Check for updates

Journal of Community & Applied Social Psychology

WILEY

RESEARCH ARTICLE OPEN ACCESS

Distanced but United: An Educational Intervention to Foster Children's Self-Efficacy in Complying with Safety Measures Against COVID-19 and Reduce Anxiety

Alessia Cadamuro[1] | Elisa Bisagno[2] | Veronica Margherita Cocco[2] | Elena Trifiletti[3] | Loris Vezzali[2]

[1]Department of Biomedical, Metabolic and Neural Sciences, University of Modena and Reggio Emilia, Modena, Italy | [2]Surgical, Medical and Dental Department of Morphological Sciences Related to Transplant, Oncology and Regenerative Medicine, University of Modena and Reggio Emilia, Modena, Italy | [3]Department of Human Sciences, University of Verona, Verona, Italy

Correspondence: Elisa Bisagno (elisa.bisagno@unimore.it)

Received: 30 July 2024 | **Revised:** 17 March 2025 | **Accepted:** 11 April 2025

Keywords: children's anxiety | COVID-19 pandemic | educational intervention | primary school | self-efficacy

ABSTRACT

During the COVID-19 pandemic, many schools temporarily interrupted face-to-face activities, replacing them with distance learning. Children experienced prolonged physical isolation from their peers, teachers, and networks, which negatively affected their mental health. When schools re-opened, children were required to comply with containment rules against the spread of the virus whilst still suffering the psychological consequences of the pandemic. Whereas extensive research has examined the detrimental consequences of the lockdown, little attention has been devoted to children's experiences during the phases of progressive reduction of isolation. To fill this gap, we aimed to test the effectiveness of an intervention focused on facilitating primary school children's return to school by fostering their self-efficacy in complying with restrictive rules. Two hundred and twenty-one first- to fifth-graders filled out self-efficacy and anxiety measures before and after a story-based intervention paired with playful activities aimed at increasing children's comprehension and compliance with the anti-COVID-19 rules. The hierarchical regression analysis showed that the intervention provided children with confidence in being able to follow the rules through story reading and class activities. Consistent with hypotheses, self-efficacy increased over time as a function of the intervention, and this growth was associated with an anxiety reduction.

1 | Introduction

To prevent the spread of COVID-19, governments and policy-makers all over the world enforced school closures and home confinement. Children in almost 300 countries did not attend school for several months, starting from March 2020 (Viner et al. 2020). In Italy, students from all grades stayed home from school from the beginning of March until September 2020 (Petretto et al. 2020). All face-to-face classes were suspended and gradually replaced by distance learning until the end of the school year in June (Cadamuro et al. 2021).

During the lockdown, more than one-third of children experienced prolonged physical isolation from their peers, teachers, extended family members, and community networks (Loades et al. 2020; Morelli et al. 2021). These changes, along with the worries and uncertainties caused by the pandemic, negatively affected their mental health (Brooks et al. 2020; Duan et al. 2020; Ghosh et al. 2020). Although the scientific literature is not unanimous in confirming the negative impact on children's mental health (Black et al. 2023; Brooks et al. 2020; Duan et al. 2020; Ghosh et al. 2020; Thompson et al. 2022), in Italy, the Italian Society of Paediatricians reported an 83% increase in young patients' admissions for neuropsychological disorders (Bozzola et al. 2022). Moreover, a systematic review that examined thirteen studies, covering a total of 18.843 Italian children, reported negative effects of the lockdown on children's anxiety, anger, irritability, lowering of mood,

This is an open access article under the terms of the Creative Commons Attribution License, which permits use, distribution and reproduction in any medium, provided the original work is properly cited.

© 2025 The Author(s). *Journal of Community & Applied Social Psychology* published by John Wiley & Sons Ltd.

difficulty in concentration, and sleep disturbances (Bonvino et al. 2023).

Overall, the effects on children's well-being of lockdown (Guessoum et al. 2020), school closure, and home quarantine (Cadamuro et al. 2022; Xie et al. 2020) have been deeply studied. However, decidedly less attention has been paid to what they experienced during the new phases of progressive reduction of isolation and how they coped with the introduction of the new measures aimed at limiting the spread of the virus. This is also true in terms of interventions. Most undertaken actions were aimed at mitigating the anxiety experienced by youngsters during the lockdown (Wendel et al. 2024; Zepeda et al. 2023). Boldt et al. (2021) reviewed interventions aimed at reducing psychosocial problems in children during the overall course of the pandemic. Of the 11 protocols they analysed, only four interventions directly targeted youngsters, of which two were therapy-based protocols (e.g., Tymofiyeva 2020), one tested a live-streaming application for children that offers a recess and exercise program (Zheng 2020), and the last provided an online 5-day peer-delivered training on relevant skills such as self-care (Pavarini 2020; Pavarini et al. 2022).

To inform return-to-school strategies after the pandemic, Gómez et al. (2021) reviewed child-focused mental health interventions for disaster recovery, amongst which school-based cognitive-behavioural therapy was the most commonly proposed intervention. However, no studies proposed classroom activities aimed at providing children with practical tools to increase their perception of control, such as strategies to facilitate the adoption of the new anti-contagion rules. An exception is represented by Capurso et al. (2020), who designed a school-based program to help children process emotions, rebuild interpersonal connections, and develop effective coping strategies during the post-pandemic comeback to school. However, the Authors only present the intervention and not the results of its implementation.

Despite the little attention they received, we argue that such interventions are especially relevant for younger children, who are sensitive to changes in personal routines (Bridley and Jordan 2012). Indeed, when the schools re-opened, children were asked to adhere to new safety rules, such as wearing face-masks, following precise hand hygiene procedures, and keeping physical distance. Although these safety norms are customary in some Asian countries, in other contexts, they represent a change in behavioural norms that can originate discomfort. In a study conducted in Canada, it was found that non-East Asian Canadians perceived mask wearers as ill, strange, or overreacting, whereas Chinese Canadians saw mask-wearing as respectful and responsible (Zhang et al. 2022). Importantly for the present study, research conducted in Italy found that one of the main concerns (42% of responders) reported by a sample of 565 Italian primary school children was the need to follow safety rules, such as always wearing a mask at school (Capurso et al. 2023). This concern might be explained by the changes that safety measures produced in children's daily routines and peer relationships, which, for Italian youth, usually rely on physical interactions (Capurso et al. 2023) and emotional expression (Gori et al. 2021). In this sense, having to adhere to "unnatural" safety protocols can be considered a psychological stressor which enhances children's vulnerability (Duan et al. 2020; Zhou et al. 2020).

1.1 | The Role of Self-Efficacy in Taming Children's Anxiety

Uncertainty and anxiety increased significantly during the peri- and post-pandemic periods. People feared infection, ineffective prevention, inadequate intervention efforts, and uncontrolled viral spread (Taylor 2022) and experienced continuous hypervigilance. In such situations characterised by high levels of uncertainty, children are particularly vulnerable to developing maladaptive reactions to stress (Courtney et al. 2020; Korte et al. 2022). Liu et al. (2021) found that higher anxiety-disorder rates amongst children and adolescents after the COVID-19 outbreak positively correlated with perceptions of the virus as threatening or stigmatising. This effect is likely a function of the impaired sense of control and predictability: especially amongst youngsters, the unprecedented, unknown, and dynamic nature of the pandemic may have fostered feelings of uncertainty, reducing confidence in one's ability to cope with it (Cattelino et al. 2023; Chorpita and Barlow 1998).

The context generated by the pandemic, characterised by difficulties and challenges never previously experienced, may have undermined children's perception of self-efficacy, i.e., their personal belief that they can cope with the pandemic effectively (Bandura 1997). Self-efficacy plays a central role in self-management processes, also during a pandemic, because it affects actions directly and through its impact on cognitive, motivational, affective, and decisional determinants (Bandura et al. 2003). In this sense, it can be intended as a person's belief in his or her ability to perform an action to adopt health-promoting behaviours and discontinue health-harming behaviours (Schwarzer 1992). High levels of self-efficacy decrease the possibility of experiencing distress and can help control stressful situations (Shahrour and Dardas 2020), strengthening resilience to adversity (Benight and Bandura 2004).

Consistently, lower psychological distress and higher resilience were associated with higher self-efficacy during the COVID-19 pandemic in both adults (Morelli et al. 2020) and children (Kovesdi et al. 2020). Besides Kovesdi et al. (2020), only one study investigated the role of self-efficacy amongst children during the pandemic, reporting a negative correlation between self-efficacy and two subscales of the Children's Depression Inventory, namely Ineffectiveness and Anhedonia (Zakeri et al. 2022).

Moreover, literature comprising adult and adolescent samples consistently showed self-efficacy's key role as a protective factor during the COVID-19 pandemic. Zhou et al. (2021) showed that individuals with higher self-efficacy were more likely to endorse low risk perceptions and to avoid passive coping strategies in favour of active ones, resulting in fewer mental health problems. Jian et al. (2023) found that self-efficacy was positively correlated with post-traumatic growth (PTG) and moderated the relationship between post-traumatic stress disorder (PTSD) and PTG in adolescents: for those with low self-efficacy, the higher the PTSD, the higher the PTG, whilst for those with

10991298, 2025, 3, Downloaded from https://onlinelibrary.wiley.com/doi/10.1002/casp.70106 by CochraneItalia, Wiley Online Library on [13/09/2025]. See the Terms and Conditions (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library for rules of use; OA articles are governed by the applicable Creative Commons License

high self-efficacy, the higher the PTSD, the lower the PTG. In a correlational study with adolescents, Cattelino et al. (2023) also examined the relationship between self-efficacy and well-being during the COVID-19 pandemic, finding a positive relationship between self-efficacy and both cognitive and emotional forms of well-being.

Based on both the scant literature comprising developmental samples and the broader one on adults and adolescents, we argue that improving self-efficacy in children should be a goal to help them manage stress and prevent depression (Liu et al. 2021) Above all, we claim that it is important to improve children's perception of self-efficacy in following safety measures, such as hand hygiene, wearing a mask, and physical distancing to counter the spread of the virus, and this is particularly crucial at the time of school re-opening after a lockdown. Indeed, after the end of the lockdown, children experienced difficulties in leaving their safe home environment and attending school (Dąbkowska and Dąbkowska-Mika 2021).

When schools re-opened, rather strict health rules were introduced, such as: (a) use of single desks rather than traditional double ones, and, if needed, minimised clustering into small groups, (b) maintaining appropriate distance from others, (c) mandatory wearing of surgical masks for children at all times except when students are seated at their desk and are not speaking, and (d) disinfecting or washing hands frequently (Larosa et al. 2020). Several studies underlined the important role of education in the awareness and compliance with precautionary measures in children (Kalaskar et al. 2021). It is therefore essential to design proper guidelines to promote healthy habits and rule observance to curb the spread of infection.

With the reopening of schools after confinement, this became an essential requirement to ensure normal school routines without impacting the number of infections. In this regard, however, schools were often unprepared: they had to independently organise strategies to teach children the importance of respecting the rules relevant to dealing with the pandemic. This is where our psychological intervention fits in: teaching children to follow the rules of COVID-19 containment through evidence-based playful activities and fairy tales aimed at increasing children's self-efficacy and lowering their anxiety, whilst at the same time preserving their need for social interactions and safe relations with peers.

2 | The Present Research

As stated above, our study aimed to fill a gap in the literature by offering an evidence-based intervention to promote the psychological skills required from children to comply with the new safety rules once they returned to school. Specifically, we designed and implemented an intervention aimed at facilitating primary schoolchildren's adherence to the new anti-contagion school rules through enhanced self-efficacy. Increases in self-efficacy were, in turn, expected to reduce anxiety related to the pandemic and how to face it.

Bandura (2008) identifies four key mechanisms for fostering self-efficacy, that is mastery experiences (direct personal successes), vicarious experiences (observing similar others succeed), verbal persuasion (reinforcement of belief in one's ability), and physiological states (positive emotional and physiological experiences associated with success). Our intervention relied on these mechanisms to foster children's confidence in adhering to anti-COVID protocols. This was achieved through story-reading, actual mastery experiences, and discussions reinforcing children's confidence to succeed in implementing the rules and sharing positive emotions.

This intervention contributes to the literature both theoretically and practically. Its theoretical relevance lies in the investigation of how children can be supported in coping with the pandemic and the psychological processes involved, whilst its practical relevance lies in providing schools with an easy-to-use tool to facilitate school life during a pandemic.

2.1 | Research Questions

To assess the effects of the intervention, we focused on the two main constructs of our rationale, self-efficacy and anxiety, both of which were assessed –based on the school's specific request for a safe return of all children to school life– on the whole school population before (pre-intervention time, T1) and after the intervention (post-intervention time, T2).

The hypotheses were the following:

H1. *Anxiety should decrease over time. Although anxiety may be high after months of lockdown where participants could not attend face-to-face lessons, regularly attending school classes face-to-face should lower children's fears.*

H2. *Self-efficacy should increase over time as a function of the intervention.*

H3. *The increase in self-efficacy over time determined by the intervention should be associated with lower anxiety over time.*

3 | Materials and Methods

3.1 | Participants

The intervention took place in a public primary school located in a region in the North of Italy that was particularly affected by the COVID-19 pandemic, and it was administered to the whole population of the school.

Within this population, participants who completed the questionnaire at T1 (the second week from the beginning of school, September 2020) were 306 primary school children. Of these children, 264 also completed the questionnaire at T2 (42 were absent from school), i.e., after the intervention (immediately following the last intervention session). We further removed participants with missing data on the measure of anxiety at T1 ($N=15$), T2 ($N=10$), or both at T1 and T2 ($N=6$), as well as participants with missing responses on self-efficacy at T1 ($N=1$) or T2 ($N=3$). Finally, we excluded 8 participants because they did not report their gender. The final sample was

10991298, 2025, 3, Downloaded from https://onlinelibrary.wiley.com/doi/10.1002/casp.70106 by CochraneItalia, Wiley Online Library on [13/09/2025]. See the Terms and Conditions (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library for rules of use; OA articles are governed by the applicable Creative Commons License

composed of 221 participants (123 males, 98 females), from first to fifth grade (all primary school grades in the Italian school system; grade represents our operationalization of age). The distribution per grade is the following: first-grade: $N = 28$; second-grade: $N = 36$; third-grade: $N = 65$; fourth-grade: $N = 36$; fifth-grade: $N = 56$.

The study was conducted under the Declaration of Helsinki; before data collection, all parents of the children received a presentation letter depicting it and provided informed consent for their children to complete the questionnaire. It is worth noting that this was an "emergency" intervention requested by the school to start immediately to support children's school comeback. For this reason, due to strict time constraints, IRB approval was obtained expost by the Ethics Committee of the University of Verona (protocol number 2023_37).

3.2 | Intervention

The intervention was conducted by trained schoolteachers. Children took part in a program of five sessions (approximately 1 h each) over five consecutive days within their classroom. On the first day, before starting the intervention, children were administered a paper-pencil questionnaire. To facilitate its completion, in each classroom, the teacher read each question aloud, after explaining to the pupils how to colour the box corresponding to their desired answer. The teachers of grades 1–3 were instructed to pay particular attention to explaining the meaning of words to the children and to regularly check their understanding of the response methods.

After the questionnaire, in the first session, teachers read an ad-hoc created story, using the interactive whiteboard. In the story, the characters were funny alien creatures from an imaginary planet. The main protagonists were the princess and the prince of the planet, and the children who lived there. These characters had to face a difficult situation because a mysterious flower had released into the air a dangerous perfume that made the inhabitants of the planet sick. Only because of the mutual collaboration of all creatures and the respect of the rules (the rules of the imaginary planet were the same rules in force in the school to prevent COVID-19), the flower could be eradicated, and the creatures saved. Therefore, the main message conveyed by the story was that knowing the rules and knowing how to respect them, as well as being aware that friends will contribute to this aim too, will allow everyone to be safe. In line with Bandura's (2008) conceptualisation of vicarious experiences, listening to the story was therefore expected to make participants feel more effective in implementing the anti-COVID rules and ultimately more comfortable with the new situation generated by the pandemic.

We created slightly different stories for grades 1–2, and for grades 3–4–5: although the content was identical, the language used was adapted to match the linguistic abilities of the children. After reading the story, teachers promoted a collective discussion using some stimulus questions (e.g., "What happened in the story?"; "What allowed creatures to achieve their goals?"), which were meant to verify and increase storey understanding.

In the subsequent sessions, participants performed a series of activities. Although the activities were performed at the class level, participants were asked to work on them individually to maximise their effects. Some of the activities carried out during the sessions were adapted based on the school grade (grades 1–2, and grades 3–5) to facilitate their realisation based on children's age. Below, we specify which these differences were.

In the second session, after quickly resuming the content of the story, participants were asked to take part in some activities intended to favour the elaboration of the story content. After reading the story, the children participated in a playful activity (carried out by the creatures in the story as well) to gain confidence in complying with the rules on physical distancing. This activity consisted of creating a sequence of systematic and fun actions to greet peers and teachers, where physical distance would be maintained. This way, each peer and/or class could create a personalised way to interact with others within the school context; respecting physical distance could, therefore, become a game to play with others. Finding together practical solutions to appropriately greet one another served as a mastery experience to enhance self-efficacy (Bandura 2008).

The third session was dedicated to the expression of the emotions experienced by the children regarding their return to school after the lockdown. In line with Bandura's (2008) fourth mechanism to foster self-efficacy, that is states of physiology, participants were invited to express their emotions. This was done differently depending on school grade. In grades 1–2, participants were invited to express their emotions by drawing, and in grades 3–5 by writing down an essay. After the activity, children were invited to disclose their work, discussing it with the class.

In the fourth session, to make participants feel effective in managing their new daily routine at school, we proposed them another mastery experience, whilst also promoting their belief in success. Children were asked to actively elaborate on the rules of prevention and containment related to COVID-19 (the same presented in the story for the children to save their planet from the poisonous flower). Participants from grades 1–2 were asked to represent by drawing themselves and their friends whilst playing by respecting those rules; in so doing, they were invited to explicitly indicate the rules to which they referred in the drawing on the side of the sheet. Participants in grades 3–5 were asked to list the aforementioned rules to follow in order of importance, making also explicit the reasons for the position on the list of each rule. For all participants, the activity continued with a presentation of their work, which they discussed with the whole class to reach a joint list. In the discussion, participants were also presented with the option of giving each rule the name of an animal. The ultimate goal was to encourage children not only to know and respect the rules but also to invite their friends to do so by recalling the names of the animals if any rules were broken (e.g., "Be careful, you are breaking the rule of the elephant"), therefore potentially increasing self-efficacy at the collective and not only at the individual level.

To further encourage the sharing of positive emotional and physiological states, in the last session, participants were invited, through a game, to express what made them happy about

10991298, 2025, 3, Downloaded from https://onlinelibrary.wiley.com/doi/10.1002/casp.70106 by CochraneItalia, Wiley Online Library on [13/09/2025]. See the Terms and Conditions (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library for rules of use; OA articles are governed by the applicable Creative Commons License

being back at school. This game aimed to foster an atmosphere of serenity by inviting children to do their best to stay in school. To reinforce the activity, participants were also asked to repeat the motivations expressed by children who spoke before them; whoever forgot to report the previously mentioned motivations gave birth to a new chain. The game was followed by a collective discussion on how the new routine would allow them to continue going to school, therefore strengthening the concept that mastering the rules' implementation gave them more agency over their face-to-face school attendance.

At the end of the fifth session, children were administered the same questionnaire that was filled out before the intervention.

3.3 | Measures

3.3.1 | Self-efficacy

For self-efficacy, we created two ad-hoc items to capture self-efficacy related to rule compliance specific to the pandemic situation. Participants were therefore asked to respond to the following items: "If we follow the rules, we will not get sick"; "Other children too can learn to follow rules with my help." The response scale ranged from 1 (*Absolutely not*) to 5 (*Absolutely yes*). Items were averaged in two composite scores of self-efficacy at T1 ($r = 0.22$, $p = 0.001$) and at T2 ($r = 0.24$, $p < 0.001$). It is worth noting that, whilst a measure to assess self-efficacy in complying with the rules aimed at facing COVID-19 was recently developed (Hernández-Padilla et al. 2020) this was validated only with adults, and most of the items were not age-appropriate for our sample. We, therefore, developed a set of items tailored for primary school children.

3.3.2 | Anxiety

Children were administered the Revised Children's Manifest Anxiety Scale, Second Edition, Short Form (RCMAS-2-SF: Reynolds and Richmond 2008), a self-report inventory designed for students aged 6–19. It consists of 10 items, such as "I am nervous," "I have too many headaches," and "I wake up scared sometimes." Students respond to the RCMAS-2 Short Form items using a yes/no (scored 1 and 0) format. Responses were summed to obtain a score of general or manifest anxiety. Scores ranged from 0 (no anxiety at all) to 10 (highest level of anxiety).

4 | Results

To check for selective attrition, by using multivariate analyses, we compared self-efficacy T1 and anxiety T1 between participants completing both waves and participants only attending the first wave. Results revealed a nonsignificant multivariate effect, $F < 1$. The distribution of males and females did not differ between the two waves, $\chi^2(1) = 2.85$, $p = 0.091$. These data suggested the absence of selective attrition biases in the sample.

Means and standard deviations for the tested variables at T1 and T2 are presented in Table 1. To test H1, we compared the levels of anxiety at T1 with the level of anxiety at T2 by using a repeated measures *t*-test. As can be seen in Table 1, although the mean for anxiety at T1 appeared descriptively higher than the mean for anxiety at T2, such a difference was not statistically significant; therefore, H1 was not supported. In contrast, the mean for self-efficacy at T2 was significantly higher than the mean for self-efficacy at T1 (Table 1), providing support for H2.

TABLE 1 | Means and standard deviations for self-efficacy and anxiety at T1 and T2 ($N = 221$).

Measure	T1		T2		*t* (220)	Cohen's *d*
	M	SD	*M*	SD		
1. Self-efficacy	3.94	0.87	4.13	0.78	3.42***	0.23
2. Anxiety	2.80	2.12	2.62	2.25	1.54	0.10

Note: The response scale ranges from 1 to 5 for self-efficacy, and from 0 to 10 for anxiety.
***$p < 0.001$.

Correlations are presented in Table 2. As can be seen, anxiety at T1 was positively associated with anxiety at T2, showing that children with more anxiety at T1 also displayed greater anxiety at T2. Similarly, a positive association emerged between self-efficacy at T1 and T2, showing that children with more self-efficacy at T1 also displayed a greater level of this variable at T2. These correlations provide support to the test–retest validity of our measures. Other correlations are also worth mentioning. Age displayed a negative association with self-efficacy both at T1 and T2, showing that older children feel less effective in dealing with the pandemic by following the rules. Age also correlated positively with the change score for anxiety, indicating that older children displayed greater anxiety over time.

To test H3, we used the conditional change-score model (Berrington et al. 2006; Finkel 1995), which enables the testing of longitudinal relations. This test allows capturing the variability in time of a variable (in our case, anxiety) based on the variability of another (in our case, self-efficacy) during the same period of time. Our intervention was meant to increase the perceived efficacy of children in dealing with the virus and, specifically, to implement the main precautions requested by authorities. It is this self-efficacy ostensibly activated by the intervention, which is expected to be negatively associated with anxiety. Therefore, we subtracted self-efficacy at T1 from self-efficacy at T2; similarly, we subtracted anxiety at T1 from anxiety at T2. We then tested if increases in self-efficacy over time were associated with a reduction in anxiety over time. To adopt a conservative approach, we took age and gender into consideration and tested whether the association of self-efficacy with anxiety explained an additional portion of variance when age and gender were accounted for. In the first step of the hierarchical regression, we entered age (grade) and gender as predictors. In the second step, we added the change score of self-efficacy (T2–T1). The dependent variable was anxiety (T2–T1). Results are presented in Table 3. As can be seen, age was a significant positive predictor of the change score of anxiety (T2–T1); therefore, older children experienced more anxiety over time compared to younger children.

10991298, 2025, 3, Downloaded from https://onlinelibrary.wiley.com/doi/10.1002/casp.70106 by CochraneItalia, Wiley Online Library on [13/09/2025]. See the Terms and Conditions (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library for rules of use; OA articles are governed by the applicable Creative Commons License

TABLE 2 | Correlations amongst variables ($N = 221$).

Variable	1	2	3	4	5	6	7	8
1. Age (grade)	—							
2. Gender (0 = females, 1 = males)	−0.01	—						
3. Self-efficacy T1	−0.16*	−0.05	—					
4. Anxiety T1	−0.02	−0.10	0.02	—				
5. Self-efficacy T2	−0.30***	−0.00	0.48***	0.07	—			
6. Anxiety T2	0.12	−0.12	0.08	0.68***	−0.01	—		
7. Self-efficacy (T2–T1)	−0.11	0.04	−0.59***	0.04	0.43***	−0.08	—	
8. Anxiety (T2–T1)	0.17*	−0.03	0.07	−0.34***	−0.10	0.46***	−0.16*	—

*$p < 0.05$.
***$p < 0.001$.

TABLE 3 | Hierarchical regressions testing the association of age (grade), gender and self-efficacy with anxiety ($N = 221$).

	Anxiety (T2–T1)	
	Step 1	Step 2
Age (grade)	0.17*	0.16*
Gender (0 = females, 1 = males)	−0.03	−0.02
Self-efficacy (T2–T1)		−0.15*
F	3.41*	3.90**
F change	—	4.78*
Adjusted R^2	0.02	0.04

Note: Standardised regression coefficients are reported.
*$p < 0.05$.
**$p \leq 0.01$.

Supporting Information H3, the association between the increase in self-efficacy over time and the reduction of anxiety over time was significant even after accounting for the effects of age and gender.

5 | Discussion

Children faced significant psychological, social, and economic challenges during the period of social distancing and the closure of essential educational institutions (Golberstein et al. 2020; De Miranda et al. 2020). School closures and their subsequent reopening with specific restrictions heavily impacted children's psychological functioning due to radical changes in their traditional daily routines and habits (Jiao et al. 2020; Shen et al. 2020; Raffaele et al. 2021), which at times caused uncertainty and anxiety (e.g., Ghosh et al. 2020; see Śniadach et al. 2021, for a review).

Despite the extensive impact of COVID-19 on the lives of children, interventions designed to facilitate children in coping with the emergency were scant. This was particularly evident in efforts to facilitate children's return to school following lockdown measures (Capurso et al. 2020).

A critical aspect of a successful reintegration in school was children's ability to adhere to anti-contagion protocols whilst maintaining fulfilling social interactions. However, the preventive measures posed significant challenges in the school environment, which is inherently characterised by close social interactions. Primary school children, in particular, often struggled to understand and comply with these rules. Consequently, many children lacked the tools necessary to navigate the changes in social interactions at school (Kalaskar et al. 2021). Additionally, schools were often unprepared to address this new reality or to effectively communicate the required guidelines to the students.

Complementing most extant research (for a review, see Dąbkowska et al. 2021), our study focused on how children coped with the return to face-to-face contact by employing an ecological approach. We aimed to facilitate their return to school for children and teachers by fostering a climate of serenity, proposing an effective way to deal with the rules, with potentially positive effects on well-being.

The results of the study showed that our intervention successfully enhanced self-efficacy amongst participants by tapping into the key mechanisms for building self-efficacy proposed by Bandura (1997, 2008). Importantly, the increase in self-efficacy was significantly associated with a reduction in anxiety over time. It is likely that, by presenting the anti-contagion rules playfully, we increased children's awareness and confidence that they can cope with them effectively. Through emotional involvement, children became protagonists, so that they were not only more motivated to follow rules but may also actively promote their compliance amongst their classmates. These findings underscore the potential of targeted interventions to increase self-efficacy and indirectly mitigate anxiety, thus supporting the idea that educational strategies aimed at reducing uncertainty in children involved in stressful events are effective.

Our results are consistent with findings that higher self-efficacy is associated with lower psychological distress and fewer mental health problems during the COVID-19 pandemic in youth samples (Cattelino et al. 2023; Morelli et al. 2020). To the best of our knowledge, however, only one correlational study conducted during the COVID-19 outbreak investigated the association of

10991298, 2025, 3, Downloaded from https://onlinelibrary.wiley.com/doi/10.1002/casp.70106 by CochraneItalia, Wiley Online Library on [13/09/2025]. See the Terms and Conditions (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library for rules of use; OA articles are governed by the applicable Creative Commons License

children's self-efficacy with their well-being (Zakeri et al. 2022). Our study extends these findings by reporting the effects of a naturalistic intervention that aimed to improve children's perception of self-efficacy and reduce anxiety over time. It is likely that our intervention also facilitated the sharing of emotional experiences, which is crucial for coping with stressful and anxious situations, especially in children. Participating in playful group activities and following stories where the psychological experiences of protagonists coping with difficult situations are explored helps them to become aware of their emotions (see Cheney et al. 2014, for a review on playful school-based interventions to promote emotion awareness).

We believe that finding ways to help children, teachers, and schools deal with measures to be adopted to prevent the spread of the virus is of primary importance. It is worth noting that not only our study falls within a small research line of practical school-based interventions, but it also provides playful activities that can be autonomously implemented by school teachers, making them a simple but potentially very effective tool to empower children's self-efficacy in emergencies.

Additionally, our data showed that, overall, older children experienced higher levels of anxiety and a smaller decline in it over time. Older children likely experienced higher levels of anxiety during the COVID-19 pandemic because they were more aware of the challenges in adhering to anti-COVID measures and the broader implications of the pandemic. As noted by Cadamuro et al. (2022), this heightened awareness often stems from anxious parental behaviour, which may have unintentionally exposed older children to the gravity of the situation and amplified their worries. Whilst we did not directly measure parental anxiety, it is plausible that older children were more attuned to their parents' fears, further exacerbating their own. The less pronounced reduction in anxiety amongst older children after interventions may reflect the enduring nature of their concerns, making them more resistant to general anxiety-reduction efforts.

5.1 | Limitations and Future Perspectives

We acknowledge some limitations to our research. First, we decided not to enrol a control group and to administer the intervention to the whole school population. Indeed, the intervention was primarily motivated by the school's request and urgency to provide children with a safe and welcoming environment, therefore needing to be implemented from the first day of the new school for all children. Including a control group would have meant selecting classes to (eventually) start the intervention later, thus failing to respond to the school's request to safeguard children's well-being and ultimately resulting in an unethical choice. Plus, using a control group from another school not taking part in the intervention would not have been methodologically appropriate, making it impossible to disentangle the effects of the intervention from those of the school climate. As a second limitation, the sample size does not allow us to detect the trajectory of change across the age range considered. Lastly, we had to use an ad-hoc measure of self-efficacy, which, however, was not independently validated. In this sense, our results should be interpreted with caution.

Future studies are needed to further investigate the effect of age on the intervention outcomes. Moreover, developmental differences in intervention receptivity could be explored by tailoring activities and materials for preschool or middle-school children. Additionally, longitudinal designs could also be employed to track intervention effects over time, shedding light on developmental trajectories and the sustainability of intervention outcomes across different age groups.

5.2 | Conclusions

In conclusion, our findings underline the importance of providing psychological support activities in educational and school contexts during highly stressful periods. We hope that these results will be useful both for the academic and the school communities and will encourage researchers and practitioners to find ways to promote children's well-being during difficult times, such as the COVID-19 pandemic.

Author Contributions

All authors contributed to the study conception and design. Material preparation, data collection and analysis were performed by Elisa Bisagno, Veronica Margherita Cocco, and Loris Vezzali. The first draft of the manuscript was written by Alessia Cadamuro; a second draft was implemented by Alessia Cadamuro, Elisa Bisagno and Elena Trifiletti. All authors read, commented and approved the final manuscript.

Acknowledgments

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors. Open access publishing facilitated by Universita degli Studi di Modena e Reggio Emilia, as part of the Wiley - CRUI-CARE agreement.

Conflicts of Interest

The authors declare no conflicts of interest.

Data Availability Statement

The data that support the findings of this study are available from the corresponding author upon reasonable request.

References

Bandura, A. 1997. *Self-Efficacy: The Exercise of Control*. W.H. Freeman and Company.

Bandura, A. 2008. "An Agentic Perspective on Positive Psychology." In *Positive Psychology: Exploring the Best in People*, edited by S. J. Lopez, vol. 1, 167–196. Praeger Publishers/Greenwood Publishing Group.

Bandura, A., G. V. Caprara, C. Barbaranelli, M. Gerbino, and C. Pastorelli. 2003. "Role of Affective Self-Regulatory Efficacy in Diverse Spheres of Psychosocial Functioning." *Child Development* 74: 769–782. https://doi.org/10.1111/1467-8624.00567.

Benight, C., and A. Bandura. 2004. "Social Cognitive Theory of Posttraumatic Recovery: The Role of Perceived Self-Efficacy." *Behaviour Research and Therapy* 42, no. 10: 1129–1148. https://doi.org/10.1016/j.brat.2003.08.008.

Berrington, A., P. W. F. Smith, and P. Sturgis. 2006. *An Overview of Methods for the Analysis of Panel Data*. ESRC National Centre for Research Methods.

10991298, 2025, 3, Downloaded from https://onlinelibrary.wiley.com/doi/10.1002/casp.70106 by CochraneItalia, Wiley Online Library on [13/09/2025]. See the Terms and Conditions (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library for rules of use; OA articles are governed by the applicable Creative Commons License

Black, T. R., P. Virk, M. L. Woodward, J. N. Stea, and Q. Doan 2023. "Commentary: School closures, the pandemic, and pediatric mental health: Scrutinizing the evidence." *Journal of the Canadian Academy of Child and Adolescent Psychiatry* 32, no. 2: 71.

Boldt, K., M. Coenen, A. Movsisyan, et al. 2021. "Interventions to Ameliorate the Psychosocial Effects of the COVID-19 Pandemic on Children: A Systematic Review." *International Journal of Environmental Research and Public Health* 18, no. 5: 2361. https://doi.org/10.3390/ijerph18052361.

Bonvino, A., A. Calvio, R. Stallone, et al. 2023. "Emotions in Times of Pandemic Crisis Among Italian Children: A Systematic Review." *International Journal of Environmental Research and Public Health* 20, no. 12: 6168. https://doi.org/10.3390/ijerph20126168.

Bozzola, E., P. Ferrara, G. Spina, et al. 2022. "The Pandemic Within the Pandemic: The Surge of Neuropsychological Disorders in Italian Children During the COVID-19 Era." *Italian Journal of Pediatrics* 48, no. 1: 126. https://doi.org/10.1186/s13052-022-01324-4.

Bridley, A., and S. S. Jordan. 2012. "Child Routines Moderate Daily Hassles and Children's Psychological Adjustment." *Children's Health Care* 41, no. 2: 129–144. https://doi.org/10.1080/02739615.2012.657040.

Brooks, S. K., R. K. Webster, L. E. Smith, et al. 2020. "The Psychological Impact of Quarantine and How to Reduce It: Rapid Review of the Evidence." *Lancet* 395, no. 10227: 912–920. https://doi.org/10.1016/S0140-6736(20)30460-8.

Cadamuro, A., E. Bisagno, E. Trifiletti, G. A. Di Bernardo, and E. P. Visintin. 2022. "Parental Support During the COVID-19 Pandemic: Friend or Foe? A Moderation Analysis of the Association Between Maternal Anxiety and Children's Stress in Italian Dyads." *International Journal of Environmental Research and Public Health* 20, no. 1: 268. https://doi.org/10.3390/ijerph20010268.

Cadamuro, A., E. Bisagno, S. Rubichi, et al. 2021. "Distance Learning and Teaching as a Consequence of the COVID-19 Pandemic: A Survey of Teachers and Students of an Italian High School Taking Into Account Technological Issues, Attitudes and Beliefs Toward Distance Learning, Metacognitive Skills." *Journal of e-Learning and Knowledge Society* 17, no. 3: 81–89. https://doi.org/10.20368/1971-8829/1135463.

Capurso, M., J. L. Dennis, L. P. Salmi, C. Parrino, and C. Mazzeschi. 2020. "Empowering Children Through School Re-Entry Activities After the COVID-19 Pandemic." *Continuity in Education* 1, no. 1: 64–82. https://doi.org/10.5334/cie.17.

Capurso, M., T. Pedale, V. Santangelo, L. P. Salmi, and C. Mazzeschi. 2023. "Italian Children's Accounts of the Lockdown: Insights and Perspectives." *Journal of Child and Family Studies* 32, no. 1: 145–159. https://doi.org/10.1007/s10826-022-02508-6.

Cattelino, E., S. Testa, E. Calandri, et al. 2023. "Self-Efficacy, Subjective Well-Being and Positive Coping in Adolescents with Regard to Covid-19 Lockdown." *Current Psychology* 42, no. 20: 17304–17315. https://doi.org/10.1007/s12144-021-01965-4.

Cheney, G., A. Schlösser, P. Nash, and L. Glover. 2014. "Targeted Group-Based Interventions in Schools to Promote Emotional Well-Being: A Systematic Review." *Clinical Child Psychology and Psychiatry* 19, no. 3: 412–438. https://doi.org/10.1177/1359104513489565.

Chorpita, B. F., and D. H. Barlow. 1998. "The Development of Anxiety: The Role of Control in the Early Environment." *Psychological Bulletin* 124, no. 1: 3–21. https://doi.org/10.1037/0033-2909.124.1.3.

Courtney, D., P. Watson, M. Battaglia, B. H. Mulsant, and P. Szatmari. 2020. "COVID-19 Impacts on Child and Youth Anxiety and Depression: Challenges and Opportunities." *Canadian Journal of Psychiatry* 65, no. 10: 688–691. https://doi.org/10.1177/0706743720935646.

Dąbkowska, M., A. Kobierecka-Dziamska, and M. Prusaczyk. 2021. "Anxiety, Coping Strategies, and Resilience Among Children and Adolescents During COVID-19 Pandemic: A Systematic Review." In *Anxiety, Uncertainty, and Resilience During the Pandemic Period: Anthropological and Psychological Perspectives*, edited by F. Gabrielli and F. Irtelli. IntechOpen.

Dąbkowska, M., and A. Dąbkowska-Mika. 2021. "Potential Effects of the COVID-19 Pandemic on Children and Adolescents With Separation Anxiety Disorder." In *Anxiety, Uncertainty, and Resilience During the Pandemic Period: Anthropological and Psychological Perspectives*, edited by F. Gabrielli and F. Irtelli. IntechOpen.

De Miranda, D. M., B. Da Silva Athanasio, A. C. S. Oliveira, and A. C. Simoes-E-Silva. 2020. "How Is COVID-19 Pandemic Impacting Mental Health of Children and Adolescents?" *International Journal of Disaster Risk Reduction* 51: 101845. https://doi.org/10.1016/j.ijdrr.2020.101845.

Duan, L., X. Shao, Y. Wang, et al. 2020. "An Investigation of Mental Health Status of Children and Adolescents in China During the Outbreak of COVID-19." *Journal of Affective Disorders* 275: 112–118. https://doi.org/10.1016/j.jad.2020.06.029.

Finkel, S. E. 1995. *Causal Analysis With Panel Data*. Sage Publications, Inc. https://doi.org/10.4135/9781412983594.

Ghosh, R., M. J. Dubey, S. Chatterjee, and S. Dubey. 2020. "Impact of COVID-19 on Children: Special Focus on the Psychosocial Aspect." *Minerva Pediatrica* 72, no. 3: 226–235. https://doi.org/10.23736/s0026-4946.20.05887-9.

Golberstein, E., H. Wen, and B. F. Miller. 2020. "Coronavirus Disease 2019 (COVID-19) and Mental Health for Children and Adolescents." *JAMA Pediatrics* 174, no. 9: 819–820. https://doi.org/10.1001/jamapediatrics.2020.1456.

Gómez, G., A. Basagoitia, M. S. Burrone, et al. 2021. "Child-Focused Mental Health Interventions for Disasters Recovery: A Rapid Review of Experiences to Inform Return-To-School Strategies After COVID-19." *Frontiers in Psychiatry* 12: 713407. https://doi.org/10.3389/fpsyt.2021.713407.

Gori, M., L. Schiatti, and M. B. Amadeo. 2021. "Masking Emotions: Face Masks Impair How We Read Emotions." *Frontiers in Psychology* 12: 669432. https://doi.org/10.3389/fpsyg.2024.1386937.

Guessoum, S. B., J. Lachal, R. Radjack, et al. 2020. "Adolescent Psychiatric Disorders During the COVID-19 Pandemic and Lockdown." *Psychiatry Research* 291: 113264. https://doi.org/10.1016/j.psychres.2020.113264.

Hernández-Padilla, J. M., J. Granero-Molina, M. D. Ruiz-Fernández, et al. 2020. "Design and Psychometric Analysis of the COVID-19 Prevention, Recognition and Home-Management Self-Efficacy Scale." *International Journal of Environmental Research and Public Health* 17, no. 13: 4653. https://doi.org/10.3390/ijerph17134653.

Jian, Y., T. Hu, Y. Zong, and W. Tang. 2023. "Relationship Between Post-Traumatic Disorder and Posttraumatic Growth in COVID-19 Home-Confined Adolescents: The Moderating Role of Self-Efficacy." *Current Psychology* 42, no. 20: 17444–17453. https://doi.org/10.1007/s12144-021-02515-8.

Jiao, W. Y., L. N. Wang, J. Liu, et al. 2020. "Behavioral and Emotional Disorders in Children During the COVID-19 Epidemic." *Journal of Pediatrics* 221: 264–266. https://doi.org/10.1016/j.jpeds.2020.03.013.

Kalaskar, R., S. Balasubramanian, and A. Kalaskar. 2021. "Assessment of Awareness and Behavioural Patterns Among Children Regarding COVID-19." *Journal of Clinical and Diagnostic Research* 15, no. 2: 14925. https://doi.org/10.7860/JCDR/2021/47485.14925.

Korte, C., R. D. Friedberg, T. Wilgenbusch, et al. 2022. "Intolerance of Uncertainty and Health-Related Anxiety in Youth Amid the COVID-19 Pandemic: Understanding and Weathering the Continuing Storm." *Journal of Clinical Psychology in Medical Settings* 29, no. 3: 645–653. https://doi.org/10.1007/s10880-021-09816-x.

Kovesdi, A., K. Toro, E. Hadhazi, et al. 2020. "The Protective Role of Self-Efficacy for Resilience in the COVID-19 Period." *Acta Scientific Neurology* 3, no. 11: 87–91. https://doi.org/10.31080/asne.2020.03.0276.

10991298, 2025, 3, Downloaded from https://onlinelibrary.wiley.com/doi/10.1002/casp.70106 by CochraneItalia, Wiley Online Library on [13/09/2025]. See the Terms and Conditions (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library for rules of use; OA articles are governed by the applicable Creative Commons License

Larosa, E., O. Djuric, M. Cassinadri, et al. 2020. "Secondary Transmission of COVID-19 in Preschool and School Settings in Northern Italy After Their Reopening in September 2020: A Population-Based Study." *Eurosurveillance* 25, no. 49: 2001911. https://doi.org/10.2807/1560-7917.es.2020.25.49.2001911.

Liu, Y., S. Yue, X. Hu, et al. 2021. "Associations Between Feelings/Behaviors During COVID-19 Pandemic Lockdown and Depression/Anxiety After Lockdown in a Sample of Chinese Children and Adolescents." *Journal of Affective Disorders* 284: 98–103. https://doi.org/10.1016/j.jad.2021.02.001.

Loades, M. E., E. Chatburn, N. Higson-Sweeney, et al. 2020. "Rapid Systematic Review: The Impact of Social Isolation and Loneliness on the Mental Health of Children and Adolescents in the Context of COVID-19." *Journal of the American Academy of Child & Adolescent Psychiatry* 59, no. 11: 1218–1239.e3. https://doi.org/10.1016/j.jaac.2020.05.009.

Morelli, M., E. Cattelino, R. Baiocco, et al. 2020. "Parents and Children During the COVID-19 Lockdown: The Influence of Parenting Distress and Parenting Self-Efficacy on Children's Emotional Well-Being." *Frontiers in Psychology* 11: 584645. https://doi.org/10.3389/fpsyg.2020.584645.

Morelli, M., E. Cattelino, R. Baiocco, et al. 2021. "Parents' Psychological Factors Promoting Children's Mental Health and Emotional Regulation During the COVID-19 Lockdown." *Maltrattamento e Abuso All'infanzia* 1: 47–63. https://doi.org/10.3280/mal2021-001004.

Pavarini, G. 2020. "Peer Support Training for Adolescents During the COVID-19 Outbreak: A Pilot Randomised Controlled Trial." ISRCTN Registry. https://www.isrctn.com/ISRCTN99248812.

Pavarini, G., T. Reardon, A. Hollowell, et al. 2022. "Online Peer Support Training to Promote Adolescents' Emotional Support Skills, Mental Health and Agency During COVID-19: Randomised Controlled Trial and Qualitative Evaluation." *European Child & Adolescent Psychiatry* 32, no. 6: 1119–1130. https://doi.org/10.1007/s00787-021-01933-0.

Petretto, D. R., I. Masala, and C. Masala. 2020. "School Closure and Children in the Outbreak of COVID-19." *Clinical Practice and Epidemiology in Mental Health* 16, no. 1: 189–191. https://doi.org/10.2174/1745017902016010189.

Raffaele, C. T., P. Khosravi, A. Parker, S. Godovich, B. Rich, and N. Adleman. 2021. "Social–Emotional Attention in School-Age Children: A Call for School-Based Intervention During COVID-19 and Distance Learning." *Children & Schools* 43, no. 2: 107–117. https://doi.org/10.1093/cs/cdab010.

Reynolds, C. R., and B. O. Richmond. 2008. *Revised Children's Manifest Anxiety Scale*. 2nd ed. Western Psychological Services.

Schwarzer, R., ed. 1992. *Self-Efficacy: Thought Control of Action*. 1st ed. Taylor & Francis.

Shahrour, G., and L. A. Dardas. 2020. "Acute Stress Disorder, Coping Self-Efficacy, and Subsequent Psychological Distress Among Nurses Amid COVID-19." *Journal of Nursing Management* 28, no. 7: 1686–1695. https://doi.org/10.1111/jonm.13124.

Shen, K., Y. Yang, T. Wang, et al. 2020. "Diagnosis, Treatment, and Prevention of 2019 Novel Coronavirus Infection in Children: Experts' Consensus Statement." *World Journal of Pediatrics* 16, no. 3: 223–231. https://doi.org/10.1007/s12519-020-00343-7.

Śniadach, J., S. Szymkowiak, P. Osip, and N. Waszkiewicz. 2021. "Increased Depression and Anxiety Disorders During the COVID-19 Pandemic in Children and Adolescents: A Literature Review." *Lifestyles* 11, no. 11: 1188. https://doi.org/10.3390/life11111188.

Taylor, S. 2022. "The Psychology of Pandemics." *Annual Review of Clinical Psychology* 18, no. 1: 581–609. https://doi.org/10.1146/annurev-clinpsy-072720-020131.

Thompson, R. R., N. M. Jones, A. M. Freeman, E. A. Holman, D. R. Garfin, and R. C. Silver. 2022. "Psychological responses to U.S. statewide restrictions and COVID-19 exposures: A longitudinal study. Health psychology." *Official journal of the Division of Health Psychology, American Psychological Association* 41, no. 11: 817–825. https://doi.org/10.1037/hea0001233.

Tymofiyeva, O. A. 2020. "Randomized Controlled Feasibility Study of Emotional Well-Being of Adolescents Undergoing a Mindfulness Training During the COVID-19 Pandemic." ClinicalTrials.gov. https://clinicaltrials.gov/ct2/show/NCT04548544.

Viner, R. M., S. J. Russell, H. Croker, et al. 2020. "School Closure and Management Practices During Coronavirus Outbreaks Including COVID-19: A Rapid Systematic Review." *Lancet Child & Adolescent Health* 4, no. 5: 397–404. https://doi.org/10.1016/s2352-4642(20)30095-x.

Wendel, F., S. Bender, E. Breitinger, et al. 2024. "Interventions to Build Resilience and to Ameliorate Negative Psychosocial Effects of the COVID-19 Pandemic on Children and Adolescents: A Systematic Review and Meta-Analysis." *European Child & Adolescent Psychiatry* 33, no. 11: 3707–3726. https://doi.org/10.1007/s00787-023-02280-y.

Xie, X., Q. Xue, Y. Zhou, et al. 2020. "Mental Health Status Among Children in Home Confinement During the Coronavirus Disease 2019 Outbreak in Hubei Province, China." *JAMA Pediatrics* 174, no. 9: 898–900. https://doi.org/10.1001/jamapediatrics.2020.1619.

Zakeri, M. A., A. Dakkalirad, F. Saedi, et al. 2022. "Depression and Self-Efficacy Among Iranian Children During the Prevalence of COVID-19 Disease." *Frontiers in Pediatrics* 10: 888712. https://doi.org/10.3389/fped.2022.888712.

Zepeda, M. S., S. Deighton, V. Markova, J. W. Madsen, and N. Racine. 2023. "iCOPE With COVID-19: A Brief Telemental Health Intervention for Children and Adolescents During the COVID-19 Pandemic." *Cognitive and Behavioral Practice* 30, no. 2: 208–217. https://doi.org/10.1016/j.cbpra.2021.10.001.

Zhang, Y. S. D., K. A. Noels, H. Young-Leslie, and N. M. Lou. 2022. ""Responsible" or "Strange?" Differences in Face Mask Attitudes and Use Between Chinese and Non-East Asian Canadians During COVID-19's First Wave." *Frontiers in Psychology* 13: 853830. https://doi.org/10.3389/fpsyg.2022.853830.

Zheng, Y. 2020. "Reducing Eye Strain and Anxiety Using a Digital Intervention During Online Learning Class Recess Among Children at Home: A Randomized Controlled Trial (RESILIENT)." ClinicalTrials.gov. https://clinicaltrials.gov/ct2/show/NCT04309097.

Zhou, C., X. D. Yue, X. Zhang, F. Shangguan, and X. Y. Zhang. 2021. "Self-Efficacy and Mental Health Problems During COVID-19 Pandemic: A Multiple Mediation Model Based on the Health Belief Model." *Personality and Individual Differences* 179: 110893. https://doi.org/10.1016/j.paid.2021.110893.

Zhou, S. J., L. G. Zhang, L. L. Wang, et al. 2020. "Prevalence and Socio-Demographic Correlates of Psychological Health Problems in Chinese Adolescents During the Outbreak of COVID-19." *European Child & Adolescent Psychiatry* 29, no. 6: 749–758. https://doi.org/10.1007/s00787-020-01541-4.

10991298, 2025, 3, Downloaded from https://onlinelibrary.wiley.com/doi/10.1002/casp.70106 by CochraneItalia, Wiley Online Library on [13/09/2025]. See the Terms and Conditions (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library for rules of use; OA articles are governed by the applicable Creative Commons License