30%–40% at the daily level.

#### *Missing data*

The amount of missing data at both the daily and person levels was relatively low. Of the possible 6,705 daily-diary assessments (15 days, 447 children and parents), there was only 6.6% ( $n = 441$ ) and 5.2% ( $n = 350$ ) missing data at the daily level for children and parents, respectively. There were varying levels of missing data at the family level: 100% of families (i.e., both parent and child) completed the baseline and demographic surveys; 62% of children and 72% of parents did not miss any daily-diary entries; 28% of children and 21% of parents missed one or two daily entries; and 6% of children and 4% of parents missed 3–4 daily entries. On average, both children and parents each completed 14 of 15 daily-diary entries.

Little's missing completely at random test suggested that the data were missing completely at random,  $\chi^2(20) = 31.10, p = ns$ . An examination of missing data patterns indicated that adolescents or parents with complete data did not differ from those with missing data on key constructs or demographic characteristics. To retain all participants in analyses, we accounted for missing data through full-information maximum likelihood estimation.

#### **Results**

**Table 2** presents means, standard deviations, and correlations among all study constructs. **Table 3** presents the mean differences by family socioeconomic status. Notably, parents of low-income families were more likely to experience job loss (24% vs. 13%) and less likely to WFH (44% vs. 73%) than middle-high income parents during COVID-19. In addition, low-income families tended to experience more parent-child conflict and less parental warmth than middle-high income families.

#### *Direct effect of employment status on family relationship*

As shown in **Table 4**, parental job loss predicted increases in parent-child conflict ( $B = .15, SE = .07, p < .05, 95\% \text{ confidence interval } [\text{CI}] [0.1, .29], ES = .12$ ). In addition, WFH predicted

increases in parental warmth ( $B = .23, SE = .08, p < .01, 95\% \text{ CI } [.07, .38], ES = .15$ ).

#### *Direct effect of family relationship on child affect*

Parent-child conflict predicted increases in children's negative affect ( $B = .14, SE = .02, p < .001, 95\% \text{ CI } [.09, .18], ES = .14$ ) and decreases in children's positive affect ( $B = -.16, SE = .02, p < .001, 95\% \text{ CI } [-.20, -.11], ES = -.11$ ; see **Table 4**). Moreover, parental warmth predicted increases in positive affect ( $B = .15, SE = .02, p < .001, 95\% \text{ CI } [.11, .18], ES = .17$ ) and decreases in negative affect for children ( $B = -.04, SE = .01, p < .001, 95\% \text{ CI } [-.06, -.02], ES = -.07$ ).

#### *Mediation effect of family relationship on the link between employment status and child affect*

As shown in **Table 5**, parents who experienced job loss demonstrated increases in parent-child conflict, which in turn predicted decreases in child positive affect (indirect effect:  $B = -.02, SE = .01, p < .05, 95\% \text{ CI } [-.04, -.01]$ ) and increases in child negative affect (indirect effect:  $B = .02, SE = .01, p < .05, 95\% \text{ CI } [.01, .5]$ ). Furthermore, parents' WFH status predicted increases in parental warmth, which in turn predicted increases in child positive affect (indirect effect:  $B = .04, SE = .01, p < .01, 95\% \text{ CI } [.01, .07]$ ) and decreases in child negative affect (indirect effect:  $B = -.01, SE = .00, p < .05, 95\% \text{ CI } [-.02, -.01]$ ). The model fit the data well,  $\chi^2(6) = 80.93, p < .001, \text{RMSEA} = .05, \text{CFI} = .93, \text{SRMR}_{\text{within}} = .01, \text{SRMR}_{\text{between}} = .04$ .

#### *Moderation effect of socioeconomic status differences*

Although the means of our key constructs varied by family SES, family SES did not moderate the links between these constructs,  $\chi^2(12) = 8.82, p = ns$ .

#### **Discussion**

COVID-19 precipitated unparalleled social and economic disruptions in family life, exacting an especially heavy toll on low-income families [3]. Because of soaring unemployment rates and rapid, widespread transitions to WFH arrangements, it is imperative to understand how parents' employment status during the pandemic has influenced family relationships and children's emotional well-being. Using 15 consecutive days of dyadic parent-adolescent data, we found that parental employment changes (i.e., job loss and WFH) influenced family relationships (i.e., parent-adolescent conflict and parental warmth), and family relationships were connected to adolescents' daily positive and negative affect. Family relationships also mediated longitudinal links between parents' employment status and daily affect among adolescents. These findings not only highlight family factors shaping adolescents' affective states but they also reveal psychosocial consequences of parental job loss and WFH arrangements during COVID-19.

Our results suggest that family stress processes may underlie associations between parental job loss and curtailed family functioning. Indeed, numerous studies have indicated that heightened economic pressure incites parental distress that foments harsh parenting and increased antagonism between parents and children [9,22,23]. For example, recent work has indicated that parents who experience COVID-related job losses

**Table 2**

Descriptive statistics and zero-order bivariate correlations among key constructs

Variable	1	2	3	4	5	6	7	Mean (S.D.)				
Within-Person												
1 Day	1							8.00 (4.32)				
2 Weekend	.28**	1						.26 (.44)				
3 Child positive affect	-.03*	-.01	1					3.24 (1.05)				
4 Child negative affect	-.04**	-.01	-.18**	1				1.56 (.75)				
5 Parent-child conflict	-.08**	-.03**	-.06*	.37**	1			1.36 (.61)				
6 Parental warmth	-.05*	.05**	.53**	-.15**	-.04**	1		2.97 (1.04)				
7 Parent psychological distress	-.03*	-.03*	-.13**	.32**	.23**	-.09**	1	1.49 (.65)				
Between-Person												
1 Low-income family	1							.62				
2 Parent lost job	.10**	1						.20				
3 Parent work from home	-.34**	-.32**	1					.58				
4 Child's age	-.12**	-.10**	.10**	1				15.09 (1.66)				
5 Male child versus female child	-.01	.09**	.02	-.18**	1			.39				
6 Black child versus white child	.34**	-.02	-.16**	-.14**	-.03*	1		.45				
7 Other race child versus white child	-.06**	.09**	.11**	-.04**	.09**	-.47**	1	.22				
8 Father versus mother	-.04**	-.08**	.04**	.10**	-.02	-.08**	.12**	1	.13			
9 Black parent versus white parent	.36**	.01	-.18**	-.13**	-.03**	.89**	-.32**	-.02	1	.46		
10 Other race parent versus White parent	-.09**	.09**	.11**	-.05**	.07**	-.33**	.70**	.04**	-.42**	1	.17	
11 Prior parent-child relationship	.06**	.03*	-.09**	-.10**	.07**	.14**	-.07**	-.01	.12**	-.09**	1	4.22 (.91)

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

were nearly five times more likely to psychologically abuse their children [24]. Family economic stress related to job loss also imperils the family system by stimulating coercive family relations [25,26].

Unlike job loss, we found that WFH was connected to increased parental warmth. It is likely that WFH helped parents to minimize COVID-19 infection risks and supervise children themselves during school closures, thereby alleviating the stress of grappling with alternative childcare arrangements or being unable to monitor children during remote schooling. Additional protective factors related to WFH (e.g., financial stability, job security, professional autonomy, schedule flexibility) may have buffered parents against psychological distress and allowed them to avoid decompensating parenting behaviors [27,28]. Some parents have even reported finding emotional respite in spending more time with their children during the pandemic [29]. Despite the stress of integrating family and professional life resultant from unexpected transitions to WFH, such working arrangements may confer

protection and contribute to family resiliency via the opportunity for increased warmth and togetherness.

Consistent links between family relationships and adolescents' emotional well-being also emerged in our analyses. Family systems research emphasizes the importance of nurturing and supportive parenting for youth's affective states [30,31]. Parent-adolescent conflict has been shown to decrease adolescents' use of parental social supports in times of crisis, ultimately deteriorating relationship quality and posing negative consequences for adolescent's emotional well-being [25,32]. High, stable parental warmth may therefore act as an efficacious protective factor against negative affect and distress arising from family stressors (e.g., parental job loss) [1,33].

Although family economic status did not moderate the direct effects of parental employment status or the mediation effects of family relationships on adolescent affect, our findings nonetheless have major implications for economically disadvantaged families. In our sample, low-income families were 67% less likely to enter WFH arrangements and twice as likely to experience job

**Table 3**

Mean group differences by family income

Key variable	Low-income household 62% of analytic sample	Middle-high income household 38% of analytic sample	Independent samples t-tests/ $\chi^2$ test comparisons
Child positive affect	3.24 (1.08)	3.22 (1.01)	t (5,468) = .73, $p = \text{ns}$
Child negative affect	1.55 (.78)	1.56 (.70)	t (5,692) = .60, $p = \text{ns}$
Parent-child conflict	1.39 (.65)	1.32 (.53)	t (6,073) = 4.66, $p < .001$
Parental warmth	2.95 (1.08)	3.00 (.97)	t (5,767) = 2.12, $p < .05$
Parent psychological distress	1.52 (.70)	1.45 (.57)	t (6,140) = 4.73, $p < .001$
% Parent lost job	23.90	12.70	$\chi^2$ (1) = 95.53, $p < .001$
% Parent work from home	44.00	73.40	$\chi^2$ (1) = 26.19, $p < .001$
Child's age	14.93 (1.64)	15.34 (1.66)	t (447) = 2.56, $p < .05$
% Male child versus female child	38.80	39.80	$\chi^2$ (1) = .04, $p = \text{ns}$
% Black child versus white child	57.60	22.80	$\chi^2$ (1) = 51.83, $p < .001$
% Other race child versus white child	19.90	25.10	$\chi^2$ (1) = 1.68, $p = \text{ns}$
% Father versus mother	11.80	14.40	$\chi^2$ (1) = .64, $p = \text{ns}$
% Black parent versus white parent	60.00	23.60	$\chi^2$ (1) = 57.35, $p < .001$
% Other race parent versus white parent	14.30	21.30	$\chi^2$ (1) = 3.71, $p = \text{ns}$
Prepandemic parent-child relationship	4.16 (.96)	4.33 (.82)	t (402) = 2.04, $p < .05$

**Table 4**

Direct effect of family employment status and family relationship on child affect

Predictor	Child positive affect	Child negative affect	Parent-child conflict	Parental warmth
Within person				
Day	-.01 (.00)**	-.01 (.01)		
Weekend	-.02 (.02)	.01 (.01)		
Parent-child conflict	-.16 (.02)***	.15 (.02)***		
Parental warmth	.15 (.02)***	-.04 (.01)***		
Between person				
Low-income family	-.04 (.08)	.06 (.06)*	.10 (.05)*	.03 (.08)
Lost job	-.11 (.10)	.37 (.10)***	.15 (.07)*	.04 (.11)
Work from home	.06 (.07)	.04 (.06)	.09 (.05)	.23 (.08)**
Child age	-.02 (.02)	.05 (.02)**	-.01 (.02)	-.07 (.02)**
Child boy versus girl	.01 (.07)	-.19 (.06)**	.02 (.05)	-.09 (.07)
Black child versus white child	-.12 (.21)	-.20 (.16)	-.02 (.10)	-.27 (.18)
Other race child versus white child	-.04 (.16)	-.13 (.11)	-.07 (.06)	-.06 (.13)
Father versus mother	-.03 (.10)	.03 (.10)	-.05 (.05)	.04 (.10)
Black parent versus white parent	.34 (.21)	.03 (.15)	-.02 (.09)	.23 (.17)
Other race parent versus white parent	.05 (.16)	.03 (.11)	-.01 (.08)	.27 (.15)
Prior parent-child relationship	.02 (.05)	-.02 (.05)	-.14 (.04)***	.37 (.05)***

\*p &lt; .05, \*\*p &lt; .01, \*\*\*p &lt; .001.

loss than families with more economic resources. Our results also show that levels of parent-adolescent conflict were higher among low-income families. Low-income families are more likely to work in hourly and essential service sector jobs, and during the pandemic, these families were more vulnerable to layoffs and furloughs and less likely to WFH as compared with office-based, white-collar roles [3,34]. Furthermore, many economically disadvantaged parents who escaped job loss during the pandemic worked in essential roles (i.e., “essential workers”) that required them to place themselves at risk for COVID-19 infection. These contextual hardships can quickly accumulate in ways that undermine family functioning and emotional well-being [2,4,9,35]: As job loss foments negative family relationships and WFH fosters parental warmth, economically disadvantaged families confront more contextual adversities and less access to protective factors.

### Limitations

This work is a first step into understanding family dynamics and adolescent emotional well-being within the context of a pandemic-related economic crisis. Although this longitudinal study highlights the key role family relationships play in linking

COVID-19's economic impacts to adolescents' emotions, these data were collected during the nascent stages of the pandemic. As family well-being may change over the course of the pandemic, future studies should investigate whether and how our findings persist, attenuate, or strengthen over time. In addition, researchers should focus on increasing generalizability by using more racially proportionate, geographically diverse samples, as our nationwide sample was not representative of the national population, nor could these results be applied to youth from states where stay-at-home orders were not enacted. Because the daily-diary assessment occurred once per day for 15 days, future studies should consider collecting information about the within-day sequencing of events over a longer period of time. In addition, we did not use multidimensional or clinical scales to measure family dynamics or psychological adjustment as a means of minimizing daily participant burden.

As is the case in all nonexperimental research, we cannot firmly establish causal relationships among the patterns of associations observed in this study, nor can we definitively attribute changes in children's emotional states to parent-child relational dynamics. Children's characteristics and parenting are often reciprocally related. Analyzing extensive longitudinal data collected over an extended period of time in a cross-lagged

**Table 5**

Direct and indirect effects of family employment status and family relationship on child affect

Predictors	Child positive affect outcome				Child negative affect outcome			
	Parent-child conflict as the mediator		Parental warmth as the mediator		Parent-child conflict as the mediator		Parental warmth as the mediator	
	B (SE)	95% CI	B (SE)	95% CI	B (SE)	95% CI	B (SE)	95% CI
Parent lost job → Mediator	.15 (.07)*	.01, .29	.05 (.11)	-.16, .26	-	-	-	-
Mediator → child affect	-.16 (.02)***	-.20, -.11	.15 (.02)***	.11, .18	.14 (.02)***	.09, .18	-.04 (.01)***	-.06, -.02
Parent lost job → child affect	-.09 (.10)	-.29, .10	-	-	.28 (.09)**	.11, .46	-	-
Parent lost job → mediator → Outcome	-.02 (.01)*	-.04, -.01	.01 (.02)	-.03, .05	.02 (.01)*	.01, .05	.00 (.01)	-.01, .01
Parent lost job → child affect	-.06 (.11)	-.28, .16	-	-	.39 (.10)***	.20, .59	-	-
Parent works from home (WFH)								
WFH → mediator	.09 (.05)	-.01, .19	.23 (.08)**	.07, .38	-	-	-	-
Mediator → outcome	-.16 (.02)***	-.20, -.11	.15 (.02)***	.11, .18	.14 (.02)***	.09, .18	-.04 (.01)***	-.06, -.02
WFH → outcome	.06 (.07)	-.08, .21	-	-	-.01 (.06)	-.13, .10	-	-
WFH → mediator → outcome	-.01 (.01)	-.03, .01	.04 (.01)**	.01, .07	.01 (.01)	-.01, .03	-.01 (.00)*	-.02, -.01
WFH → outcome	.23 (.09)*	.04, .41	-	-	.02 (.07)	-.11, .15	-	-

\*p &lt; .05, \*\*p &lt; .01, \*\*\*p &lt; .001.

panel framework could yield additional insights about the direction of effects. Relatedly, we cannot rule out the possibility that other parental characteristics (e.g., parenting style) contributed to family processes. Future research may benefit from assessing other dimensions of family relationships or parental characteristics as potential moderators or mediators and using prepandemic comparison data to determine differences in prepandemic and peripandemic parenting. Researchers interested in continuing this line of inquiry should also incorporate clinical evaluations to explore adolescents' psychological well-being during COVID-19 more thoroughly.

Using multiinformant daily-diary data with a racially and socioeconomically diverse U.S. sample, this study showed that COVID-19's effect on parental employment status shaped family processes which in turn influenced adolescent emotional adjustment. With emerging evidence showing increased mental health issues among U.S. adolescents during COVID-19 [36], the need for research that identifies key risk and protective factors for youth well-being persists. The American Academy of Pediatrics policy guidance emphasizes the central role pediatricians play in promoting children's socioemotional health, and researchers and policy makers continue to advocate for mental health screening and referrals in schools [37,38]. Clinicians and schools can screen youth for signs of psychological distress and support parents by providing information about best practices for managing stress, dealing with family conflict, and meeting their children's emotional needs.

More broadly, a multipronged policy response is needed to address the negative societal impacts fueled by COVID-19 [39]: At-risk families need substantive financial and health supports that stabilize income for parents who lost their jobs and increase access to school and community-based socioemotional supports. Although flexible and remote work options are not feasible for all working parents, public policies and workplace benefits that buoy parental well-being, such as paid time off, livable wages, and adequate health care, may improve the quality—if not the quantity—of parents' time with their children, thereby enhancing adolescent emotional well-being [40]. By focusing on macrostructural factors and family-level processes, policy makers and practitioners can promote adolescents' well-being, even in the face of a pandemic.

## Supplementary Data

Supplementary data related to this article can be found at <https://doi.org/10.1016/j.jadohealth.2021.07.016>.

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