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# Actor–Partner Model of Parenting and Co-Parenting Practices and Youth Resilience During the COVID-19 Pandemic

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## ABSTRACT

The present research examined parents' perspectives of co-parenting and supportive and hostile parenting as predictors of youth resilience during the COVID-19 pandemic. Participants were 47 mother/father dyads who had at least one K-12 child ( $M_{age} = 11.40$ ,  $SD = 3.92$ ). Mothers and fathers each completed an online survey that measured parenting, co-parenting, and youth resilience during the pandemic. Data were analyzed using the actor–partner interdependence model. Results revealed a positive relationship between mother supportiveness and perceived youth resilience; in contrast, increased father supportiveness was associated with lower perceived youth resilience. For both mothers and fathers, increases in their own hostility were associated with decreased perceived youth resilience and more positive co-parenting predicted greater resilience. Overall, findings showed that maternal supportiveness, parent hostility, and co-parenting were significantly related to youth resilience during the COVID-19 pandemic. This study highlights the role of maternal supportiveness in youth resilience and the importance of including mother and father perspectives when examining the effects of parenting. Findings also have implications for family interventions and policies that facilitate youth resiliency by demonstrating the need to address both parent–child and co-parenting relationships during times of adversity.

## 1 | Introduction

To date, there have been more than 750,000,000 cases of COVID-19 infection and nearly 7,000,000 deaths worldwide as a result of COVID-19 (World Health Organization 2023). Along with coping with grief and loss (Zhai and Du 2020), the closing of schools and non-essential businesses, stay-at-home orders, and social distancing led to disruption to daily routines, increased socioeconomic difficulties, and feelings of loneliness and social isolation (Buecker and Horstmann 2021; Eales et al. 2021). Consequently, families have experienced a notable decline in physical, psychological, and financial well-being

throughout the pandemic (Patrick et al. 2020). This is especially apparent among households with children, who report higher rates of food insecurity, greater difficulties affording housing, and more frequent loss of employment relative to those without children (Monte and O'Donnell 2020). Households with children have also faced unique stressors associated with online learning, including lack of access to educational resources and reliable internet (McElrath 2020) and balancing work demands with children's schooling needs (Freisthler et al. 2021).

The burden on families has posed a significant threat to youth well-being (Marques de Miranda et al. 2020; Patrick et al. 2020;

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Samji et al. 2022). In a survey of parents throughout the United States, about 14% of parents indicated a decline in their child's behavioral health during the pandemic (Patrick et al. 2020). Research also demonstrates a rise in anxiety and depression, heightened symptoms of post-traumatic stress and increased suicidal ideation among children and adolescents (Marques de Miranda et al. 2020; Samji et al. 2022). Not all youth, however, have experienced declines in well-being to the same degree, and some have maintained well-being despite the challenges of the pandemic (Marques de Miranda et al. 2020). As families spent more time together in the home and parents undertook more childcare responsibilities, family processes may be particularly important for understanding why some children have been able to maintain well-being during the pandemic (Cimke and Yildirim Gurkan 2022; Kerr et al. 2021; Mayol-García 2022; McElrath 2020). The present research investigated the impact of family processes—namely, parenting and co-parenting practices—on youth resilience during the pandemic. Examining the factors that contribute to resilience during the pandemic can guide ongoing efforts to address the negative effects of the pandemic and inform future efforts aimed at promoting youth well-being (Masten and Motti-Stefanidi 2020; Prime et al. 2020; Stark et al. 2020).

## 1.1 | Family Systems and Resilience

Resilience can be broadly defined as the ability to cope with and adapt to threats to healthy development (Masten 2016). Systems approaches to resilience posit that resilience is the product of dynamic and interrelated systems within the individual and their environment (Masten 2015, 2016). From this perspective, resilience is not a fixed trait; rather, resilience can change over time depending on the functioning of the systems in which development occurs (Masten 2015, 2016). Resilience research and theory suggest that one key factor in promoting youth resilience is the family system (Masten and Palmer 2019; Newland 2014). Research on natural (e.g., flooding) and manmade (e.g., wars) disasters has shown that, within the family system, parents play a particularly important role in attenuating the negative effects of adversity on youth well-being (Bokszczanin 2008; Costa et al. 2009; Masten and Motti-Stefanidi 2020; Masten and Palmer 2019; Pfefferbaum et al. 2015). For instance, studies have found that a positive parent–child relationship is associated with less anxiety in the aftermath of Hurricane Katrina (Costa et al. 2009), fewer PTSD symptoms after a disastrous flood (Bokszczanin 2008), and fewer mental health and behavioral problems among youth exposed to community violence (Dinizulu et al. 2013). Given the parallels between disaster and the mass devastation caused by the pandemic, parenting may similarly influence youth well-being throughout the pandemic (Masten and Motti-Stefanidi 2020; Prime et al. 2020).

## 1.2 | Parenting and Co-Parenting Practices

Parents have demonstrated increased burnout (Kerr et al. 2021), heightened stress (Carroll et al. 2020; Freisthler et al. 2021), and an overall decline in mental health (Patrick et al. 2020) due to the demands of parenting during the pandemic. Theories of family stress, such as the family stress model (Conger et al. 2000), posit

that when families are faced with a stressor that disturbs the steady state of the family, they must adapt to maintain homeostasis. In the absence of internal and external resources, parenting relationships and behaviors will suffer, in turn negatively impacting youth outcomes. Drawing on existing developmental theories (Carr 2015), Prime et al. (2020) proposed a framework describing the process through which the pandemic shapes youth well-being via the parent–child relationship. According to Prime et al. (2020), the burden of the pandemic on parents increases the risk for unhealthy parenting practices, such as harsh punishment. These parenting practices can then deteriorate the parent–child relationship and hinder the child's ability to adapt to the stress of the pandemic (Prime et al. 2020). Similarly, the stress of the pandemic can create new problems, exacerbate existing problems, and increase conflict between parents (Prime et al. 2020). The impaired co-parent relationship can subsequently disrupt family processes and the functioning of other family members, including children (Cox and Paley 2003; Prime et al. 2020).

Congruent with Prime's (2020) framework, studies have shown that parental stress during the pandemic is linked to increased use of negative parenting practices (Chung et al. 2022; Lucassen et al. 2021), and that negative parenting practices are related to more mental and behavioral health concerns among children (Fosco et al. 2022). Research has also found that parental stress has led to decreases in co-parenting quality and increases in co-parenting conflict during the pandemic (Lucassen et al. 2021; Peltz et al. 2021). Despite these findings, there remain several important gaps in the literature that warrant further investigation. First, although research has illustrated changes to the co-parenting relationship during the pandemic, research on the consequences of such changes is limited. Second, research thus far has largely focused on the harmful effects of negative parenting, and less attention has been paid to the protective effects of positive parenting during the pandemic. Understanding youth resilience requires not only an examination of parenting risk factors that undermine well-being but also parenting strengths that protect it (Newland 2014).

### 1.2.1 | Parent Gender

Within households comprising mother–father dyads, mothers have been disproportionately burdened by the increased demands on parents throughout the pandemic (Dunatchik et al. 2021). Indeed, mothers were about three times more likely than fathers to not work during the pandemic due to childcare demands (Heggeness and Fields 2020). Even when employed, mothers were primarily responsible for childcare (Dunatchik et al. 2021) and experienced a more drastic increase in time spent supervising children relative to fathers (Lyttelton et al. 2022). In tandem, mothers have demonstrated greater depression, greater anxiety, and parental burnout than fathers (Feinberg et al. 2022a, 2022b; Kerr et al. 2021) and are more likely to report that their emotional distress affects their parenting (Kerr et al. 2021). Accordingly, research on the parent–child relationship during the pandemic has largely focused on mothers (Skinner et al. 2021; Vargas Rubilar et al. 2022) and has not fully considered the imperative role of fathers in child resilience (Cabrera et al. 2009; O'Gara et al. 2020). Given the imbalance in

childcare responsibilities, evaluating the unique effects of mothers' and fathers' parenting practices during the pandemic seems especially crucial.

## 2 | The Present Research

The present research was a pilot study designed in collaboration with local community organizations to better understand the impact of the COVID-19 pandemic on a community in the Midwest, with a particular focus on family dynamics. We evaluated the effect of mothers' and fathers' parenting and co-parenting practices on youth resilience during the COVID-19 pandemic using the actor-partner interdependence model (APIM), a recommended approach for analyzing dyadic data within families (Kashy et al. 2004; Kenny 2018; Kenny and Ledermann 2010). This analytic approach allowed us to determine how parents' perspectives (mother and father) of their own parenting and co-parenting practices relate to their own perspective of their child's resilience and explore whether parents' perspectives of their child's resilience is related to the other parent's parenting and co-parenting practices. Drawing on Masten's (2016) systems approach to resilience—which suggests that resilience can be inferred through observable positive outcomes despite experiences of adversity—and in line with prior research on resilience after disaster, the present research measured youth well-being as an indicator of resilience (Pfefferbaum et al. 2015; see also Zolkoski and Bullock 2012). We had two core hypotheses.

**Hypothesis 1.** *Parental support and co-parenting will have a positive relationship with youth resilience, and parental hostility will have a negative effect on youth resilience (actor effects).*

**Hypothesis 2.** *One parent's support and co-parenting will be positively related to the other parent's perception of youth resilience, and that one parent's hostility will be negatively related to the other parent's perception of youth resilience (partner effects).*

Finally, given the distinct burdens placed on mothers and fathers during the pandemic (Dunatchik et al. 2021), we sought to test the following research question regarding the role of parent gender in the link between parenting practices and co-parenting and youth resilience.

*Research Question 1:* Do the actor and partner effects of parent support, parent hostility, and co-parenting on youth resilience differ for mothers and fathers?

## 3 | Method

### 3.1 | Participants

Participants were parents (76 families, 123 individual participants) of children residing in a small Midwest community. Participants were recruited by convenience sampling via community partners (e.g., schools, human service agencies), flyers, word of mouth, and social media. To be eligible to participate, parents had to be the adoptive or biological parent of at least one child in K-12 residing in the community from which recruitment occurred. This age range enabled recruitment of an adequate

sample of parents, as a restricted age range limited the number of eligible parents within the small community where the study took place. Both mothers and fathers were invited to participate<sup>1</sup>. Of the 76 families recruited, 47 included surveys from both the mother and father. Among those parent dyads, 40 (85%) were married to one another. In line with the requirements of the actor-partner interdependence model (APIM), analyses only included the 47 dyads in which both mothers ( $M_{age} = 40.15$ ,  $SD = 6.61$ ) and fathers participated ( $M_{age} = 41.54$ ,  $SD = 6.92$ ; Kenny et al. 2006; Tambling et al. 2011). See Table 1 for parent demographics.

### 3.2 | Procedures

Recruitment materials listed eligibility criteria and provided the university website that contained information about the project and a submission form where interested participants could provide their contact information (i.e., phone number and email address). Potential participants were then contacted via phone to complete a screening process to ensure eligibility. After screening, participants were sent a 30-min online Qualtrics survey about parenting practices and youth resilience during the COVID-19 pandemic. For the sake of consistency and to minimize potential bias in selecting a focal child, all participants were asked to complete the survey about their oldest child in

**TABLE 1** | Sample characteristics.

	Mothers	Fathers
Race		
White or Caucasian	47 (100%)	43 (91%)
Black or African American	—	1 (2%)
Asian	1 (2%)	2 (4%)
Alaska Native	—	1 (2%)
Education		
High school degree/GED or Less	1 (2%)	5 (11%)
Some college	6 (13%)	12 (26%)
College graduate	19 (40%)	10 (21%)
Professional/advanced degree	21 (45%)	20 (43%)
Relationship status		
Single	—	1 (2%)
Married	42 (89%)	41 (82%)
Not married, living together	—	1 (2%)
Divorced	3 (6%)	3 (6%)
Other	2 (4%)	1 (2%)
Relationship to child		
Adoptive parent	4 (9%)	4 (9%)
Biological parent	43 (91%)	43 (91%)

*Note:* Percentages in parentheses may add to less than 100% due to rounding. Participants selected all that applied for race.

K-12 ( $M_{age} = 11.40$ ,  $SD = 3.92$ ). All participants were administered an electronic consent form prior to the survey. Upon completion of the survey, participants were compensated with a \$30 gift card. All study procedures and materials were approved by Clarke University's Institutional Review Board.

### 3.3 | Measures

#### 3.3.1 | Parenting

Parenting practices were assessed using the multidimensional assessment of parenting scale (MAPS), a validated measure designed to assess parenting across developmental stages (Parent and Forehand 2017). Parental supportiveness was measured using the three-item supportiveness subscale (e.g., "I encourage my child to talk about his/her problems"). Parental hostility was measured using the seven-item hostility subscale (e.g., "I use threats as punishment with little or no justification"). Items were averaged into one supportiveness variable (father  $\alpha = 0.80$ , mother  $\alpha = 0.67$ ) and one hostility variable for each parent (father  $\alpha = 0.83$ , mother  $\alpha = 0.83$ ). Higher scores indicate higher levels of supportiveness and hostility.

#### 3.3.2 | Co-Parenting

Co-parenting practices were measured using 12 items from the Coparenting Relationship Scale (Feinberg et al. 2012). Items assessed closeness, agreement, and supportiveness between co-parents; endorsement and undermining of the co-parent's parenting; and division of labor between co-parents on a scale of 1 = *Not true of us* to 6 = *Very true of us*. Example items include: "My parent and I have the same goals for our child" and "My partner asks my opinion on issues related to parenting." Items were averaged into one co-parenting variable for each parent (father  $\alpha = 0.90$ , mother  $\alpha = 0.93$ ). Higher scores indicate more positive co-parenting.

#### 3.3.3 | Youth Resilience

Resilience was measured using the KINDL<sup>R</sup>—Parent Version (Ravens-Sieber and Bullinger 2000). The KINDL<sup>R</sup> contains 24 items, with four items assessing each of the following constructs: physical well-being (e.g., "My child felt strong and full of energy"), emotional well-being (e.g., "My child has fun and laughed a lot"), self-esteem (e.g., "My child was proud of themselves"), family (e.g., "My child got on well with us as parents"), friends (e.g., "My child was liked by other kids"), and schooling (e.g., "My child enjoyed their school lessons"). All items were on a 5-point response scale (1 = *Never*; 5 = *All the time*). Scores were averaged into one total resilience variable for mothers ( $\alpha = 0.90$ ) and fathers ( $\alpha = 0.92$ ), with higher scores indicating greater perceived youth resilience.

#### 3.3.4 | Sociodemographic Variables

Parent gender was measured through one self-report item (coded as 1 for fathers and -1 for mothers as suggested by

APIM). We also evaluated five potential control variables that may be related to parenting practices and/or youth resilience (Conger et al. 2010; Sun and Stewart 2012; De Van Holland Graaf et al. 2018): child age, total number of children in the home, child gender (coded as 0 for female and 1 for male), and parents' approximate yearly household income. Possible responses for approximately yearly household income included: \$0–10,000; \$10,001–20,000; \$20,001–30,000; \$30,001–40,000; \$40,001–50,000; \$50,001–60,000; \$60,001–70,000; \$70,001–80,000, and \$80,001+. Given the distribution for yearly household income was extremely left skewed with 70.2% reporting more than \$80,000, it was dichotomized at \$80,000 (\$80,000 or less = 0, more than \$80,000 = 1).<sup>2</sup> The total number of children in the home was dichotomized as only child (coded as 0) versus multiple children (coded as 1).

### 3.4 | Analytic Plan

First, bivariate correlations were conducted for all primary study variables, and paired *t*-tests were used to compare variables between mothers and fathers. Next, the actor-partner interdependence model (APIM) was used to analyze the dyadic data of mothers and fathers (Kenny et al. 2006; Tambling et al. 2011). APIM allowed us to examine the effects of an individual's parenting characteristics on their own perceptions of their child's resilience (i.e., the actor effect) as well as the effect of their partner's parenting characteristics on their perception of their child's resilience (i.e., the partner effect). All quantitative predictor variables included in the APIM, as well as the outcome of resilience, were Z-scored based on the grand mean and SD of all participants to provide standardized estimates and effect sizes. Linear mixed models (i.e., multilevel models) were used to estimate the APIM parameter estimates using the maximum likelihood method while accounting for dependence between dyad members.

Models were developed in stages. We began with the unconditional model to estimate the intraclass correlation (ICC) and measure dyadic dependence (Model 1), followed by models that explored control variables in relation to the outcome (Models 2 and 3). Next, we developed three APIM models: A model that added the actor and partner effects (Model 4), followed by a model that added all two-way interactions for the actor and partner effects with parent gender (Model 5), and a model that excluded the nonsignificant two-way interactions (Model 6). The set of equations for Model 6 was as follows:

$$\begin{aligned} \text{Level 1: Resilience}_{ij} = & \beta_{0j} + \beta_1 (\text{child age}) + \beta_2 (\text{parent income}) \\ & + \beta_3 (\text{parent gender}) + \beta_4 (\text{actor supportiveness}) + \beta_5 (\text{actor hostility}) \\ & + \beta_6 (\text{actor co-parenting}) + \beta_7 (\text{partner supportiveness}) \\ & + \beta_8 (\text{partner hostility}) + \beta_9 (\text{partner co-parenting}) \\ & + \beta_{10} (\text{parent gender} * \text{actor supportiveness}) \\ & + \beta_{11} (\text{parent gender} * \text{actor hostility}) \\ & + \beta_{12} (\text{parent gender} * \text{partner supportiveness}) \\ & + \beta_{13} (\text{parent gender} * \text{partner hostility}) + r_{ij} \end{aligned}$$

$$\begin{aligned} \text{Level 2: } \beta_{0j} = & \gamma_{00} + u_{0j}, \text{ where } i = 1, 2 \text{ (for two parents)} \\ & \text{nested within } j = 1, 2, \dots, 47 \text{ family dyad units.} \end{aligned}$$



Model fit was assessed using reductions in  $-2 \text{ Log Likelihood}$  ( $-2\text{LL}$ ), Akaike's information criterion (AIC; Akaike 1974) and Bayesian information criterion (BIC; Neath and Cavanaugh 2012; Schwarz 1978), as well as a pseudo- $R^2$  (Nakagawa and Schielzeth 2013) to estimate the variance explained by the fixed effects alone; smaller values for AIC and BIC suggest better model fit. The  $\chi^2$  likelihood ratio test of differences was used to compare nested models. Linear combinations of the main and interaction effects were used to estimate and test the significance of the individual actor and partner effects for each parent from the models that included two-way interactions with parent gender. Analyses were conducted using SPSS 29.0.

## 4 | Results

### 4.1 | Preliminary Analyses

Descriptive statistics and bivariate correlations for all variables are in Table 2. There was no significant difference between mothers and fathers in average perceived youth resilience ( $t(46) = 1.17, p = 0.25$ ), hostility ( $t(46) = 1.17, p = 0.25$ ), and co-parenting ( $t(46) = 0.94, p = 0.35$ ). However, supportiveness was higher for mothers ( $M = 4.48, SD = 0.49$ ) than for fathers ( $M = 4.20, SD = 0.64; t(46) = -2.54, p = 0.02$ ). There were significant correlations between mothers' and fathers' scores for hostility ( $r = 0.44, p = 0.002$ ) and co-parenting ( $r = 0.49, p < 0.001$ ).

Table 3 provides the parameter estimates for Models 1–3. Model 1 partitioned the total variance in perceived resilience into within and between dyad components using a random intercept model. The ICC was estimated to be 0.71 for resilience (95% CI of 0.54–0.83), indicating the presence of dyadic dependence. Model 2 added potential control variables to the unconditional model: child age, child sex, number of children in the home, and parent income. Child sex ( $p = 0.10$ ) and the number of children in the home ( $p = 0.78$ ) were not significantly related to perceived resilience and were thus excluded from Model 3. Fit measures indicated that Model 3 was a better fitting model than Model 1 or Model 2, especially according to the AIC and BIC measures. Based on the pseudo- $R^2$ , these two control variables accounted for 25% of the variance in youth resilience.

### 4.2 | APIM

Table 4 provides the parameter estimates for three APIM models. In Model 4, two actor effects were significantly related to perceived youth resilience, irrespective of parent gender. More specifically, the actor effect of hostility was negatively related to the parent's perceived resilience ( $\beta = -0.40, 95\% \text{ CI} = -0.56 \text{ to } -0.25$ ), and the co-parenting actor effect was positively related to perceived resilience ( $\beta = 0.16, 95\% \text{ CI} = 0.01\text{--}0.32$ ). Based on the pseudo- $R^2$ , the actor and partner effects plus the control variables accounted for 52% of the variance in perceived resilience. No other actor or partner effects emerged in Model 4.

As shown in Table 4, four of the six interaction terms were significantly related to perceived resilience in Model 5. The two

effects that did not interact with parent gender were the actor effect of co-parenting ( $\beta = -0.16, p = 0.11$ ) and the partner effect of co-parenting ( $\beta = 0.17, p = 0.09$ ). Most of the measures of model fit suggested that Model 5 was a better fitting model than Model 4, including the likelihood ratio test ( $\chi^2(6) = 172.87\text{--}151.58 = 21.29, p = 0.002$ ), although the BIC measure was larger for Model 5 (233.36) than for Model 4 (227.39). Model 6 excluded the two nonsignificant interaction terms involving co-parenting, resulting in a better fitting APIM. Based on the pseudo- $R^2$ , the actor and partner effects, the four interaction terms with parent gender, and the control variables in Model 6 accounted for 65% of the variance in perceived resilience. The conditional ICC of Model 6 was 0.47.

Model 6 demonstrated significant interactions between supportiveness and parent gender for both the actor ( $\beta = -0.30, p < 0.001$ ) and the partner ( $\beta = 0.31, p < 0.001$ ). Using linear combinations of the parameter estimates shown in Model 6, the actor effect of supportiveness on perceived resilience was estimated to be positive for mothers ( $\beta = 0.30, 95\% \text{ CI} = 0.08\text{--}0.51, p = 0.01$ ) and negative for fathers ( $\beta = -0.31, 95\% \text{ CI} = -0.51 \text{ to } -0.10, p = 0.004$ ). For the partner effect of supportiveness, as father (the partner) supportiveness increased by one SD, mother perceived resilience decreased by 0.41 SD ( $\beta = -0.41, 95\% \text{ CI} = -0.61 \text{ to } -0.20, p < 0.001$ ). As mother (the partner) supportiveness increased by one SD, father perceived resilience increased by 0.22 SD ( $\beta = 0.22, 95\% \text{ CI} = 0.01\text{--}0.44, p = 0.045$ ).

There were also significant interactions between hostility and parent gender for both the actor ( $\beta = -0.21, p = 0.02$ ) and the partner ( $\beta = 0.18, p = 0.04$ ). The actor effect of hostility on perceived resilience was estimated to be negative for both parents, with the standardized estimate being larger for fathers ( $\beta = -0.67, 95\% \text{ CI} = -0.90 \text{ to } -0.45, p < 0.001$ ) than for mothers ( $\beta = -0.25, 95\% \text{ CI} = -0.47 \text{ to } -0.03, p = 0.02$ ). Likewise, a significant negative effect of father (partner) hostility on mother perceived resilience was found ( $\beta = -0.34, 95\% \text{ CI} = -0.57 \text{ to } -0.11, p = 0.004$ ). In contrast, there was not a significant effect of mother (partner) hostility on the father perceived resilience ( $\beta = 0.02, 95\% \text{ CI} = -0.20 \text{ to } 0.24, p = 0.84$ ). For co-parenting, there was a significant actor effect ( $\beta = 0.20, 95\% \text{ CI} = 0.05\text{--}0.34, p = 0.01$ ) meaning that for both mothers and fathers, as their own co-parenting score increased by one SD, their perception of their child's resilience increased by 0.20 SD. The co-parenting partner effect was not significantly different from 0 ( $\beta = 0.08, p = 0.27$ ).

## 5 | Discussion

The primary objective of the present study was to understand how co-parenting and individual (i.e., father and mother) parenting practices were related to youth resilience during the COVID-19 pandemic among families from a small Midwest community. Critically, our analytic approach used an actor-partner interdependence model to gain insight into mothers' and fathers' individual experiences of parenting and co-parenting during the pandemic, as well as the unique impact of their parenting and co-parenting practices on their child's well-being. Given that we found significant actor and partner effects, some of which depended upon parent gender, our results underscore the importance of including both mothers and fathers in research on

**TABLE 2** | Means, standard deviations, and bivariate associations.

	1	2	3	4	5	6	7	8	9	10	11	12
1. Father supportiveness	—											
2. Mother supportiveness	0.15	—										
3. Father hostility	−0.59***	−0.07	—									
4. Mother hostility	−0.24	−0.15	0.44**	—								
5. Father co-parenting	0.31*	0.26	−0.09	−0.04	—							
6. Mother co-parenting	0.22	0.11	−0.13	−0.45***	0.49***	—						
7. Child age	−0.23	0.07	0.23	−0.09	0.14	−0.08	—					
8. # Children in home	−0.22	−0.08	0.09	0.09	−0.04	0.06	−0.02	—				
9. Father reported income	0.07	0.18	0.08	0.01	0.19	0.27	0.05	0.18	—			
10. Mother reported income	−0.02	0.06	0.01	−0.17	0.21	0.52***	0.06	0.16	0.53***	—		
11. Child resilience—F	0.28	0.24	−0.61***	−0.23	0.16	0.33*	−0.41**	−0.001	0.27	0.31*	—	
12. Child resilience—M	0.02	0.27	−0.35*	−0.42**	0.07	0.51***	−0.41**	0.11	0.24	0.38**	0.72***	—
Mean (%)	4.20	4.48	2.30	2.21	5.93	5.76	11.40	(81)	(72)	(70)	3.97	3.90
SD	0.64	0.49	0.56	0.51	1.05	1.26	3.92				0.53	0.52

*Note:* M for mother and F for father. Point biserial correlations are reported for correlations between a quantitative variable and the binary variables of yearly household income categorized as \$80,000 or less (0) versus more than \$80,000 (1) and number (#) of children in the home categorized as only child (0) versus other children in the home (1). Phi coefficients are reported for correlations between two binary variables.

\* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ .

**TABLE 3** | Child resilience parameter estimates for control variables by model ( $N=47$  dyads).

Variable	Model 1: Unconditional model			Model 2: Control variables explored			Model 3: Control variables used		
	Estimate	SE	<i>p</i>	Estimate	SE	<i>p</i>	Estimate	SE	<i>p</i>
Intercept	−0.01	0.14	0.97	−0.11	0.33	0.74	−0.41	0.17	0.02
Child age				−0.40	0.11	0.001	−0.43	0.11	<0.001
Child sex				−0.38	0.23	0.10			
# Children in home				−0.08	0.28	0.78			
Parent income				0.54	0.19	0.005	0.57	0.19	0.003
Random effects									
Intercept variance for $u_{oj}$	0.71	0.18	<0.001	0.40	0.12	0.001	0.43	0.13	0.001
Residual variance for $r_{ij}$	0.29	0.06	<0.001	0.29	0.06	<0.001	0.29	0.06	<0.001
Fit measures									
−2LL	233.46			212.25			215.05		
AIC	239.46			226.25			225.05		
BIC	247.09			244.05			237.76		
Pseudo $R^2$ fixed effects	—			0.29			0.25		

Note: −2LL = −2 Log likelihood. Child sex was coded as 0 for females and 1 for males. Number of children in home indicator was coded as 0 for only child in home and 1 for multiple children in home. Yearly household income where \$80,000 or less coded as 0 and more than \$80,000 coded as 1. Abbreviations: AIC, Akaike's information criterion; BIC, Bayesian information criterion; SE, standard error.

the role of family processes in youth well-being during adverse times. Findings from this community-engaged research can also inform family interventions and policies that facilitate resiliency and prevent negative youth outcomes when future adversities arise.

Our hypotheses were partially supported. As expected, there was a significant actor effect for hostility, where higher levels of mother- and father-reported hostility toward the focal child were associated with lower mother- and father-reported youth resilience scores, respectively. Also congruent with our hypothesis (although we again only found actor effects), we found that when parents reported more amicable co-parenting relationships, they also reported that their children were more resilient. These findings replicate previous research demonstrating the negative effects of hostile parenting and the positive effects of healthy parenting and co-parenting on youth well-being in the face of adversity (Backman et al. 2021; Lucassen et al. 2021; Lunkenheimer et al. 2017; Peltz et al. 2021; Tucker et al. 2018).

We also found that several actor and partner effects varied by parent gender. First, there was a stronger, more consistent effect of father hostility on perceived youth resilience. The relationship between one's own hostility and perceived youth resilience was stronger for fathers than for mothers, and father hostility was associated with mother-reported youth resilience, while mother hostility was unrelated to father-reported youth resilience. Second, mother demonstrations of support

toward children were associated with increased mother- and father-reported youth resilience. Yet, contrary to our first hypothesis, the opposite was true for fathers: increased supportiveness from fathers was associated with decreased mother- and father-reported youth resilience. While our findings on mother-reported supportiveness align with prior research on the positive effects of supportive parenting and youth well-being (Buehler 2020; Chen et al. 2019), including during the pandemic (Brock et al. 2023), they suggest that the relationship between parent supportiveness and child resilience may be more complex among fathers.

One possible explanation for this finding is that the parents have differing perspectives on the role of fathers versus mothers during times of adversity, such that too much support from fathers toward their children may be seen as a hindrance to preparing them to face adversity. Therefore, while children are likely to benefit from the nurturing and support received by mothers when undergoing stress, it may be equally important that children are challenged by their fathers to problem-solve and to learn important skills that help them persevere (Patel et al. 2023). Findings may also be due to the quality of support offered by fathers. Research suggests that some fathers felt trapped and threatened by the increased expectations of parents during lockdown (Voellmy et al. 2024). Other research found that fathers were unconcerned about the burdens of parenting during the pandemic and only increased their involvement as a parent when mothers had reached their limits (Childress et al. 2024). These negative emotions,

**TABLE 4** | Child resilience APIM parameter estimates by model ( $N=47$  dyads).

Variable	Model 4: Actor and partner variables			Model 5: Interaction variables added			Model 6: Model 5 without nonsignificant interactions		
	Estimate	SE	<i>p</i>	Estimate	SE	<i>p</i>	Estimate	SE	<i>p</i>
Intercept	−0.28	0.15	0.06	−0.35	0.14	0.01	−0.41	0.13	0.002
Child age	−0.39	0.09	<0.001	−0.36	0.08	<0.001	−0.42	0.08	<0.001
Parent income	0.39	0.16	0.02	0.38	0.15	0.01	0.43	0.15	0.01
Parent gender	0.11	0.05	0.03	0.10	0.05	0.04	0.10	0.05	0.04
Actor effects									
Supportiveness	0.01	0.08	0.89	0.02	0.07	0.31	−0.01	0.07	0.93
Hostility	−0.40	0.08	<0.001	−0.43	0.07	<0.001	−0.46	0.07	<0.001
Co-parenting	0.16	0.08	0.04	0.19	0.07	0.01	0.20	0.07	0.01
Partner effects									
Supportiveness	−0.092	0.081	0.26	−0.06	0.07	0.39	−0.09	0.07	0.20
Hostility	−0.092	0.077	0.23	−0.12	0.07	0.10	−0.16	0.07	0.03
Co-parenting	0.05	0.07	0.47	0.07	0.07	0.34	0.08	0.07	0.27
Actor interactions									
Pgender*Supportiveness				−0.31	0.08	<0.001	−0.30	0.08	<0.001
Pgender*Hostility				−0.27	0.09	0.004	−0.21	0.09	0.02
Pgender*Co-parenting				−0.16	0.10	0.11			
Partner interactions									
Pgender*Supportiveness				0.32	0.08	<0.001	0.31	0.08	<0.001
Pgender*Hostility				0.25	0.09	0.01	0.18	0.09	0.04
Pgender*Co-parenting				0.17	0.10	0.09			
Random effects									
Intercept variance for $u_{oj}$	0.29	0.08	<0.001	0.15	0.06	0.01	0.16	0.06	0.01
Residual variance for $r_{ij}$	0.18	0.04	<0.001	0.18	0.04	<0.001	0.18	0.04	<0.001
Fit measures									
−2LL	172.87			151.58			154.61		
AIC	196.87			187.58			186.61		
BIC	227.39			233.36			227.30		
Pseudo $R^2$ fixed effects	0.52			0.67			0.65		

Note: Yearly household income where \$80,000 or less coded as 0 and more than \$80,000 coded as 1. Parent gender was coded as −1 for mothers and 1 for fathers. Abbreviations: −2LL = −2 Log Likelihood; AIC, Akaike's information criterion; BIC, Bayesian information criterion; Pgender, parent gender; SE, standard error.

reluctance, and feelings of obligation could have had spillover effects on parent–child interactions (Daks et al. 2022). The robust effect of fathers' hostile parenting on youth resilience also points to the possibility that father–child interactions may have been characterized by greater negativity than mother–child interactions.

Relatedly, the nature of support provided by fathers may also contribute to the distinct effects of mothers' and fathers' parenting (Yaffe 2020). While the parenting measure employed in this study has been previously validated for both mothers and

fathers, it is possible that fathers offered unique forms of support in response to the unprecedented challenges posed by the pandemic that were not adequately captured by the present research, potentially obscuring the benefits of supportive fathering during the pandemic. Lastly, it is important to note that the impact of father supportiveness on child resilience could be context specific; for instance, overall family dynamics and the child's individual characteristics could have shaped the effects of father supportiveness on child well-being during the pandemic (Daks et al. 2022; Torres et al. 2013; Trumello et al. 2022).



## 5.1 | Limitations and Future Directions

Several limitations suggest a cautious interpretation of results, as well as future directions. First, the sample consisted primarily of mother–father families who identified as White and middle class and were from a small Midwest community. While this research was intended to represent the members of this community—who are predominantly middle class, White, and heterosexual—future research efforts to include families from diverse cultural and socioeconomic backgrounds are warranted, especially given that these families are more likely to experience negative effects of the pandemic (Chen et al. 2022; Tai et al. 2021). Relatedly, although the full sample from which this study was drawn was larger, the number of complete parent dyads who could be included in analyses was small. Additional research with a larger number of parent dyads is needed to evaluate the generalizability of our findings outside of this small Midwest community and to further explore youth resilience using alternative approaches to statistical analysis that would be well suited for a larger sample of parents (e.g., structural equation modeling). Additionally, we included a wide age range of children in our study (5–18 years of age). Although we controlled for child age in our analytic models, further exploration on how parental support impacts resilience should be studied at various developmental stages to understand ideal levels and types of support needed by children. We also did not include measures of relationship quality between parents. Future studies should incorporate such measures to evaluate their influence on youth resilience, especially as it relates to co-parenting.

Finally, this study utilized cross-sectional parent-reported data. While this allowed us to initially establish unique connections between mothers' and fathers' perspectives on parenting and youth resilience, longitudinal research on youth outcomes over time would improve our understanding of the long-term impact of parenting during the pandemic. Longitudinal research could also help elucidate potential reciprocal, bidirectional relationships between parenting and youth resilience (Shaffer et al. 2013; Zvara et al. 2018). For example, it is possible that there is a bidirectional relationship between supportive parenting and youth resilience, where greater parent support promotes youth well-being and youth who are doing well are more likely to seek support from their parents. Research that includes both parent and youth reports is also needed, as youth reports can provide additional insight not captured through parent reports (Nazareth et al. 2018; Rescorla et al. 2013).

## 6 | Practical Implications

These findings could have implications for family interventions and policies that facilitate resiliency and prevent negative youth outcomes when future adversities arise. In particular, findings point to the importance of reducing parent hostility and increasing cohesion between parents during adverse times. Thus, professionals who work with families should focus on addressing harmful parenting practices while simultaneously promoting a positive co-parenting relationship. For instance, existing evidence-based interventions focused on parenting practices and parent–child relationships could incorporate strategies to

improve communication, supportiveness, and conflict resolution between co-parents (Branco et al. 2022; Feinberg et al. 2016, 2022a, 2022b; Jeong et al. 2021). Additionally, given the unique effects of fathering within the present research, it is also important that parenting and co-parenting interventions seek to sufficiently engage fathers within the therapeutic process (Pruett et al. 2019; Sicouri et al. 2018).

Nevertheless, the implementation of family interventions may be particularly difficult for families experiencing intense and complex stressors brought on by adverse events like the pandemic, such as economic hardship (Shelleby 2018), social isolation (Nowland et al. 2021), and increased caregiver burden (Lyttelton et al. 2022). Therefore, efforts to improve family processes, including the parent–child relationship and co-parenting dynamics, will require a multifaceted approach that incorporates micro-level clinical interventions (e.g., individual and family therapy) that address co-parenting issues and hostile parenting practices as well as larger systemic and macro-level interventions targeted at improving environmental factors known to impact parenting (e.g., economic stability, social/community support, access to health care and parenting interventions; Rosino 2016; Walker 2021).

## 7 | Conclusion

Despite these limitations, this pilot study provides valuable information about the role of parenting and co-parenting practices during the pandemic, which had not yet been studied within this community. Significant actor–partner effects, including unique effects among mothers and fathers, underscore the importance of including both mothers and fathers in research on child resilience, and the need to consider nuances in individual parenting practices within family processes. Our results also suggest that clinicians may foster youth resilience by helping parents to learn how to amicably co-parent during adversity. Increasing or developing a supportive relationship between parents may mitigate stress and lead to a reduction in harsh parenting practices that we found to impair resilience in the youth in our study. Finally, it is also important to acknowledge how social determinants of health and the environments in which families reside can impact parenting practices and ultimately youth well-being. Thus, macro-level policy and practice efforts that address poverty and access to healthcare, parenting, and social support services should be at the forefront of public health initiatives.

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### Conflicts of Interest

The authors declare no conflicts of interest.

### Data Availability Statement

Data and research materials are available on reasonable request to the corresponding author.

### Endnotes

<sup>1</sup> Both heterosexual and same-sex parent dyads were eligible to participate. However, no same-sex parent dyads contacted the researchers to participate.

<sup>2</sup>The percent of agreement between the mother and father dichotomous income categories is 81%, which closely aligns with the percent of married dyads.

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