

RESEARCH ARTICLE

Strength-based parenting and stress-related growth in adolescents: Exploring the role of positive reappraisal, school belonging, and emotional processing during the pandemic

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Abstract

Introduction: Coronavirus disease 2019 (COVID-19) has changed the way families live, interact, and connect with others, resulting in higher levels of stress for many teenagers who struggle with the ongoing uncertainty and disrupted school and family life. The current study examined the psychosocial factors that influence the capacity of adolescents to grow through the stress of the COVID-19 pandemic.

Methods: The sample included 404 secondary school students ranging in age from 11 to 18 ($M = 14.75$, $SD = 1.59$; 50.2% female, 46.8% male, and 3% non-/other gendered or declined to answer) from an independent high school in Australia. Data were collected from a battery of questionnaires that assessed strength-based parenting (SBP) and the effect of three psychosocial factors (positive reappraisal, emotional processing, and school belonging) on stress-related growth.

Results: Structural equation modeling showed that (SBP) was significantly associated with stress-related growth (SRG). Positive reappraisal and emotional processing were also positively and significantly associated with SRG and mediated the effect of SBP on SRG. Moreover, school belonging was positively linked to positive coping, emotional processing, and SRG, as well as mediating the association of SBP with positive reappraisal, emotional processing, and SRG in adolescents during the pandemic.

Conclusions: The results show that teenagers can experience SRG during the COVID-19 pandemic, and adolescents adapting by engaging in constructive coping responses such as positive reappraisal and emotional processing is positively related to SRG.

KEYWORDS

COVID-19, positive education, strengths, stress-related growth, student wellbeing, youth mental health

1 | INTRODUCTION

On March 11, 2020, the World Health Organization (WHO) elevated the coronavirus disease 2019 (COVID-19) crisis to global pandemic status. Since then, the virus has continued to spread rapidly across the globe, infecting more than 188 million people and causing more than 4.05 million deaths at the time this paper was submitted (October 2021) (WHO, 2021). As daily routines and social connectivity have become increasingly disrupted by mounting restrictions, both the media and academic research have focused on the mental health of populations affected by the pandemic. Multiple studies have demonstrated increased stress and mental illness symptomatology in the general population when compared to prepandemic times, particularly in children and adolescents (any person aged between 10 and 19 years old; WHO, 2020) (Fisher et al., 2020;

Abbreviations: SBP, strength-based parenting; SRG, stress-related growth.

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Holmes et al., 2020; Wang et al., 2020). However, compelling research suggests that stress is not always a negative influence and that people, including children and adolescents, can grow and thrive as a result of times of stress (Ord et al., 2020; Vaughn et al., 2009; Waters, Allen et al., 2021).

When considering the capacity of a public health crisis to impede mental health, adolescents are a particularly vulnerable subset of the general population (Guo et al., 2020; Holmes et al., 2020; Perrin et al., 2009). Adolescence is a critical stage for identity formation (Allen & McKenzie, 2015; Crocetti, 2017), a period in which young people turn towards their peers to gain a sense of connection, belonging, and esteem (J. P. Allen & Loeb, 2015; Allen & Kern, 2017). Additionally, youth encounter a range of major milestones (Arnett, 2004) during their adolescence including school completion, workforce engagement, and autonomous decision-making, all of which have been adversely impacted by the pandemic (Arnett, 2004; Hawke et al., 2020).

It is not surprising, therefore, that the restrictions and disruptions stemming from the COVID-19 pandemic have compromised the mental health of young people (Hawke et al., 2020; UNICEF, 2020; Yeasmin et al., 2020; Zhou et al., 2020). For example, in Zhou et al.'s (2020) cross-sectional study of 8079 Chinese students aged 12–18 years, over one-third of the sampled population was experiencing depressive symptoms, anxiety symptoms, or a combination of both. Similarly, Schwartz et al. (2021) online survey of over 2000 12–18-year-old Alberta students found that 25% of participants were experiencing stress levels above critical thresholds and that these stress levels were significantly correlated to behavioral difficulties, such as inattention, sleep problems, and negative affect. These findings point to a need to attend to the mental health status of the adolescent population and underscore the importance of psychological wellbeing during the pandemic.

1.1 | A shift in focus

In many respects, the *negative* impacts of COVID-19 on young people's mental health have been the central focus of research (Hawke et al., 2020; Liang et al., 2020; Nearchou et al., 2020). What has received less research attention and is less well-documented is the degree to which the pandemic might result in *positive* mental health outcomes. Bruining et al. (2020) emphasize that if studies of COVID-19 continue to focus on morbidity, an understanding of how people cope and grow through this pandemic will not be achieved. This sentiment is echoed in the work of Waters, Algoe et al. (2021):

In times of intense crisis, such as COVID-19, it is understandable that research is heavily directed towards addressing the ways in which people are wounded and weakened. However, this need not come at the expense of also investigating the ways in which people are sustained and strengthened (p. 1).

While schools, offices, and shops have been closed, walks in nature have continued to be permitted, with recent research indicating that adolescents who spend more time engaging in outdoor activities during lockdowns experience smaller declines in subjective wellbeing and show greater resilience to COVID-19-related stress (Jackson et al., 2021). Increased family time, decreased daily stress, and a reduction in sensory stimulation are additional identified benefits of COVID-19, with these family, environmental, and lifestyle changes being linked to a decrease in child and adolescent mental illness symptoms and an improvement in wellbeing (Bruining et al., 2020; Dragun et al., 2021).

Consistent with the suggestions of Bruining et al. (2020), a handful of recent studies have begun to explore the potential for COVID-19 to have yielded positive impacts on adolescents' wellbeing. Hawke et al. (2020) found that more than 40% of their teen and early adult sample reported improved social relationships, greater self-reflection, and greater self-care during the COVID-19 pandemic. Waters, Cameron et al. (2021) found that school-aged children can experience growth during the global pandemic, primarily if they were taught well-being skills before schools shift to remote learning. Dragun et al. (2021) surveyed medical students before and after the COVID-19 lockdown in Croatia to examine any changes in lifestyle which could facilitate students' wellbeing. Results demonstrated that students felt more refreshed after a night's sleep during a lockdown. In response to calls for research to include positive hypotheses (Bruining et al., 2020; Waters, Cameron et al., 2021), coupled with recent findings that adolescents can experience growth and improvements in overall wellbeing during the pandemic (Dragun et al., 2021; Hawke et al., 2020; Waters, Allen et al., 2021), this study aims to examine the psychosocial factors that influence the capacity of adolescents to grow through the stress of the COVID-19 pandemic.

1.2 | Stress-related growth

Studies examining stress-related growth (SRG) are helpful when considering the potential for stressful and traumatic life events—such as the COVID-19 pandemic—to generate positive outcomes for individuals' wellbeing and mental health. SRG was first coined by Vaughn et al. (2009) as “the perception or experience of deriving benefits from encountering stressful circumstances” (p. 131). Vaughn et al. (2009) affirm that SRG is more than merely recovering from adversity. It is about *becoming more adaptive and resilient because of adversity*, and, in turn, SRG can be protective against future stressors. It is

suggested that growth from adversity occurs through a variety of psychological mechanisms, such as gaining a more profound sense of meaning, increasing one's acquisition of coping skills, gaining a broadened perspective, realizing one is stronger than one thought, and developing a more positive self-concept (Park, 2013; Park & Fenster, 2004).

Cross-sectional and longitudinal findings from traumatology, coping psychology, and adolescent psychology have further supported Vaughn et al.'s (2009) suggestion that adolescents can grow through adversity (Dolbier et al., 2010; Levine et al., 2008; Meyerson et al., 2011). For example, children and teens have been found to grow following experiences such as severe illness, including cancer (Currier et al., 2009), terrorist attacks (Laufer, 2006), natural disasters such as floods and earthquakes (Hafstad et al., 2010), death of a parent (Wolchik et al., 2009), war (Kimhi et al., 2010), abuse (Ickovics et al., 2006), minority stress (Vaughn et al., 2009), and even everyday stressors (Mansfield & Diamond, 2017). Combined, these studies provide evidence that adversity and stressful life events can be sources for positive growth in young people.

1.3 | Psychological mechanisms that may predict SRG

While it is evident that some individuals can and do grow from stressful life events, the fact that others do not cannot be ignored. Thus, research must consider the “how” of SRG: What psychosocial coping resources do individuals who grow from adversity possess or have available to them that those who suffer do not? Past research provides a good grounding on potential psychological factors to incorporate into the present study's conceptual model. Many previous studies have reinforced the importance of cognitive (positive reappraisal) and emotional resources (emotional processing) in supporting SRG (Dolbier et al., 2010; Mansfield & Diamond, 2017; Ullrich & Lutgendorf, 2002). More recently, Waters, Cameron et al. (2021) examined coping strategies that increased a student's likelihood of experiencing SRG when returning to school following a period of COVID-19 remote learning. They demonstrated that positive reappraisal, emotional processing, and strengths-use significantly predicted SRG. These factors are further described below to highlight how they can help adolescents face stressful events. The paper then goes on to lay out a hypothesized link between these two factors and SRG.

1.4 | Positive reappraisal

Positive reappraisal is an adaptive process in which an individual reconceptualizes adverse experiences as beneficial and meaningful by considering any advantages and growth that the negative experience may provide (Garland et al., 2011; Waters, Allen et al., 2021). Positive reappraisal sits in sharp contrast to the typical cognitive process of “rumination,” which involves repetitively thinking about the causes, implications, and consequences of adverse and stressful life events (Robinson & Alloy, 2003; Rood et al., 2012). While rumination has been associated with depression and anxiety in both adults and adolescents (Rood et al., 2012; Watkins, 2008), positive reappraisal has been shown to improve psychological wellbeing and decrease depressive symptoms (Garnefski et al., 2002; Helgeson et al., 2006). For example, in Rood et al.'s (2012) study of 160 adolescents aged 13–18, participants were instructed to think about a recent stressful event (e.g., a fight with a friend or the death of a loved one) using one of four experimentally induced cognitive strategies: rumination, positive reappraisal, distancing, and acceptance. Results showed that students in the positive reappraisal group experienced the most significant increase in positive affect and decrease in negative affect.

Positive reappraisal has also been illustrated to reduce distress and improve mental health outcomes across various crises, such as chronic illness, war, and rape (Helgeson et al., 2006; Sears et al., 2003). In Sears et al.'s (2003) longitudinal study, interviews and questionnaires were conducted with women diagnosed with early-stage breast cancer 3 and 12 months after medical treatment. Results demonstrated that positive reappraisal coping at study entry predicted positive mood and perceived health at 3 and 12 months and posttraumatic growth at 12 months.

While only one study to date has linked positive reappraisal to SRG in the context of COVID-19 (see Waters, Allen et al., 2021), Xie et al. (2020) did explore the link between optimism towards COVID-19 and depressive symptoms amongst 2330 grade 2–6 students. Results revealed that students who felt more optimistic about the pandemic scored significantly lower on the children's depression inventory-short form (CDI-S) than those who were not optimistic. Moreover, the reverse pattern was found in two student samples (Liang et al., 2020; Ye et al., 2020) during the COVID-19 crisis, whereby negative rumination (i.e., repeated negative thoughts about the virus) was related to higher distress levels.

Together, these studies indicate that having the capacity to reconstruct obstacles into opportunities via positive reappraisal can result in individuals experiencing positive emotions, decreasing negative emotions, and improving mental health outcomes and growth in response to traumatic experiences. This logic leads to the first hypothesis of the current study:

Hypothesis 1 – *Positive reappraisal in adolescents during COVID-19 will be positively related to SRG.*

1.5 | Emotional processing

Emotional processing is described as the technique of actively processing and expressing one's emotions during times of stress (Waters, Allen et al., 2021). An indirect source of evidence for the adaptiveness of emotional processing is highlighted when examining the maladaptive consequences of emotional avoidance or suppression. For example, in Nezlek & Kuppens (2008) study, participants were asked to describe how they regulated their emotions daily for 3 weeks. Those participants who regulated positive and negative emotions via suppression (inhibiting the expression of the emotion) experienced decreased positive emotion, self-esteem, psychological adjustment, and an increase in negative emotions. The paradoxical effect of suppressing negative emotion increasing its frequency and intensity has been coined the “rebound effect” and is explored in many clinical studies (Dalgleish et al., 2008; Shipherd & Beck, 2005; Wenzlaff & Wegner, 2000). Conversely, processing, acknowledging, and accepting emotions have improved psychological outcomes (Baer, 2003; Broderick, 2005; Davis et al., 2015; Kuehner et al., 2009). In children, emotional processing has been identified as a positive factor that helps in coping with and growing through adverse events such as grief (McFerran et al., 2010), identity conflict (Davis et al., 2015), and natural disasters (Almazan et al., 2019; Prinstein et al., 1996).

While the role of emotional processing during a pandemic has not been explicitly studied, there is indirect research to suggest the value of this positive coping approach. For example, students in Chen et al. (2020) study who knew how to manage their stress levels displayed fewer symptoms of depression during COVID-19. Similarly, in Duan et al. (2020) study, emotion-focused coping during the COVID-19 crisis was significantly related to lower anxiety levels in students from grades 3–12. These findings suggest that processing emotions stemming from traumatic and stressful life events leads to a reduction in symptoms of depression and anxiety and supports individuals in coping and growing from adversity. This leads us to the following hypothesis:

Hypothesis 2 – *Adolescent emotional processing during COVID-19 will be positively related to SRG.*

1.6 | Social mechanisms that may predict SRG

Wang et al. (2020) suggest that the provision of support for adolescents during COVID-19 must include not only the cognitive and emotional factors that affect adjustments at the individual level (i.e., psychological mechanisms) but also social support factors (the need to include social factors is also asserted by Karanci & Erkam [2007] and Senol-Durak [2014]). This study, therefore, seeks to develop a psychosocial model of SRG in adolescents during the coronavirus crisis by examining two psychological variables—positive reappraisal and emotional processing—together with two key social factors in the life of adolescents that are likely to have an impact on their capacity to cope during the pandemic: strength-based parenting (SBP) and school belonging (SB).

1.7 | Strength-based parenting

Strengths can be defined broadly as positive personality qualities that authentically encapsulate an individual's core values and create positive outcomes for the individual and others (Niemic, 2020). Peterson and Seligman's (2004) pioneering 3-year research project involving 55 notable social scientists identified 24 character strengths that transcend cultural barriers, thereby providing a common language for understanding and discussing positive traits and capacities in human beings. Since then, multiple studies have demonstrated that identifying and frequently using one's character strengths can improve physical health (Leontopoulou & Triliva, 2012; Rashid & McGrath, 2020) and psychological health (Loton & Waters, 2018; Shoshani & Slone, 2016). In a similar vein, SBP is a style of parenting that seeks to “deliberately identify and cultivate positive states, positive processes, and positive qualities in one's children” (Waters, 2015, p. 690). Strengths-oriented parents both (a) recognize what their child can do well and (b) support their child to practice and cultivate their known and unrealized strengths (Arslan et al., 2020; Waters & Sun, 2016).

Research reveals that, in teenage samples, SBP is positively related to life satisfaction, self-confidence, subjective well-being, and positive emotions, and negatively related to (e.g., is protective against) anxiety, depression, stress, and negative emotions (Jach et al., 2018; Loton & Waters, 2018; Waters, 2015; Waters et al., 2019). Consequently, SBP takes on an additional level of importance in the context of the COVID-19 pandemic in which adolescents are experiencing increased symptoms of mental illness (Hawke et al., 2020; UNICEF, 2020; Yeasmin et al., 2020; Zhou et al., 2020). According to Waters, Cameron et al. (2021), parents and children are spending more time at home on account of lockdowns, distance learning, remote working, and social restrictions. Teenagers are spending increased amounts of enforced time with their parents and are relying on their parents for vital sources of social support during school closures (Evans et al., 2020). This increased time

and reliance on parents means that the style of parenting received during lockdown is likely to have a significant impact on the degree to which an adolescent is able to grow through the stress they are experiencing.

SBP may encourage adolescents to employ positive coping strategies during periods of heightened stress. This notion is well-illustrated in Waters' (2015) study, which examined the degree to which SBP was, directly and indirectly, related to coping strategies and stress levels in pre-teen students ($n = 103$, mean age = 11.3). Results demonstrated that children who reported higher levels of SBP experienced less stress, were better able to cope with stress when it did arise, and were more likely to utilize constructive, strength-based coping strategies. In another study with teenagers, Loton & Waters (2018) found that SBP was inversely related to stress and, furthermore, that SBP reduced stress by enhancing a sense of self-efficacy in adolescents, which is a factor that assists young people to cope and be adaptive. Thus, we predict that SBP is an important social factor that can influence a teen's coping and potential to grow through stress.

1.8 | School belonging

A second key social factor is that of SB, defined as “the extent to which students feel personally accepted, respected, included, and supported by others in the school social environment” (Goodenow & Grady, 1993, p. 61). Research consistently underscores that a sense of SB is a vital predictor of student wellbeing (Arslan, 2018) valued by schools (Allen, Kern, Vella-Brodrick & Waters, 2018). Students with a strong sense of SB are happier (Fong Lam et al., 2015), academically hardier (Abdollahi et al., 2020), have lower rates of school misconduct (Demagnet & Van Houtte, 2012) and absenteeism (Arslan, 2019), and exhibit less anxiety, depression, and suicidal thoughts (Parr et al., 2020; Steiner et al., 2019; Wyman et al., 2019).

The underpinnings of SB are shaped by a student's general feelings about school and three key relationships: the role of parents in a student's school journey, student–teacher relationships, and peer relationships (Allen & Kern, 2017; Allen, Kern, Vella-Brodrick, Waters & Hattie, 2018). COVID-19 has drastically impacted all three of these relationships, and therefore a student's sense of SB is likely to have been negatively affected during the pandemic (Allen et al., 2021; Arslan et al., 2020) especially that of students with special educational needs (Page et al., 2021).

No studies to date have examined the capacity for SBP to improve SB. However, Allen, Kern, Vella-Brodrick, Waters & Hattie (2018) meta-analysis of 51 studies involving over 67,000 school-aged children found parental support was strongly related to SB. Moreover, supportive parents provide a young person with a sense of safety and acceptance (Anderman, 2003), which are critical elements of SB (Allen & Kern, 2017). As strength-based parents are highly supportive (Waters, 2015), we suggest that SBP will be positively associated with SB for teens during lockdown. More specifically, given that (a) many other factors shown to predict SB are impeded by COVID-19 restrictions, such as peer-connections, extracurricular activities, school environment, and teacher support and (b) parent support has been shown to predict SB (Allen, Kern, Vella-Brodrick, Waters & Hattie, 2018), the potential for SBP to foster SB during the pandemic is a critical consideration for academic research.

Hypothesis 3 – *SB will be positively related to positive reappraisal, emotional processing, and SRG, and there will be mediating effects of SB in the association of SBP with positive reappraisal, emotional processing, and SRG in adolescents.*

1.9 | The aim of the study

Research on SRG has suggested that adolescents can and do experience growth in response to traumatic and stressful life events (Levine et al., 2008; Mansfield & Diamond, 2017; Meyerson et al., 2011). Despite these findings, few studies have examined the potential for the COVID-19 pandemic to generate any positive outcomes for adolescents, and only one study to date has explored SRG in adolescents during the pandemic (Waters, Allen et al., 2021). The current study aims to identify the mechanisms through which SRG may occur and whether SB, positive reappraisal, and emotional processing mediate the association between SBP and SRG in adolescents during the pandemic. Figure 1 depicts the hypothesized model that will be tested in this study.

2 | METHODS

2.1 | Sample and procedure

Data were collected from 404 high school students at a large independent school in New South Wales, Australia, from grades 7 to 12, ranging in age from 11 to 18 ($M = 14.75$, $SD = 1.59$; 50.2% female, 46.8% male, and 3% non-/other gendered or

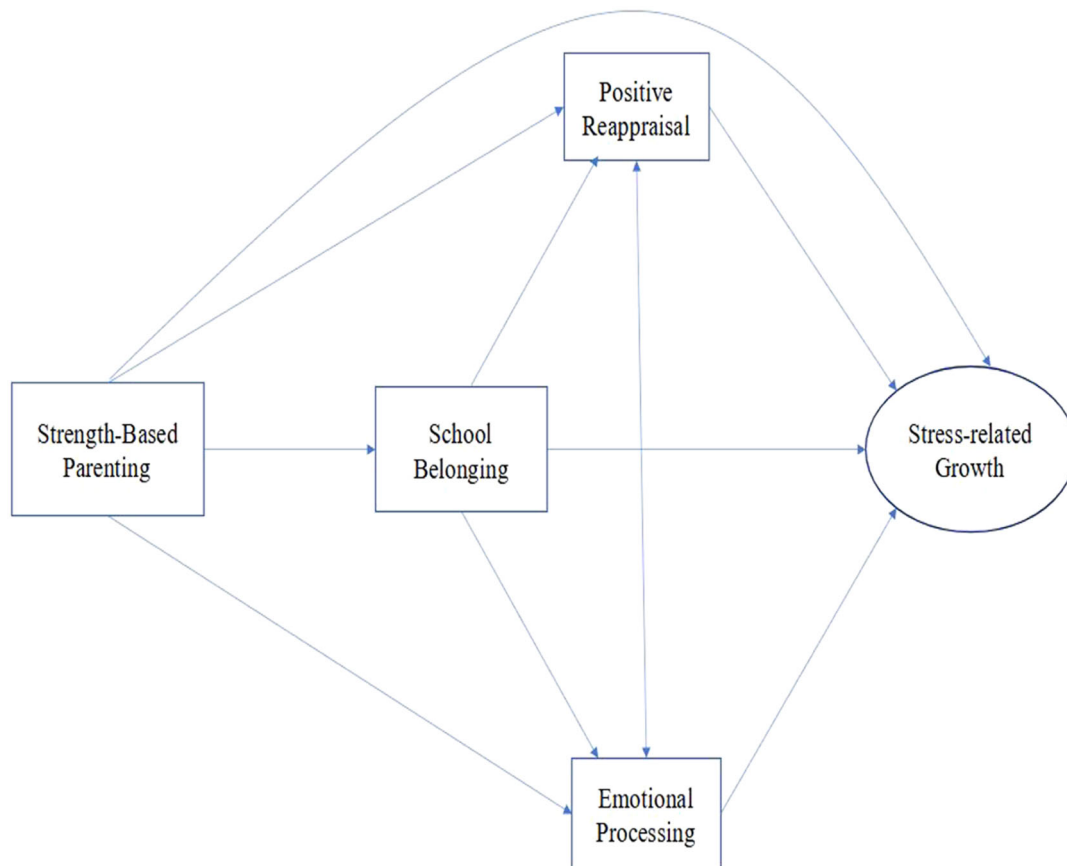


FIGURE 1 The proposed model indicating the relationship between the variables of the study [Color figure can be viewed at [wileyonlinelibrary.com](https://onlinelibrary.wiley.com)]

declined to answer). Most of the sample (93.1%) listed English as their primary language. After receiving ethics approval from the Human Ethics Research Committee at Monash University, the school wrote to parents to inform them of the survey and provide an opportunity for students to opt-out of the study. Participation was voluntary, and those students who chose to participate completed an online survey during class time at school.

All measures were collected in June of 2020, once students had returned to campus following a wave of lockdown from March to May the same year—the peak of the COVID crisis globally (UNESCO, 2020). When completing the survey, students were asked to consider different time points. First students were instructed to “Think back to your time in lockdown and during remote learning during COVID-19 to rate SBP, SB, and strength use (positive reappraisal and emotional processing).” Then, students also rated their current degree of SRG now that they were back on the school campus.

3 | MEASURES

3.1 | Positive reappraisal

Positive reappraisal was measured using the four-item “Positive Reinterpretation and Growth Scale” of the COPE inventory (Carver et al., 1989). Students were asked to rate the degree to which they engaged in positive reappraisal techniques (“I looked for something good in what was happening,” “I learned something from the experience,” etc.) during the COVID-19 pandemic and lockdown. Answers were given on a four-point scale from “I didn’t do this at all” to “I did this a lot.” The internal reliability of the scale was 0.82.

3.2 | Emotional processing

Students rated the degree to which they engaged in emotional processing techniques (“I took time to figure out what I was feeling,” “I thought about my feelings to get a thorough understanding of them,” etc.) during the COVID-19 pandemic and

lockdown using the four-item scale Emotional Processing Scale (Stanton et al., 2000). Answers were given on a four-point scale from “I didn't do this at all” to “I did this a lot.” The internal reliability of the scale was 0.78.

3.3 | Strength-based parenting

Students rated the degree to which their parents helped them to use their strengths during lockdown using the seven-item scale developed by Jach et al. (2018). Sample items include “My parents gave me opportunities to use my strengths” and “My parents showed me how to use my strengths in different ways.” Answers were given on a five-point scale from “Never” to “Always.” The internal reliability of the scale was 0.89.

3.4 | School belonging

Students rated the degree to which they felt a sense of SB during lockdown using the modified nine-item Psychological Sense of School Membership Scale (originally developed by Goodenow and Grady [1993], and later modified by Wagle et al. [2018]). Sample items include, “Do you feel like you are a real part of your school?” and “Is there a teacher or some other adult at school that you can talk to if you have a problem?” Items were answered along a six-point response scale in a yes/no format (1 ¼ no, never, 2 ¼ no, almost never, 3 ¼ yes, sometimes, 4 ¼ yes, often, 5 ¼ yes, very often, and 6 ¼ yes, always). The internal reliability of the scale was 0.93.

3.4.1 | Stress-related growth

Using an abbreviated Stress-Related Growth Scale (Vaughn et al., 2009), students were asked to think about whether their experience with COVID-19 changed them in any specific ways, including internal growth (“I have learned to deal better with uncertainty,” “I learned not to let small hassles bother me the way they used to,” etc.) and social growth (“I reached out and helped others,” “I have learned to appreciate the strength of others who have had a difficult life,” etc.). Answers were given on a five-point Likert scale from “Not at all” to “A lot.” The internal reliability of the scale was 0.85.

4 | PROCEDURE

4.1 | Data analyses

Data analyses were performed in two steps to examine the relationship between SBP, SRG, and the mediating coping factors upon returning back to campus during the COVID-19 outbreak. We first carried out observed scale characteristics including descriptive statistics and the assumptions of analysis. The assumption of normality was checked using kurtosis and skewness values, with their decision points for the normality (skewness $< |2|$ and kurtosis scores $< |7|$) (Curran et al., 1996; Kline, 2015). Pearson correlation analysis was then used to examine the relationship between the variables of the study. Second, structural equation modeling was employed to explore the mediating effect of positive reappraisal, SB, and emotional processing in the association between SBP and SRG. Several data-model fit statistics were examined to evaluate the findings of structural equation modeling. Tucker-Lewis index (TLI) and comparative fit index (CFI) scores ≥ 0.95 provide a good or close data-model fit. The root mean square error of approximation scores (RMSEA) with 90% confidence interval (CI) and the standardized root mean square residual (SRMR) scores ≤ 0.05 indicate a close model fit (Hooper et al., 2008; Hu & Bentler, 1999; Kline, 2015). The results were additionally interrelated using the squared multiple correlations (R^2) with: $<.13$ = small, $.13$ – $.26$ = moderate, and $\geq .26$ = large (Cohen, 1988). All study analyses were conducted using AMOS version 24 and SPSS version 25.

5 | RESULTS

Observed scale characteristics indicated that kurtosis and skewness values ranged from -0.97 to 0.51 , and all study measures were relatively normally distributed (see Table 1). Not only is it shown that many students did experience SRG during COVID-19, but correlation analysis results revealed that SRG had moderate to strong and positive correlations with SBP, emotional processing, positive reappraisal, and SB, ranging between 0.44 and 0.58 . SBP was also moderately and positively associated with emotional processing, positive reappraisal, and SB, ranging between 0.36 and 0.46 , as seen in Table 1.

Structural equation modeling was employed to examine the mediating effect of SB, positive reappraisal, and emotional processing in the relationship between strength-related parenting and SRG upon returning to campus during the 2020 COVID-19 outbreak. Results from this analysis indicated good data-model fit statistics ($\chi^2 = 5.05$, $df = 3$, $p = .168$, RMSEA = 0.042 [90% CI for RMSEA: 0.00–0.10], SRMR = 0.013, CFI = 99, and TLI = 0.99). Standardized regression estimates showed SBP had a significant predictive effect on emotional processing ($\beta = .29$, $p < .001$), positive reappraisal ($\beta = .34$, $p < .001$), SB ($\beta = .36$, $p < .001$), and SRG ($\beta = .23$, $p < .001$). SBP accounted for 13% of the variance in SB, and SBP had a significant predictive effect on emotional processing and positive reappraisal through SB in adolescents.

Furthermore, SB significantly predicted adolescent emotional processing ($\beta = .18$, $p < .001$), positive reappraisal ($\beta = .26$, $p < .001$), and SRG ($\beta = .22$, $p < .001$). SBP and SB together explained 16% of the variance in emotional processing and 24% of the variance in positive reappraisal. Finally, SRG was significantly predicted by emotional processing ($\beta = .18$, $p < .001$) and positive reappraisal ($\beta = .38$, $p < .001$), and all variables together accounted for 59% of the variance SRG, as shown in Figure 2. Standardized indirect effects with 95% bias-corrected CI are presented in Table 2. These results indicate that SBP significantly predicts SRG through SB, emotional processing, and positive reappraisal. Emotional processing and positive reappraisal mediate the effect of both SBP and SB on youth SRG during the pandemic.

TABLE 1 Descriptive statistics and correlation results

Scales	Range	M	SD	Skew.	Kurt.	1	2	3	4	5
1 Strength-based parenting	3–15	8.28	3.60	0.19	−0.97	–	0.36**	0.43**	0.36**	0.46**
2 Emotional processing	4–16	8.80	3.09	0.37	−0.36		–	0.56**	0.29**	0.48**
3 Positive reappraisal	4–16	10.27	2.84	0.01	−0.52			–	0.38**	0.58**
4 School belonging	9–54	36.81	10.56	−0.32	−0.35				–	0.44**
5 Stress-related growth	6–30	16.63	5.58	0.51	0.02					–

**Correlation is significant at the .001 level (two-tailed).

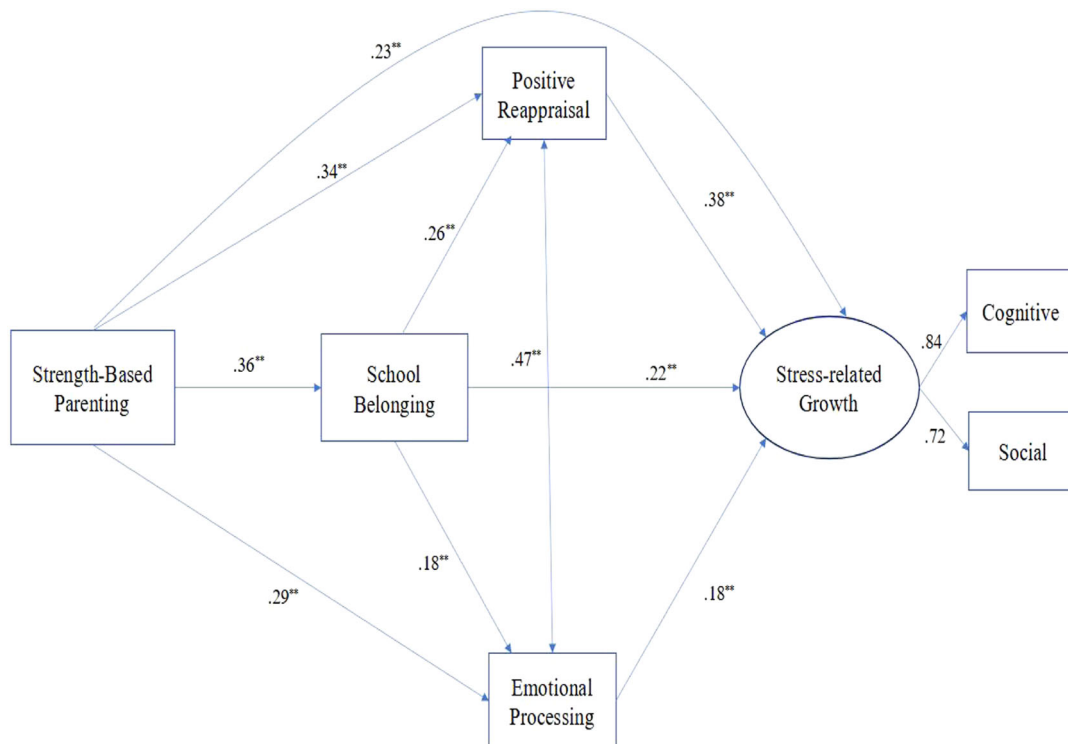


FIGURE 2 Conceptual model indicating the relationship between the variables of the study. ** $p < .001$ [Color figure can be viewed at wileyonlinelibrary.com]

TABLE 2 Standardized indirect effects

Path	Effect	SE	BootLLCI	BootULCI
Strength-based parenting → emotional processing	0.07	0.02	0.03	0.11
Strength-based parenting → positive reappraisal	0.09	0.03	0.05	0.15
Strength-based parenting → stress-related growth	0.31	0.04	0.24	0.38
School belonging → stress-related growth	0.13	0.03	0.08	0.20

Note: Number of bootstrap samples for percentile bootstrap confidence intervals: 10,000 with 95% bias-corrected confidence interval.

6 | DISCUSSION

The volatility of the COVID-19 crisis has increased rates of posttraumatic stress disorder in young people (Guo et al., 2020; Liang et al., 2020; Wang et al., 2020), yet the results of the present study support the view that the COVID-19 pandemic can also lead to positive mental health outcomes. More specifically, our results show that teenagers can experience SRG amid the COVID-19 crisis. Moreover, this study found evidence that adolescents adapt by engaging in constructive coping responses such as positive reappraisal and emotional processing, which were positively related to SRG. Beyond these two psychological factors, we also found that social support in the form of SBP and SB were significant factors that assisted high school students to grow through the stress they were experiencing. In fact, the psychosocial model tested in this study predicted 59% of the variance in SRG.

Positive reappraisal was positively related to SRG and mediated the effect of SBP on SRG in adolescents. Positive reappraisal, as defined earlier, involves reassessing a stressful event to find beneficial meaning from it. Since positive reappraisal is associated with beneficial outcomes (Garnefski et al., 2002; Helgeson et al., 2006), its link with SRG met the expectations of the initial hypothesis. How a particular situation is reassessed or evaluated often depends on prior experiences (acting as a feedback mechanism). Furthermore, positive reappraisal is a subjective, dynamic, and mutable process (Garland et al., 2009; Xu et al., 2020), meaning that it is influenced by current contextual factors and levels of social support, such as how much support a teenager receives from their parents. Interestingly, this view was supported by the results, which indicate that SBP provides those “experiences” that help a young person to positively reappraise and modulate their emotions, thus promoting SRG. For instance, in describing the psychological benefits of SBP, Waters (2015) suggested that it improves the coping skills of children and adolescents by adding a “positive filter” to how a child interacts with stress.

Furthermore, and as previously mentioned, parents who adopt a strength-based approach seek to deliberately identify and cultivate positive states, positive processes, and positive qualities in their children (Waters, 2015). In this regard, children exposed to SBP may learn to be more optimistic. They may be more likely to identify the positives that can come from remote learning, such as skill development, adaptability, and growth from stressful life events. In the current study, SBP significantly accounted for 9% and 7%, respectively of the variance in positive reappraisal and emotional processing, showing that parenting plays a significant role in the mental health of teens during lockdown.

The findings also supported the study's second hypothesis, indicating that emotional processing was positively associated with SRG. Adolescence represents a vulnerable period marked by a surge of different and conflicting emotions as adolescents go through several physical, emotional, and social changes (Del Piero et al., 2016; Peña & Pacheco, 2012). Under these conditions, learning how to regulate emotions can be a practical skill to help adolescents navigate this stressful period (Young et al., 2019), thus supporting the present study's hypothesized link between emotional processing and SRG. If this is correct, then the predictive effect of SBP on both emotional processing and SRG is noteworthy, especially given that, unlike children, adolescents are less reliant on parental support (Young et al., 2019). This observation could be attributed to the changes that occurred in the lives of adolescents (e.g., home isolation, online classes, social disconnectedness) due to the pandemic. Indeed, restrictions due to COVID-19 are a source of stress for some adolescents (Mohler-Kuo et al., 2021). Still, with adolescents and parents spending more time together, parents are more likely to identify and address causes of visible stress in their children. Since adults can regulate their emotions more effectively (Young et al., 2019), those who practice SBP may teach their children similar skills to help them overcome future stressful events. At the same time, being in close proximity during lockdown improved parent–adolescent relationships (Janssen et al., 2020; Rogers et al., 2021). As such, adolescents might be more likely to look to parents for all forms of support or might even be more receptive to their advice. Parenting under these conditions thus reflects the link between SBP and emotional processing as established by the results of this study.

Finally, the evidence revealed that SB was positively related to positive coping, emotional processing, and SRG. There were mediating effects of SB in the association of SBP with positive reappraisal, emotional processing, and SRG in adolescents during the pandemic. Although an initial appraisal of the results does not allow the link between SB and SRG to be easily established, it seems possible that parental support could be the main factor explaining this relationship, especially since support from parents is a strong predictor of SB (Allen, Kern, Vella-Brodick, Waters & Hattie, 2018).

To understand the significant predictive effect of SBP on emotional processing and positive reappraisal through SB, the socioecological perspective can be applied (Allen, Vella-Brodrick & Waters, 2018, 2016). The innermost layer of the model points to a student's characteristics. These encompass emotional stability and personal characteristics, such as coping skills and strengths, which allow emotions and behaviors to be regulated in the face of stressors. It could be that students with a high sense of belonging have this external resource that increases their capacity to cope with lockdown and remote learning despite not being physically on campus (Allen et al., 2017). Given that normal relationships with peers and teachers were compromised by COVID-19 restrictions, strength-based parents could foster SB by encouraging adolescents to keep in touch with their friends while ensuring that they also regularly attend online classes. Furthermore, adolescents turn to parents for support when faced with stressful events (Camara et al., 2017), and this tendency may have increased during the COVID-19 crisis, thereby allowing parents to teach them positive coping skills which promote SRG.

While previous research has shown that SBP can induce resilience in adolescents—a key characteristic of SRG (Ord et al., 2020; Sağkal & Özdemir, 2019)—the present results add to this by showing factors that mediate this relationship. Moreover, while the beneficial effects of positive reappraisal and emotional processing on SRG have already been well established in the literature, the present study adds SBP to this conceptual framework, which further highlights the responsibility of parents for helping adolescents navigate through stressful events. As previously mentioned, the main focus of SBP is to use children's positive qualities to support their wellbeing. Generally, focusing on strengths can be achieved either by supporting children and adolescents to consider the types of strengths they possess or by focusing on how their strengths can be developed or used (Waters et al., 2019). The results of this study also establish SBP as a potential point of intervention for fostering SRG. Waters, Allen et al. (2021) found that positive education skills taught at schools predicted SRG. We suggest that SBP can also be adopted by parents to help them act as “teachers” who show their teens how to experience psychological growth.

Overall, the results of this study identify a silver lining in the COVID-19 global pandemic. These results are more than just a welcome relief—they provide four psychosocial factors that can be leveraged in addressing adolescent mental health as students begin to return to a “new normal” and to in-person classrooms.

6.1 | Limitations and future research

This study has three main limitations. First, the timing of data collection may have influenced the results. Data was collected in the first peak of the COVID crisis during 2020, and it may be that the results would differ for students who have experienced multiple rounds of lockdown across 2020 to 2021, enduring more prolonged periods of uncertainty and adversity. Questions for future researchers include: Does SRG continue to grow as the pandemic goes on or does it decline with time? Does SBP deteriorate or strengthen the longer the family spends together in lockdown? And if SBP changes over time, does this change the significant link between SBP and SRG and its impact on the mediator variables? As the COVID-19 pandemic continues through the time of writing this paper (October 2021), and is expected to go on for some time longer, the lasting effects of the pandemic may impact the nature of SRG experienced in students. The role played by the duration of this crisis on the current study variables is unknown, which means there is benefit in exploring whether SRG grows, stalls, or reverses as the pandemic continues.

Second, all measures collected were self-reports, which may have led to response bias. For example, some students might have had a pattern of systematically responding more positively or negatively to all items regardless of the construct being tested. If this is the case, then the variance would be lower, and the current results are an under-report of the magnitude of the relationships. Self-report methods can also be compromised by social desirability and acquiescence (Knowles & Nathan, 1997). Future researchers could overcome this limitation by also surveying parents and thus including multiple sources of data about SBP and how the teenagers are coping (Boyle, 2007). Teachers could also be included to assess the levels of SB and SRG they see in their students, thus creating a triangulation of data sources (Allen & Kern, 2019; Podsakoff et al., 2003).

Third, the sample was obtained from only one school, which was an independent grammar school in Australia (predominantly English speaking). This may limit the generalizability of the findings for students who attend schools from other sectors such as public/government schools or other faith-based schools and for students in non-WEIRD¹ contexts.

Finally, the retrospective design means it is possible that the results were influenced by recall bias. Students were asked to complete a single survey recalling two previous time points (during lockdown and during remote learning) and their SRG during the current return to campus. It is possible that some students either underrated or overrated the degree to which they learned positive education.

¹WEIRD: Western, educated, industrialized, rich, and democratic.

7 | CONCLUSION

The COVID-19 crisis has led the media and academic researchers to shine a light on the detrimental impacts of the pandemic on the mental health of adolescents, who have been classified as a subset of the population that is particularly fragile to the volatility of the pandemic (Hawke et al., 2020; Loades et al., 2020). While understanding the negative impacts of COVID-19 on adolescent mental health is imperative, positive psychology researchers have argued that the “flip side of the same coin” must also be considered (see Bruining et al., 2020; Waters, Algoe et al., 2021), to understand and support the potential for the pandemic to lead to growth in adolescent wellbeing. To this end, the current study showed that SRG is a promising positive outcome that can be cultivated during the pandemic through supporting SBP, SB, positive reappraisal, and emotional processing. We hope this paper inspires more positively-oriented research with adolescents during times of crisis.

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CONFLICT OF INTERESTS

The authors declare that there are no conflict of interests.

ETHICS STATEMENT

The current study was approved by the Monash University Human Research Ethics Committee on the grounds that it adequately met the requirements of the National Statement on Ethical Conduct in Human Research Project ID: 25420. After receiving ethics approval from the Human Ethics Research Committee at Monash University, the school wrote to parents to inform them of the survey and provide an opportunity for students to opt-out of the study. Participation was voluntary, and those students who chose to participate completed an online survey during class time at school. The authors provide their consent for publication.

DATA AVAILABILITY STATEMENT

Due to the nature of this study, participants of this study did not agree for their data to be shared publicly, so supporting data is not available.

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