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as well as to identify the risk and protective factors for adjustment among Chinese middle school students (7th graders, the first year in middle school). Different from most existing studies up to date during COVID-

During the pandemic, parents and children are spending more time together at home, and, as a result, children may turn to their parents for support and advice to manage COVID-related stress. Parenting style may “have a significant

A recent study with COVID-19 frontline healthcare workers in China showed an association that individuals with higher resilience were more likely to develop stress-related growth as traumatic events unfolded, and this stress-related growth further propelled greater resilience to cope with stressors over time, suggesting reciprocal relations between resilience and stress-related growth (Lyu et al., 2020). Wu and colleagues (2020) also suggested that the role of resilience on mental health difficulties outcomes tends to have a chain effect, in which individuals experiencing mental health difficulties may exhibit less resilience, and the resilience further predicts later mental health outcomes. We hypothesized that adolescents' resilience will be a mediating mechanism for the positive impact of authoritative parenting on adolescents' stress-related growth and mental health.

## 1.5 | Parent–child relationships and peer relationships on adolescents' mental health

The positive role of parent–child relationships and peer relationships on adolescents' mental health is well-documented (Cao et al., 2021; Mackin et al., 2017; Roach, 2018). For example, a study with Chinese adolescents (Li et al., 2020) and with Australian adolescents (Magson et al., 2020) found that youth with positive peer relationships had a decreased risk of mental health problems during COVID-



conflicts with my friends.”) aspects. Six items with negative quality were reverse coded for the overall score to reflect positive parent–child and peer relationships. The model fit of parent–child and peer relationship subscales were  $\chi^2 = 22.799/15.150$ ,  $df = 12/10$ ,  $CFI = 0.986/.993$ ,  $RMSEA = 0.056/.042$ , and  $SRMR = 0.031/.028$ .

#### 4.4 | e e e e e

Adolescents' mental health diffi

controlled. The model is considered to fit well if the comparative fit index (CFI) > 0.950, the root mean square error of approximation (RMSEA) < 0.650, and the standardized root mean square residual (SRMR) < 0.850 (Hancock & Mueller, 2013).

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### 6.1 | e e

In the current study, 83.0% of adolescents reported experiencing some or great stress-related growth (the mean of the overall score in PTGI-C-R > 2). Adolescents reported significantly higher mental difficulties at T2 than T1 (Mean Difference = 5.393,  $t(200) = 12.049$ ,  $p < .001$ ). Specifically, at T1, 4.85% ( $n = 10$ ) of the adolescents reported slightly elevated scores based on SDQ (15–17), 2.91% ( $n = 6$ ) reported high scores (18–19) indicating a high risk of clinically significant problems, and 6.31%

## 6.2 | e e e1 e e e e2

This model fitted very well,  $\chi^2(6) = 5.800$ , CFI = 1.000, RMSEA = 0.000, SRMR = 0.029 (see Figure 1). Authoritarian parenting at T1 significantly predicted mental health difficulties ( $\beta = .244$ , 95% CI [0.100–0.387],  $p = .001$ ) at T2, controlling for adolescent's gender and age. However, authoritative parenting at T1 was not a significant predictor for any adolescent outcomes at T2.

## 6.3 | e e e ee e - e e e e1 e

The mediation model showed a good model fit,  $\chi^2(10) = 13.890$ , CFI = 0.990, RMSEA = 0.044, SRMR = 0.033 (see Figure 2). Authoritarian parenting at T1 had a marginally significant indirect effect on adolescents' stress-related growth at T2 (indirect effect =  $-0.065$ , 95% CI [ $-0.136$  to  $-0.005$ ],  $p = .068$ ) via parent-adolescent relationship at T1. In specific, authoritarian



relationship with their parents were less likely to report stress-related growth, social connections, and resilience, but more likely to report mental health difficulties, suggesting that parent–adolescent relationship has long-term consequences on adolescents' adaptive adjustment following adverse events (Yuan et al., 2018; Zhou et al., 2019).

Similarly, authoritarian parenting also predicted poor peer relationships. As supported by the internal working model (Bowlby, 1969) and social learning theory (e.g., Russell et al., 1998





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